

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

AWHITU WINDFARMS LTD
NZBN: 9429031873031

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Date audit commenced: 3 September 2022

Date audit report completed: 31 October 2022

Audit report due date: 23 November 2022

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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Awhitu Windfarms Limited (Awhitu Windfarms)**, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.2.

Awhitu Windfarms has two participant codes, AWFL and MYST.

AWFL is used for the HHR generation at ICP 1099578842CN302. EMS manages registry data and completes settlement processes as Awhitu Windfarms' agent. No registry activity occurred during the audit period.

MYST has supplied four NHH settled meter category 1 and 2 ICPs during the audit period. NHH submission, registry information management and switching is completed by JC Consulting. Two ICPs switched in and one ICP switched out during the audit period.

The audit found three minor non-compliances with very low impact:

- Awhitu Windfarms' MYST code supplies one external customer and there is no website which provides information on Utilities Disputes, however information on Utilities Disputes is clearly displayed on the customer's monthly invoice, which ensures that the customer is aware that the Utilities Disputes is available to them,
- one ICP has an incorrect ANZSIC code recorded on the registry, and
- the meter reading frequency reports provided to the Authority for MYST omitted NSP GLN0332 for some months, and the issue was resolved as soon as it was discovered during the audit.

The audit risk rating is three indicating that the next audit should be due in 24 months on 23 November 2024. I agree with this recommendation.

The matters raised are shown in the tables below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Provision of information on dispute resolution scheme	2.19	11.30A	There is no website for Awhitu Windfarms, therefore information on Utilities Disputes is not provided on the website.	Strong	Low	1	Unknown
ANZSIC codes	3.6	9 (1(k) of Schedule 11.1	ICP 0000294920TE968 has an incorrect ANZSIC code applied.	Strong	Low	1	Unknown
NHH meters interrogated annually	6.9	8(1) Schedule 15.2	The meter reading frequency reports provided to the Authority omitted NSP GLN0332 for some months.	Strong	Low	1	Cleared
Future risk rating						3	

Future risk rating	0	1-3	4-14	16-40	41-55	55+
Indicative audit frequency	36 months	24 months	18 months	12 months	6 months	3 months

RECOMMENDATIONS

Subject	Section	Description	Recommendation
			Nil

ISSUES

Subject	Section	Description	Issue
		Nil	

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

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

1.2. Structure of Organisation

Awhitu Windfarms is registered on the companies register with one director, and one shareholder.

1.3. Persons involved in this audit

Auditor:

Tara Gannon

Veritek Limited

Electricity Authority Approved Auditor

Personnel assisting with this audit:

Name	Title	Company
John Sturgess	Chief Operating Officer	Awhitu Windfarms Ltd
Chrissy Burrows	Director/Consultant	Momentous Consulting Ltd
Ian Martin	Metering Services Manager	EMS
John Candy	Director	JC Consulting 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

Use of agents was discussed with Awhitu Windfarms.

Audit commentary

AWFL

AWFL supplies the HHR generation at ICP 1099578842CN302. EMS manages registry data and completes settlement processes as Awhitu Windfarms' agent.

MYST

MYST has supplied four NHH settled meter category 1 and 2 ICPs during the audit period. JC Consulting manages switching, registry data and settlement processes as Awhitu Windfarms' agent. Counties Power is the MEP for all MYST ICPs and IntelliHUB provides meter readings as an MEP for the AMI capable meters. The other meters are manually read by Awhitu Windfarms.

1.5. Hardware and Software

AWFL

EMS' systems are detailed in their agent audit report.

MYST

JC Consulting uses the following software:

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

1.6. Breaches or Breach Allegations

There were no alleged breaches relevant to the scope of the audit during the audit period.

1.7. ICP Data

AWFL

AWFL has supplied HHR ICP 1099578842CN302 since it was connected on 23 January 2020. It has meter category 5 and has been continuously active since it was initially electrically connected.

MYST

All active ICPs are summarised by metering category in the table below.

Metering Category	2022	2021	2020
1	2	2	2
2	1	1	-
3	-	-	-
4	-	-	-
5	-	-	-

9	-	-	-
Blank	-	-	-

All ICPs are summarised in the table below.

Status	2022	2021	2020
Active (2,0)	3	3	3
Inactive – new connection in progress (1,12)	-	-	-
Inactive – vacant (1,4)	-	-	-
Inactive – electrically disconnected remotely by AMI meter (1,7)	-	-	-
Inactive – electrically disconnected at pole fuse (1,8)	-	-	-
Inactive – electrically disconnected due to meter disconnected (1,9)	-	-	-
Inactive – electrically disconnected at meter box fuse (1,10)	-	-	-
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	-	-	-
Inactive – reconciled elsewhere (1,5)	-	-	-
Decommissioned (3)	1	1	-

1.8. Authorisation Received

All information was directly provided by Awhitu Windfarms, JC Consulting, Chrissy Burrows and EMS. A letter of authorisation was not required.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Awhitu Windfarms, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V7.2.

The scope of the audit is shown below.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing Data
(a) - Maintaining registry information and performing customer and embedded generator switching	EMS (AWFL HHR) JC Consulting (MYST NHH)	
(b) – Gathering and storing raw meter data	EMS (AWFL HHR)	IntelliHUB for Counties Power

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing Data
(c)(iii) - Creation and management of volume information	EMS (AWFL HHR) JC Consulting (MYST NHH)	
(d) (i) – Calculation of ICP days	EMS (AWFL HHR) JC Consulting (MYST NHH)	
(d)(ii) - delivery of electricity supplied information under clause 15.7	JC Consulting	
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	EMS (AWFL HHR)	
(e) – Provision of submission information for reconciliation	EMS (AWFL HHR) JC Consulting (MYST NHH)	

EMS' agent audit is expected to be submitted with this report. JC Consulting does not have a current agent audit report, and activities they completed on behalf of Awhitu Windfarms were reviewed as part of this audit.

IntelliHUB provides data for Counties Power as an MEP and is subject to a separate audit regime.

1.10. Summary of previous audit

Awhitu Windfarms' previous audit was conducted in May 2021 by Steve Woods of Veritek Limited. The summary tables below show the statuses of the non-compliances and recommendations raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Status
Relevant information	2.1	11.2, 15.2	No electricity supplied file for AWFL. Information provided for ICP 0071551401CNEF2 was not complete and accurate because the read dispute process was not used to replace an incorrect estimate from the losing trader.	Cleared, AV120s have been supplied since May 2021. The reads have not been renegotiated. Because non-compliance was recorded in the previous audit and the 14-month revision has now passed I have not re-recorded non-compliance for this issue.
Electricity supplied	11.3	15.7	An AV120 file is not provided for AWFL.	Cleared, AV120s have been supplied since May 2021.
HHR aggregates	11.4	15.8	HHR aggregates file does not contain electricity supplied information.	Cleared, the code has been revised.

Subject	Section	Description	Recommendation	Status
NHH interrogation log	6.11	NHH interrogation log	Ensure the ICP identifier is included in the title of the email for the manually read ICP.	Not adopted

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

The process to find and correct incorrect information was examined. I checked all registry fields and a sample of submission files to confirm compliance.

Audit commentary

AWFL

No inaccurate registry or submission information was identified.

Issues raised in the previous audit were re-checked:

1. AWFL commenced supplying ICP 1099578842CN302 on 23 January 2020 but did not begin submitting AV120 reports for the load until May 2021, after the missing AV120 submissions were recorded as non-compliance in the previous audit. The load is based on the volume for the previous month, and I verified this by checking the AV120 reports for May 2021 to May 2022 against expected values. The non-compliance is cleared.
2. The previous audit found a negative volume was reported for ICP 0071551401CNEF2, because the estimated switch in reading on 10 June 2020 was higher than its actual decommissioning reading on 19 February 2021. The reads have not been renegotiated. Because non-compliance was recorded in the previous audit and the 14-month revision has now passed I have not re-recorded non-compliance for this issue.

MYST

No inaccurate registry or submission information was identified.

NHH corrections are processed by JC Consulting as MYST's agent. There are validation processes in place to identify meter defects, bridged meters, incorrect multipliers and inactive ICPs with consumption. All ICPs supplied were active for the portion of the audit period which they were supplied, and no bridged meters or defects were identified.

Audit outcome

Compliant

2.2. Provision of information (Clause 15.35)

Code reference

Clause 15.35

Code related audit information

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

Audit observation

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

Audit commentary

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

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

I checked data transmission process.

Audit commentary

AWFL

EMS collects and processes the data for ICP 1099578842CN302, and compliance is recorded in their agent audit report.

MYST

ICPs 1099566354CNB0F and 0007155140CN800 have Counties Power AMI meters, and data is collected by IntelliHUB and provided to JC Consulting via SFTP. I matched a sample of 42 readings between April 2021 and July 2022 from the NHH volumes submission summaries to the files provided by IntelliHUB and found the readings matched.

ICPs 0000294920TE968 and 1099566453CN9C7 have Counties Power non-AMI meters, photo readings are taken by Awhitu Windfarms staff and emailed to JC Consulting with the read date and time. I matched a sample of 11 readings between April 2021 and July 2022 from the NHH volumes submission summaries to the files provided by Awhitu Windfarms and found the readings matched.

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

For NHH data, I evaluated audit trails in JC Consulting's RM Tool.

For HHR data, the agent audit report was reviewed.

Audit commentary

AWFL

Compliance is recorded in the EMS audit report.

MYST

The RM TOOL used by JC Consulting contains a detailed audit trail for data gathering, validation, and correction.

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

One external customer is supplied, and Awhitu Windfarms' terms and conditions were reviewed.

Audit commentary

This clause is not applicable for ICPs where the customer is Awhitu Windfarms or its owners or associated companies.

One external customer is supplied, and Awhitu Windfarms' terms and conditions includes consent to access for authorised parties for the duration of the contract.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

One external customer is supplied, and Awhitu Windfarms' terms and conditions were reviewed.

Audit commentary

This clause is not applicable for ICPs where the customer is Awhitu Windfarms or its owners or associated companies.

One external customer is supplied, and Awhitu Windfarms' terms and conditions includes consent to access for authorised parties for the duration of the contract.

Awhitu Windfarms confirmed that there have been no instances where access could not be arranged for other parties during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

I checked whether any metering installations had loss compensation and I checked the terms and conditions.

Audit commentary

AWFL

AWFL has one category 5 metering installation, and loss compensation is not required.

MYST

MYST supplies only category 1 and 2 ICPs. Existing practices in the electrical industry achieve compliance with regards to the MYST ICPs.

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

One external customer is supplied, and Awhitu Windfarms' terms and conditions were reviewed.

Audit commentary

This clause is not applicable for ICPs where the customer is Awhitu Windfarms or its owners or associated companies.

One external customer is supplied, and Awhitu Windfarms' terms and conditions have specific clauses covering this requirement.

Audit outcome

Compliant

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

I checked whether any new connections had been conducted for AWFL or MYST.

Audit commentary

No new connections were conducted, and none are planned.

Audit outcome

Compliant

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

Code reference

Clause 10.33(1)

Code related audit information

A 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

I checked whether any new connections had been conducted for AWFL or MYST.

Audit commentary

No new connections were conducted, and none are planned.

Audit outcome

Compliant

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

I checked whether any AWFL or MYST ICPs were electrically connected during the audit period.

Audit commentary

All ICPs were active for all days they were supplied during the audit period, and no electrical connections occurred. No bridged meters were identified.

Audit outcome

Compliant

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

AWFL and MYST only operate on the Counties Power network. I checked the existence of a Use of System agreement by referring to the previous audit report.

Audit commentary

The previous audit report confirms an agreement is in place with Counties Power.

Audit outcome

Compliant

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

The AWFL ICP has Accucal as the MEP and the MYST ICPs have Counties Power as the MEP. I checked the existence of metering agreements.

Audit commentary

Agreements are in place with both MEPs. The Counties Power agreement forms part of the UoSA.

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

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

No ICPs were reconnected during the audit period.

Audit outcome

Compliant

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

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

No ICPs were disconnected during the audit period.

Audit outcome

Compliant

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 time 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 personnel 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

I checked whether any of the scenarios above had occurred or were likely to occur.

Audit commentary

There were no examples of seals being removed or broken during the audit period.

Audit outcome

Compliant

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

I checked whether any meters had been bridged during the audit period.

Audit commentary

No meter bridging had occurred, and it is not likely this will occur given the scope of Awhitu Windfarms' operation.

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

An invoice copy was provided to confirm compliance.

Audit commentary

Invoices include the ICP number.

Audit outcome

Compliant

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

One external customer is supplied by MYST, and processes to provide information on Utilities Disputes was reviewed.

I checked whether clear and prominent information on Utilities Disputes is displayed on the website, in outbound communications regarding services and billing, and response to customer queries.

Audit commentary

Compliance was checked:

- there is no website for Awhitu Windfarms,
- the invoice template contains appropriate information regarding Utilities Disputes, and
- there is one external customer and information on Utilities Disputes is expected to be provided in response to queries verbally or in writing.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.19 With: Clause 11.30A From: 01-May-21 To: 25-Oct-22	There is no website for Awhitu Windfarms, therefore information on Utilities Disputes is not provided on the website. Potential impact: Low Actual impact: Low Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong, and the impact is low. There is one external customer, and they are advised of Utilities Disputes monthly, on their invoice.		
Actions taken to resolve the issue		Completion date	Remedial action status
No comment			Unknown
Preventative actions taken to ensure no further issues will occur		Completion date	
No comment			

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

Awhitu Windfarms supplies two ICPs with residential ANZSIC codes:

- ICP 0000294920TE968 is used for nursery and floriculture production but has a residential ANZSIC code applied and information on Powerswitch is not required to be provided under Clause 11.30B; non-compliance is recorded in **section 3.6** for the incorrect ANZSIC code, and
- ICP 0007155140CN800 is genuinely residential and owned by the director of Awhitu Windfarms.

Audit commentary

Awhitu Windfarms supplies one genuinely residential ICP. Because Awhitu Windfarms is both the customer and the trader, information on Powerswitch is not required to be provided.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

I checked whether any new connections had been conducted for AWFL or MYST.

Audit commentary

No new connections were conducted, and none are planned.

Audit outcome

Compliant

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

All trader maintained registry fields for all ICPs were confirmed as correct. The only trader initiated registry activity during the audit period related to switching for two MYST ICPs.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

The only trader initiated registry activity during the audit period related to switching for two MYST ICPs, and the updates were completed on time.

Audit outcome

Compliant

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

All ICPs have an MEP and at least one meter channel recorded.

No MEP nominations, status updates or decommissions were made during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

No new connections were completed during the audit period.

The only trader initiated registry activity during the audit period related to switching for two MYST ICPs, and the updates were completed on time.

Audit outcome

Compliant

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

Code reference

Clause 9 (1(k) of Schedule 11.1

Code related audit information

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

Audit observation

ANZSIC codes were checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

ANZSIC codes are correct for all ICPs supplied except 0000294920TE968 which is used for nursery and floriculture production but has a residential ANZSIC code applied.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: Clause 9 (1(k) of Schedule 11.1 From: 21-Mar-22 To: 10-Oct-22	ICP 0000294920TE968 has an incorrect ANZSIC code applied. Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because all ANZSIC codes are correct apart from ICP 0000294920TE968. The audit risk rating is low because there is no impact on settlement outcomes and a low impact on the Electricity Authority's reporting accuracy.		
Actions taken to resolve the issue		Completion date	Remedial action status
No comment			Unknown
Preventative actions taken to ensure no further issues will occur		Completion date	
No comment			

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

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

Awhitu Windfarms does not have any unmetered load and does not intend to deal with unmetered load. If unmetered load is connected in the future, it will be settled as NHH by MYST using JC Consulting's existing submission processes for unmetered load.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

All ICPs supplied during the audit period have had active status correctly assigned, and no status updates have occurred.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

- *electricity cannot flow at that ICP (clause 19(a)); or*

- *submission information related to the ICP is not required by the reconciliation manager for the purpose of compiling reconciliation information (clause 19(b)).*

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

All ICPs supplied during the audit period have had active status correctly assigned, and no status updates have occurred.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

Whilst this is a distributor's code obligation, I investigated whether any queries had been received from distributors in relation to ICPs at the "new" or "ready" status for more than 24 months.

Audit commentary

There are no ICPs at the "new" or "ready" status and it's unlikely there will be in future, but it will continue to be checked during future audits.

Audit outcome

Compliant

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

Code reference

Clause 2 Schedule 11.3

Code related audit information

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

Awhitu Windfarms' processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

MYST

Two transfer switch NT files were issued by MYST for ICPs 1099566354CNB0F and 0000294920TE968. Both of the files were issued related to ICPs transferred between codes owned by Awhitu Windfarms' director and the correct switch type was applied.

AWFL

No switching activity occurred for AWFL.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No transfer switch AN files were issued by AWFL or MYST during the audit period, and no incoming transfer switch NT files were received.

Audit outcome

Compliant

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

Code reference

Clause 5 Schedule 11.3

Code related audit information

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No transfer switch CS files were issued by AWFL or MYST during the audit period, and no incoming transfer switch NT files were received.

Audit outcome

Compliant

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

Code reference

Clause 6(1) and 6A Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No RR or AC files were issued to or received by AWFL or MYST during the audit period.

ICPs 1099566354CNB0F and 0000294920TE968 switched in to MYST as transfer switches, and I confirmed that the agreed switch readings were applied for settlement.

Audit outcome

Compliant

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

Code reference

Clause 6(2) and (3) Schedule 11.3

Code related audit information

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No RR or AC files were issued to or received by AWFL or MYST during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 11.3

Code related audit information

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No RR or AC files were issued to or received by AWFL or MYST during the audit period. No readings have been disputed.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

- *a proposed event date (clause 9(2)(a)); and*

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

Awhitu Windfarms' processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind.

No switch move NT files were issued during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10(1) Schedule 11.3

Code related audit information

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

- *10(1)(a) If the losing trader accepts the event date proposed by the gaining trader, the losing trader must complete the switch by providing to the registry manager:

 - o confirmation of the switch event date; and
 - o a valid switch response code; and
 - o final information as required under clause 11; or*
- *10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—

 - o is not earlier than the gaining trader's proposed event date, and
 - o is no later than 10 business days after the date the losing trader receives notice, or*
- *10(1)(c) request that the switch be withdrawn in accordance with clause 17.*

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

MYST

One switch move AN was issued for MYST ICP 1099566354CNBOF. The AN was issued within one business day of receipt of the NT and the correct AN response code was applied. No incoming switch move NT files were received for other ICPs.

AWFL

No switch move AN files were issued by AWFL during the audit period, and no incoming switch move NT files were received.

Audit outcome

Compliant

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

MYST

MYST ICP 1099566354CNB0F switched out, and the AN proposed event date and switch completion date matched the gaining trader's requested date. The switch was completed as required by this clause.

AWFL

No switch move AN files were issued by AWFL during the audit period, and no incoming switch move NT files were received.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 11.3

Code related audit information

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

MYST

One switch move CS was issued for MYST ICP 1099566354CNB0F. The CS file was issued on time and the file content was correct. No incoming switch move NT files were received for other ICPs.

AWFL

No switch move CS files were issued by AWFL during the audit period, and no incoming switch move NT files were received.

Audit outcome

Compliant

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

Code reference

Clause 12 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No RR or AC files were issued to or received by AWFL or MYST during the audit period.

One outgoing switch move was completed for MYST, and I confirmed that the agreed switch reading was applied for settlement.

Audit outcome

Compliant

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

Code reference

Clause 14 Schedule 11.3

Code related audit information

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

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

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

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

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

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

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

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No HH switch requests were issued by AWFL or MYST during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 15 Schedule 11.3

Code related audit information

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No HH AN files were issued by AWFL or MYST during the audit period, and no incoming HH NT files were received.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 11.3

Code related audit information

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

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No HH CS files were issued by AWFL or MYST during the audit period.

Audit outcome

Compliant

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

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

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

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

Audit observation

I checked the registry to identify all switches during the audit period and reviewed all switch events to determine compliance.

Audit commentary

No NW or AW files were issued to or received by AWFL or MYST during the audit period.

Audit outcome

Compliant

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The meter reading process in relation to meter reads for switching purposes was examined.

Audit commentary

One switch move CS was issued for MYST ICP 1099566354CNB0F, and the CS event reading was correct. Awhitu Windfarms' policy regarding the management of meter reading expenses is compliant.

Audit outcome

Compliant

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

Code reference

Clause 11.15AA to 11.15AC

Code related audit information

A losing retailer (including any party acting on behalf of the retailer) must not initiate contact to save or win back any customer who is switching away or has switched away for 180 days from the date of the switch.

The losing retailer may contact the customer for certain administrative reasons and may make a counteroffer only if the customer initiated contact with the losing retailer and invited the losing retailer to make a counteroffer.

The losing retailer must not use the customer contact details to enable any other retailer (other than the gaining retailer) to contact the customer.

Audit observation

No switch withdrawals have been issued during the audit period. Awhitu Windfarms does not have a "saves or win-backs" capability.

Audit commentary

No NW or AW files were issued to or received by AWFL or MYST during the audit period. Awhitu Windfarms does not have a "saves or win-backs" capability.

Audit outcome

Compliant

5. MAINTENANCE OF UNMETERED LOAD

5.1. Maintaining shared unmetered load (Clause 11.14)

Code reference

Clause 11.14

Code related audit information

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

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

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

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

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

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

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

Awhitu Windfarms does not have any unmetered load and does not intend to deal with unmetered load.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (2)(b)

Code related audit information

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

Awhitu Windfarms does not have any unmetered load and does not intend to deal with unmetered load.

Audit outcome

Compliant

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

Awhitu Windfarms does not have any unmetered load and does not intend to deal with unmetered load.

Audit outcome

Compliant

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

Code reference

Clause 11 Schedule 15.3, Clause 15.37B

Code related audit information

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

Awhitu Windfarms does not have any unmetered load and does not intend to deal with unmetered load.

Audit outcome

Compliant

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

Code related audit information

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

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

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

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

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

Audit observation

I checked the registry records and a sample of submission files to determine compliance.

Audit commentary

All ICPs supplied by AWFL and MYST are metered with at least one meter channel and an MEP recorded. No load is submitted by subtraction.

None of the ICPs have unmetered load or distributed generation recorded by the trader or distributor. There is one embedded generation station, which has appropriate import/export metering and both channels are submitted by EMS as an agent to Awhitu Windfarms.

All ICPs are active with consumption recorded. No status updates occurred during the audit period and no bridged meters were identified.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

- *provide to the grid owner a copy of the metering installation design (before ordering the equipment)*
- *provide at least three months for the grid owner to review and comment on the design*

- respond within three 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

The NSP table was reviewed.

Audit commentary

Review of the NSP table confirmed that Awhitu Windfarms is not responsible for any GIPs.

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

I checked the registry records for all AWFL and MYST ICPs.

Audit commentary

Awhitu Windfarms has only used the HHR and RPS profiles, and control devices are not used for reconciliation purposes.

Audit outcome

Compliant

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined. No examples of defective meters were identified during the audit period.

Audit commentary

Any defective meters would be identified through the data validation process, or from information provided by the metering data provider. EMS and JC Consulting have validations in place to identify potential defective meters.

Upon identifying a possible defective meter, notification will be provided to the MEP. No defective meters were identified during the audit period, so it was not possible to review examples of this process.

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

AWFL

HHR data is collected by EMS, and data transmission and clock synchronisation processes were reviewed as part of their agent audit. Examples of clock synchronisation events outside acceptable thresholds were requested.

MYST

ICPs 1099566354CNBOF and 0007155140CN800 have Counties Power AMI meters, and data is collected by IntelliHUB and provided to JC Consulting via SFTP. IntelliHUB report any clock synchronisation errors to JC Consulting.

ICPs 0000294920TE968 and 1099566453CN9C7 have Counties Power non-AMI meters, photo readings are taken by Awhitu Windfarms staff and emailed to JC Consulting with the read date and time.

Audit commentary

AWFL

HHR data transmission and clock synchronisation was reviewed as part of EMS's agent audit, and compliance is recorded. No defective HHR meters or clock synchronisation events outside the permissible thresholds have been identified during the audit period.

MYST

All information used to determine volume information is collected from the services interface or the metering installation by Awhitu Windfarms or the MEP. Fulfilment of the interrogation systems requirements, and clock synchronisation was examined as part of the MEP audit.

IntelliHUB has appropriate event management processes and will advise JC Consulting if any events or clock errors are present. No events requiring action have been identified during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined.

Audit commentary

AWFL

AWFL only supplies one HHR ICP and electronic meter readings are sourced from the raw meter data.

MYST

NHH data is collected for the four MYST ICPs.

ICPs 1099566354CNBOF and 0007155140CN800 have Counties Power AMI meters, and data is collected by IntelliHUB and provided to JC Consulting via SFTP.

ICPs 0000294920TE968 and 1099566453CN9C7 have Counties Power non-AMI meters, photo readings are taken by Awhitu Windfarms staff and emailed to JC Consulting with the read date and time. I matched a sample of 11 of these readings between April 2021 and July 2022 from the NHH volumes submission summaries to the files provided by Awhitu Windfarms and found the readings matched.

As part of the reading process, Awhitu Windfarms checks for missing and broken seals, signs of tampering or damage, signs of phase failure and signs of electrical safety issues. The photos provided show the meter condition and sometimes additional text is added stating that no meter condition issues were found.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

The process of the application of meter readings was examined.

Audit commentary

AWFL

AWFL only supplies one HHR ICP.

MYST

I checked a sample of 42 AMI readings provided by IntelliHUB and 11 readings provided by Awhitu Windfarms against NHH volumes submission summary information and confirmed that correct read dates and times were recorded. I also confirmed that the switch event readings for the two switches in and one

switch out were correctly applied for reconciliation, and that the switch event read was correctly recorded in the outgoing CS file.

Audit outcome

Compliant

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

Code reference

Clause 7(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period, to identify any ICPs where the period of supply ended during the audit period.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and its period of supply did not end during the audit period.

MYST

One ICP had its period of supply end during the audit period. ICP 1099566354CNB0F switched out during the audit period and actual readings were obtained from IntelliHUB during the period of supply.

Audit outcome

Compliant

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

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

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

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

Audit observation

The meter reading process was examined. Monthly reports for the audit period were provided and reviewed to determine whether they met the requirements of clauses 8 and 9 of schedule 15.2.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

Monthly meter reading reports were provided for March 2022 to July 2022, and all ICPs supplied for more than 12 months had actual readings received in the previous 12 months.

The reports provided to the Authority were in the correct format and submitted on time. I found that GLN0332 was missing from the meter reading frequency reports provided for March 2022 to July 2022 because a bug within the report excluded any NSPs where there was no trader start date within the last year, and the start dates for the ICPs connected to GLN0332 were 6 June 2020 and 22 January 2021. The report code was corrected during the audit, and a copy of the report for August 2022 was provided showing that GLN0332 was included, and the issue was resolved.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.9 With: Clause 8(1) Schedule 15.2 From: 01-Mar-22 To: 31-Jul-22	The meter reading frequency reports provided to the Authority omitted NSP GLN0332 for some months. Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because the report content is now correct, and the report logic was corrected as soon as practicable after JC Consulting was advised of the omission by the auditor. The report is relied on to determine compliance with the meter reading requirements, and the impact is assessed to be low because all ICPs connected to GLN0332 were read in the previous four and 12 months.		
Actions taken to resolve the issue		Completion date	Remedial action status
No comment			Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
No comment			

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 four months for 90% of the non half hour metered ICPs.

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

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

Audit observation

The meter reading process was examined. Monthly reports for the audit period were reviewed.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

Monthly meter reading reports were provided for March 2022 to July 2022, and all ICPs supplied for more than four months had actual readings received in the previous four months.

As discussed in **section 6.9**, GLN0332 was missing from the meter reading frequency reports provided for March 2022 to July 2022 because of a bug within the report which was corrected during the audit.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

The meter reading process was examined. Monthly reports for the audit period were provided and reviewed to determine whether they met the requirements of clauses 8 and 9 of schedule 15.2.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

ICPs 1099566354CNB0F and 0007155140CN800 have Counties Power AMI meters, and data is collected by IntelliHUB. IntelliHUB's interrogation logs are compliant.

ICPs 0000294920TE968 and 1099566453CN9C7 have Counties Power non-AMI meters, photo readings are taken by Awhitu Windfarms staff. The email states the date the meter was read, who read the meter, the photo contains the meter and register identification. The title of the email identifies the customer, and it's obvious what the ICP is. The previous audit recommended that the ICP identifier is included in the title of the email, but this recommendation has not been adopted.

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR data is collected by EMS. The data collection requirements were reviewed as part of their agent audit.

Audit commentary

AWFL

Compliance with this clause has been demonstrated by EMS as part of their agent audit.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

11(2)(c) - the metering information, which represents the quantity of electricity conveyed at the point of connection, including the date and time stamp or index marker for each half hour period. This may be limited to the metering information accumulated since the last interrogation
11(2)(d) - the event log, which may be limited to the events information accumulated since the last interrogation
11(2)(e) - an interrogation log generated by the interrogation software to record details of all interrogations.

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

Audit observation

HHR data is collected by EMS. The interrogation data requirements were reviewed as part of their agent audit.

Audit commentary

AWFL

Compliance with this clause has been demonstrated by EMS as part of their own audit.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

- 11(3)(a)- the date of interrogation
- 11(3)(b)- the time of commencement of interrogation
- 11(3)(c)- the operator identification (if available)
- 11(3)(d)- the unique identifier of the meter or data storage device
- 11(3)(e)- the clock errors outside the range specified in Table 1 of clause 2
- 11(3)(f)- the method of interrogation
- 11(3)(g)- the identifier of the reading device used for interrogation (if applicable).

Audit observation

HHR data is collected by EMS. The data interrogation log requirements were reviewed as part of their agent audit.

Audit commentary

AWFL

Compliance with this clause has been demonstrated by EMS as part of their own audit.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

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

HHR data is collected by EMS. Trading period duration was reviewed as part of their agent audit.

Audit commentary

AWFL

Compliance with this clause has been demonstrated by EMS.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

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

Processes to archive and store raw meter data were reviewed. The oldest raw meter data available was viewed, to confirm it is retained. Audit trails were reviewed in **section 2.4**.

Audit commentary

AWFL

Compliance with this clause has been demonstrated by EMS as part of their audit.

MYST

JC Consulting provide historical data showing that all readings were available since the start of trading.

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

Awhitu Windfarms does not deal with any non-metering information.

Audit commentary

Awhitu Windfarms does not deal with any non-metering information.

Audit outcome

Compliant

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Processes for the correction of NHH meter readings were reviewed.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

NHH corrections are processed by JC Consulting as MYST's agent. There are validation processes in place to identify meter defects, bridged meters, incorrect multipliers and inactive ICPs with consumption.

Where errors are detected during read validation a check reading will be performed for manually read meters, or AMI readings for surrounding days will be checked. If an original meter reading cannot be validated it will be recorded as an unvalidated reading, and ignored by the switching, billing, and reconciliation processes.

All ICPs supplied were active for the portion of the audit period which they were supplied, and no bridged meters or defects were identified. No corrections were required during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

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

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

Audit observation

Processes for the correction of HHR meter readings were reviewed. Information on HHR corrections was requested from EMS.

Audit commentary

AWFL

HHR corrections are processed by EMS, and compliance was recorded in their agent audit. No HHR corrections were required during the audit period.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

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

I checked whether any metering installations required error or loss compensation.

Audit commentary

AWFL

Awhitu Windfarms supplies one ICP with metering category 5, and error or loss compensation is not required.

MYST

MYST supplies only category 1 and 2 ICPs, and error or loss compensation is not required.

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

AWFL

HHR corrections are conducted by EMS, their audit report confirmed that raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

MYST

NHH corrections are conducted by JC Consulting, and raw meter data is not overwritten as part of the correction process. Compliant audit trails are populated when data is corrected.

Raw meter data retention for MEPs was reviewed as part of their own audits.

Audit commentary

AWFL

HHR corrections are processed by EMS, and compliance was recorded in their agent audit. No corrections occurred during the audit period.

MYST

Raw NHH meter data is held by the MEPs and JC Consulting. Compliance was confirmed as part of the IntelliHUB audit. JC Consulting does not overwrite raw meter data.

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

AWFL

Compliance was assessed as part of EMS's agent audit report.

MYST

A sample of reads and volumes were traced from the source files to the RM Tool and submission information in **section 2.3**.

Provision and recording of switch event readings was checked for all switches during the audit period.

Correct identification of estimated reads, and review of the estimation process was completed in **sections 2.1, 8.1, 8.2 and 9.4**.

Audit commentary

AWFL

Compliance is recorded in EMS' agent audit report.

MYST

Estimates and permanent estimates are clearly identified in the RM Tool, and the reads traced from source files to the RM Tool and submission information were correctly recorded.

Reads provided through the switching process were correctly classified, and no corrections occurred during the audit period.

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

A sample of submission data was reviewed in **section 12**, to confirm that volume was based on readings as required.

Audit commentary

Review of submission summary sheets for MYST and submission data for AWFL confirmed that it is based on readings as required by this clause.

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

NHH data is collected by MEPS and Awhitu Windfarms, and HHR data is collected by EMS. A sample of submission data was reviewed in **sections 11** and **12**, to confirm that volume was based on readings as required.

Audit commentary

AWFL

EMS' processes were reviewed as part of their agent audit and found to be compliant.

MYST

Review of submission summary information confirmed that NHH data provided by IntelliHUB and by Awhitu Windfarms is not rounded or truncated prior to submission.

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

Processes for the estimation of HHR meter readings were reviewed. Information on HHR estimates was requested from EMS.

Audit commentary

AWFL

HHR estimates are conducted by EMS, and compliance was recorded in their agent audit. EMS confirmed that no estimates were created during the audit period.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

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

JC Consulting completes NHH validation processes as Awhitu Windfarms' agent. The JC Consulting RM Submission Process documentation was reviewed.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

IntelliHUB collects meter readings for ICPs 1099566354CNB0F and 0007155140CN800, and Awhitu Windfarms collects meter readings for ICPs 0000294920TE968 and 1099566453CN9C7 which have non-AMI meters. The readings are sent to JC Consulting and loaded into the RM Tool.

Import validation ensures that file content is valid (including dates and times) and that readings are recorded against the correct ICP, meter and register.

The RM tool's read validation process identifies excessive, negative, zero and inactive consumption.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

17(4)(f) - a review of 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

I reviewed the HHR and AMI data validation processes, including meter event logs and validation checks.

Audit commentary

AWFL

This function was examined as part of the EMS audit and found to be compliant. No meter events which could affect meter accuracy have occurred during the audit period.

MYST

All ICPs are settled as NHH and subject to the validation process discussed in **section 9.5**.

Import validation ensures that file content is valid (including dates and times) and that readings are recorded against the correct ICP, meter and register. The RM tool's read validation process identifies excessive, negative, zero and inactive consumption. IntelliHUB reviews meter events and any that could affect meter accuracy are sent to traders or their agents.

Compliance is recorded because no events requiring further action were identified during the audit period.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

Awhitu Windfarms is not responsible for compliance with this clause.

Audit commentary

Awhitu Windfarms is not responsible for compliance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.137

Code related audit information

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

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

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

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

Audit observation

Awhitu Windfarms is not responsible for compliance with this clause.

Audit commentary

Awhitu Windfarms is not responsible for compliance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.138

Code related audit information

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

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

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

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

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

Audit observation

Awhitu Windfarms is not responsible for compliance with this clause.

Audit commentary

Awhitu Windfarms is not responsible for compliance with this clause.

Audit outcome

Not applicable

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

Code reference

Clause 13.140

Code related audit information

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

Audit observation

Awhitu Windfarms is not responsible for compliance with this clause.

Audit commentary

Awhitu Windfarms is not responsible for compliance with this clause.

Audit outcome

Not applicable

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

No trading notifications were required during the audit period. AWFL has only used the HHR profile and MYST has only used the RPS profile. Trading notifications are not required.

Audit outcome

Compliant

11.2. Calculation of ICP days (Clause 15.6)

Code reference

Clause 15.6

Code related audit information

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

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

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

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

Audit observation

ICP days submissions were reviewed to determine compliance.

Audit commentary

AWFL

EMS calculates and submits ICP days for AWFL, and compliance is recorded in their agent audit report. I checked the HHR ICP days submissions for 13 months and revisions and confirmed that they were correct.

MYST

JC Consulting calculates and submits ICP days for MYST.

I checked the AV110 NHH ICP days reported for 93 submissions from June 2020 to July 2022 against the expected active ICP days at each NSP and confirmed that the submission information was correct.

Audit outcome

Compliant

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

Code reference

Clause 15.7

Code related audit information

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

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

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

Audit observation

AWFL

AWFL began submitting AV120 reports in May 2021, and I matched the AV120 submission totals to the expected values for May 2021 to May 2022.

GR130 reports for May 2021 to May 2022 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

MYST

I matched the AV120 submission totals to the expected values for July 2021 to July 2022.

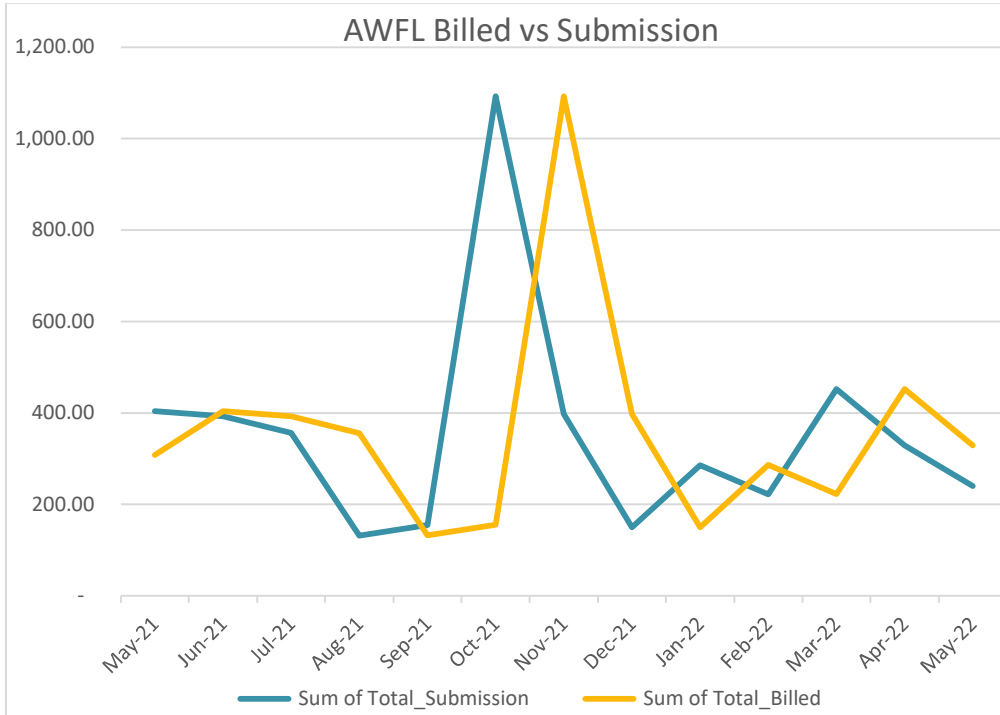
GR130 reports for June 2020 to May 2022 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Audit commentary

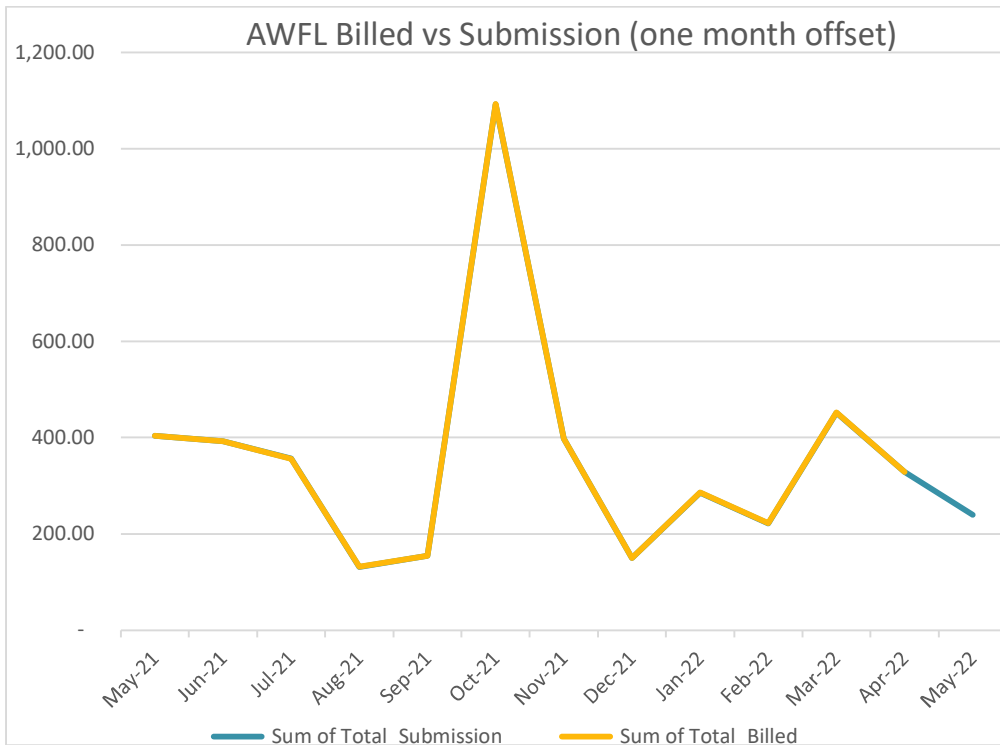
AWFL

AWFL commenced supplying ICP 1099578842CN302 on 23 January 2020 but did not begin submitting AV120 reports for the load until May 2021, after the missing AV120 submissions were recorded as non-compliance in the previous audit. The ICP is not billed to an external party, so the billed volume is recorded as the volume for the previous month. I verified this by checking the AV120 reports for May 2021 to May 2022 against expected values.

I also checked the difference between submission and electricity supplied information for May 2021 to May 2022 and the results are shown in the chart below.



Once the billing and submission period are aligned there is no difference between the billed and submitted data.

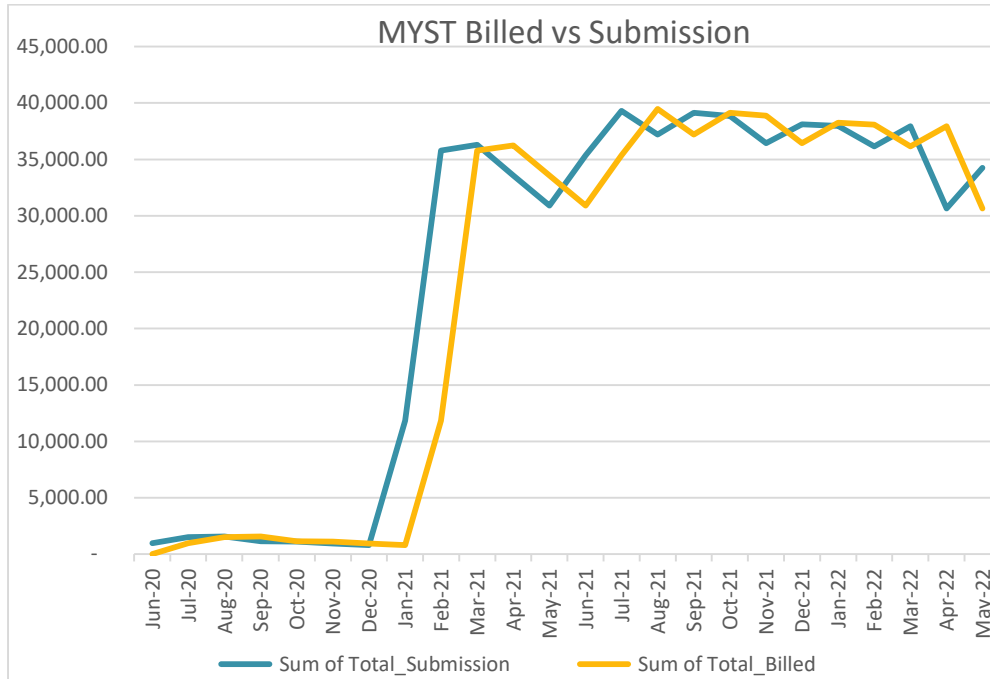


MYST

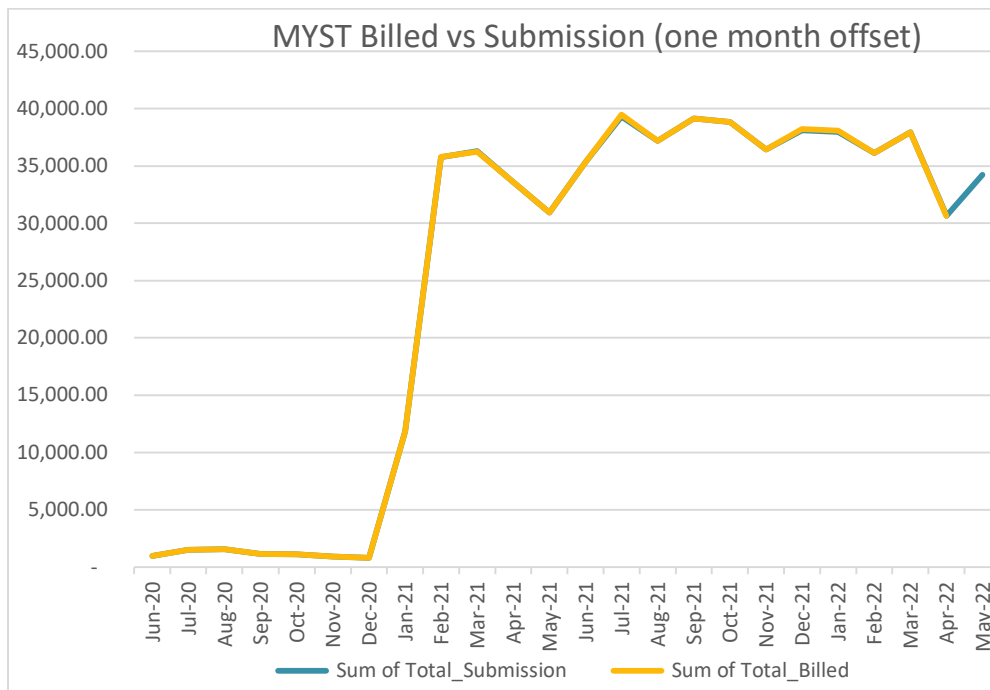
MYST has one ICP where an actual invoice is sent, the other ICPs have Awhitu Windfarms as the customer and the reconciliation participant so electricity is “supplied” but not invoiced, so the volume

for the previous month is used to determine the electricity supplied value. I matched the AV120 submission totals to the expected values for July 2021 to July 2022 and confirm compliance.

I also checked the difference between submission and electricity supplied information for June 2020 to May 2022 and the results are shown in the chart below.



Once the billing and submission period are aligned there is no difference between the billed and submitted data.



Audit outcome

Compliant

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

Code reference

Clause 15.8

Code related audit information

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

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

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

Audit observation

EMS creates HHR aggregates and volumes information, and compliance was assessed as part of their audit.

Audit commentary

AWFL

EMS' processes for provision of HHR aggregates information were assessed during their agent audit and are compliant.

Accuracy of the submission information was checked:

- I compared the HHR volumes and aggregates submissions for 19 months and revisions and found only small rounding differences of less than ± 0.4 kWh were present,
- I confirmed that the expected ICPs were included for the submissions reviewed, and
- I traced a sample of raw data collected for three days from the meter data through to the submissions and confirmed it was consistent.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

Audit outcome

Compliant

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 one of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

All HHR data is collected by EMS, and daylight savings adjustments were reviewed as part of their agent audit.

Audit commentary

AWFL

Daylight savings adjustments were reviewed as part of EMS's agent audit and found to be compliant. EMS uses the trading period run on technique.

MYST

MYST only supplies NHH settled ICPs, and this clause does not apply.

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

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late.

AWFL

HHR submissions are created by EMS, and their processes were reviewed as part of their agent audit. Submissions were checked in **section 11.4**.

MYST

JC Consulting prepares NHH submission information using the RM Tool.

Audit commentary

No alleged breaches for late provision of submission information occurred during the audit period.

AWFL

Submission of HHR information was reviewed as part of EMS' agent audit and found to be compliant.

MYST

NHH submissions are prepared and validated by JC Consulting. A sample of NHH submission data was reviewed and confirmed to be accurate.

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

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed in **section 2.1**.

Audit commentary

AWFL

Submission of HHR information was reviewed as part of EMS' agent audit and in **section 11.4** and found to be compliant.

MYST

NHH submissions are prepared and validated by JC Consulting. A sample of NHH submission data was reviewed and confirmed to be accurate. The read validation process is discussed in **sections 9.5** and **9.6**, and additional validation to identify missing readings, missing meter registers, missing seasonal adjusted shape values is conducted.

I checked the AV080 NHH volumes reported for 15 submissions from June 2021 to July 2022 against detailed ICP level submission information and confirmed that submission aggregation was correct.

Where corrections are required, revised data is provided through the wash up process. No corrections have been required during the audit period.

Audit outcome

Compliant

12.4. Grid owner volumes information (Clause 15.9)

Code reference

Clause 15.9

Code related audit information

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

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

Audit observation

Review of the NSP table confirmed that Awhitu Windfarms is not a grid owner.

Audit commentary

Awhitu Windfarms is not a grid owner.

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

The registry list and NSP table were reviewed.

Audit commentary

Awhitu Windfarms does not own any local or embedded networks and is not required to provide NSP submission information.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Awhitu Windfarms is not a grid connected generator.

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

Alleged breaches during the audit period were reviewed to determine whether any reconciliation submissions were late. Corrections were reviewed in **sections 8.1** and **8.2**.

Audit commentary

No alleged breaches were recorded for late submission data during the audit period.

AWFL

Submission of HHR information was reviewed as part of EMS' agent audit and in **section 11.4** and found to be compliant.

MYST

Review of submissions confirmed revisions were submitted as expected. Evidence was observed of revised consumption information where submissions were different.

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

AWFL

AWFL only supplies one HHR ICP and regular readings are received.

MYST

NHH volumes 14-month revisions were reviewed for June 2020 to June 2021 identify any forward estimate still existing.

Audit commentary

AWFL

AWFL only supplies one HHR ICP and regular readings are received.

MYST

Review of the 14-month revisions for June 2020 to June 2021 found that no forward estimate remained.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

- *half hour volume information for the total metered quantity of electricity for each ICP notified in accordance with clause 11.7(2) for which there is a category 3 or higher metering installation (clause 2(1)(a)) for each ICP about which information is provided under clause 11.7(2) for which there is a category 1 or category 2 metering installation (clause 2(1)(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

Aggregation and content of reconciliation submissions was reviewed.

Audit commentary

Compliance with this clause was assessed:

- one ICP has metering category 5 and is submitted as HHR for AWFL, all other ICPs have metering category 1 or 2 and are submitted as NHH for MYST,
- no unmetered load is present,
- no profiles requiring a certified control device are used,
- no loss or compensation arrangements are required, and
- aggregation of the AV080, AV090 and AV140 reports is compliant.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the techniques described in clauses 4 to 7 to create historical estimates and forward estimates.

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

I reviewed all AV080 submissions for the audit period, to confirm that historic estimates are included and identified. Permanence of meter readings is reviewed in **section 12.8**. The methodology to create forward estimates is reviewed in **section 12.12**.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

I reviewed AV080 submissions for June 2020 to July 2022 and confirm that forward and historic estimates are included and identified as such.

The quantity of forward estimates was very small, and I found no forward estimate remained after revision 1 for the periods reviewed.

Audit outcome

Compliant

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

Code reference

Clauses 4 and 5 Schedule 15.3

Code related audit information

The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing historical estimates of volume information for each ICP when the relevant seasonal adjustment shape is available, and the reconciliation participant is not using an approved profile in accordance with clause 4A.

If the Authority has approved a profile for the purpose of apportioning volume information (in kWh) to part or full consumption periods, a reconciliation participant may use the profile despite the relevant seasonal adjustment shape being available; and if it uses the profile, must otherwise prepare the historical estimate in accordance with the methodology in clause 4.

*If a seasonal adjustment shape is not available, and the **reconciliation participant** is not using an approved **profile** under clause 4A, 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

I re-calculated the historic estimate for all ICPs for the latest revisions for May 2021 to July 2022 based on the raw meter readings and latest seasonal adjusted shape values published at the time the submissions were generated. I compared the results to the detailed submission summary information provided by JC Consulting. I also checked the AV080 NHH volumes reported for 15 submissions from June 2021 to July 2022 against detailed ICP level submission information and confirmed that submission aggregation was correct.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

My recalculations of historic estimate matched the JC Consulting submission values to two decimal places for the latest revisions for May 2021 to July 2022. The latest seasonal adjusted shape values were correctly applied for each submission.

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

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

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

Audit observation

The process to create forward estimates was reviewed. Forward estimates were checked for accuracy by analysing the GR170 file for variances between revisions for all relevant months.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

The forward estimate process is based on historic consumption or the average daily consumption from the losing trader's CS file is used. As a last resort a forward default estimate can be used.

I reviewed AV080 submissions for June 2020 to July 2022 and confirm that forward and historic estimates are included and identified as such. The quantity of forward estimates was very small, and I found no forward estimate remained after revision 1 for the periods reviewed. The differences between revisions were very small (-0.47% to +0.68%), and none were more than 100,000 kWh.

Month	Revision 1	Revision 3	Revision 7	Revision 14	Balancing areas
Aug 2020	0.00%	0.00%	0.00%	0.00%	1
Sep 2020	0.00%	0.00%	0.00%	0.00%	1
Oct 2020	0.00%	0.68%	0.63%	0.63%	1
Nov 2020	-0.05%	0.04%	0.04%	0.04%	1
Dec 2020	0.00%	0.00%	0.00%	0.00%	1
Jan 2021	0.00%	0.00%	0.00%	0.00%	1
Feb 2021	0.10%	-0.26%	0.04%	0.03%	1

Month	Revision 1	Revision 3	Revision 7	Revision 14	Balancing areas
Mar 2021	0.13%	-0.17%	-0.17%	-0.16%	1
Apr 2021	0.00%	0.00%	0.00%	0.00%	1
May 2021	0.00%	0.00%	0.00%		1
Jun 2021	0.00%	0.00%	0.00%		1
Jul 2021	0.00%	0.41%	0.41%		1
Aug 2021	-0.25%	-0.26%	-0.26%		1
Sep 2021	0.00%	0.00%	0.00%		1
Oct 2021	0.00%	0.04%	0.04%		1
Nov 2021	0.20%	0.15%	0.14%		1
Dec 2021	-0.06%	0.28%			1
Jan 2022	-0.32%	-0.06%			1
Feb 2022	-0.27%	-0.47%			1
Mar 2022	0.22%	0.20%			1

Audit outcome

Compliant

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

Code reference

Clause 7 Schedule 15.3

Code related audit information

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

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

Audit observation

Registry information was checked for all ICPs supplied by AWFL and MYST during the audit period.

Audit commentary

There were no profile changes, and none are expected. JC Consulting has processes in place to manage meter changes and most profile changes would also have a meter change.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

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

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

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

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

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

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

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

Audit observation

Processes to ensure that information used to aggregate the reconciliation reports is consistent with the registry were reviewed in **section 2.1**.

Aggregation of NHH volumes is discussed in **section 12.3**, and aggregation of HHR volumes is discussed in **section 11.4**.

Audit commentary

Submission information is provided to the reconciliation manager in the appropriate format and is aggregated to the following level:

- NSP code,
- reconciliation type,
- profile,
- loss category code,
- flow direction,
- dedicated NSP, and
- trading period for half hour metered ICPs and consumption period or day for all other ICPs.

NHH volumes and HHR volumes aggregation was confirmed to be compliant.

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 two decimal places.

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

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

Audit observation

I reviewed the rounding of data on the AV080, AV090 and AV140 reports as part of the aggregation checks.

Audit commentary

Submissions are correctly rounded to no more than two decimal places.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

The timeliness of submissions of historic estimate was reviewed in **section 12.2**. I reviewed a sample of AV080 reports to determine whether historic estimate requirements were met.

Audit commentary

AWFL

AWFL only supplies one HHR ICP, and this clause does not apply.

MYST

The quantity of historical estimates is contained in the submission file and is not a separate report. The proportion of HE in the revision files was checked for a sample of months.

All months checked had 100% historic estimate by revision three.

Month	Historic estimate at r3	Historic estimate at 7	Historic estimate at 14
Jun 2020	-	100.00%	100.00%
Jul 2020	100.00%	100.00%	-
Aug 2020	-	100.00%	100.00%
Sep 2020	-	100.00%	100.00%
Oct 2020	100.00%	100.00%	100.00%
Nov 2020	100.00%	100.00%	100.00%
Dec 2020	100.00%	100.00%	100.00%
Jan 2021	100.00%	100.00%	100.00%
Feb 2021	100.00%	100.00%	100.00%
Mar 2021	100.00%	100.00%	100.00%
Apr 2021	100.00%	100.00%	100.00%
May 2021	100.00%	100.00%	100.00%
Jun 2021	100.00%	100.00%	100.00%
Jul 2021	100.00%	100.00%	-
Aug 2021	100.00%	100.00%	-
Sep 2021	100.00%	100.00%	-
Oct 2021	100.00%	100.00%	-

Month	Historic estimate at r3	Historic estimate at 7	Historic estimate at 14
Nov 2021	100.00%	100.00%	-
Dec 2021	100.00%	100.00%	-
Jan 2022	100.00%	100.00%	-
Feb 2022	100.00%	-	-
Mar 2022	100.00%	-	-
Apr 2022	100.00%	-	-
May 2022	100.00%	-	-

All months checked had at least 80% historic estimate for each NSP at revision three, at least 90% historic estimate for each NSP at revision seven, and 100% historic estimate at revision 14.

Month	Count of NSPs which had historic estimate >= 80% at r3 / total NSPs	Count of NSPs which had historic estimate >= 90% at r3 / total NSPs	Count of NSPs which had historic estimate = 100% at r14 / total NSPs
Jun 2020	1 / 1	1 / 1	
Jul 2020		1 / 1	1 / 1
Aug 2020	1 / 1	1 / 1	
Sep 2020	1 / 1	1 / 1	
Oct 2020	1 / 1	1 / 1	1 / 1
Nov 2020	1 / 1	1 / 1	1 / 1
Dec 2020	1 / 1	1 / 1	1 / 1
Jan 2021	1 / 1	1 / 1	1 / 1
Feb 2021	1 / 1	1 / 1	1 / 1
Mar 2021	1 / 1	1 / 1	1 / 1
Apr 2021	1 / 1	1 / 1	1 / 1
May 2021	1 / 1	1 / 1	1 / 1
Jun 2021	1 / 1	1 / 1	1 / 1
Jul 2021		1 / 1	1 / 1
Aug 2021		1 / 1	1 / 1
Sep 2021		1 / 1	1 / 1

Month	Count of NSPs which had historic estimate \geq 80% at r3 / total NSPs	Count of NSPs which had historic estimate \geq 90% at r3 / total NSPs	Count of NSPs which had historic estimate = 100% at r14 / total NSPs
Oct 2021		1 / 1	1 / 1
Nov 2021		1 / 1	1 / 1
Dec 2021		1 / 1	1 / 1
Jan 2022		1 / 1	1 / 1
Feb 2022			2 / 2
Mar 2022			3 / 3
Apr 2022			3 / 3
May 2022			3 / 3

Audit outcome

Compliant

CONCLUSION

Awhitu Windfarms has two participant codes, AWFL and MYST.

AWFL is used for the HHR generation at ICP 1099578842CN302. EMS manages registry data and completes settlement processes as Awhitu Windfarms' agent. No registry activity occurred during the audit period.

MYST has supplied four NHH settled meter category 1 and 2 ICPs during the audit period. NHH submission, registry information management and switching is completed by JC Consulting. Two ICPs switched in and one ICP switched out during the audit period.

The audit found three minor non-compliances with very low impact:

- Awhitu Windfarms' MYST code supplies one external customer and there is no website which provides information on Utilities Disputes, however information on Utilities Disputes is clearly displayed on the customer's monthly invoice, which ensures that the customer is aware that the Utilities Disputes is available to them,
- one ICP has an incorrect ANZSIC code recorded on the registry, and
- the meter reading frequency reports provided to the Authority for MYST omitted NSP GLN0332 for some months, and the issue was resolved as soon as it was discovered during the audit.

The audit risk rating is three indicating that the next audit should be due in 24 months on 23 November 2024. I agree with this recommendation.

PARTICIPANT RESPONSE