

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

CROSSHAVEN CONSULTING LTD

For

SOLAR ENERGY SERVICES LIMITED
NZBN: 9429050366361

Prepared by: Bernie Cross

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Date audit report completed: 30 July 2024

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EXECUTIVE SUMMARY

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of **Solar Energy Services Ltd Limited (Solar Energy Services Ltd)**, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.1.

Solar Energy Services Ltd is a reconciliation participant and is therefore required to be a certified reconciliation participant in accordance with clause 15.38 of part 15.

Solar Energy Services Ltd has one active ICP which is settled as HHR with distributed generation. Solar Energy Services intends to grow their customer base over the short and medium term.

There was no registry or switching interactions during the audit period

I confirmed the following as part of Solar Energy Services audit:

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

No non-compliances were identified during this audit.

Two recommendations were made regarding:

- Implementing a pre submission review of reconciliation files produced by an agent prior to instructing these files to be upload into the reconciliation manager portal.
- Reviewing the process to produce electricity supplied information as an output of a billing or financial process.

The audit risk rating is zero, indicating that the next audit be due in 36 months. I have considered this in conjunction with Solar Energy Services Ltd comments and I recommend the next audit is conducted in 36 months.

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
Future Risk Rating							

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

ISSUES

Subject	Section	Description	Issue

RECOMMENDATIONS

Subject	Section	Description	Recommendation
Relevant information	2.1	Take all practicable steps to ensure that information that the participant is required to provide is accurate and complete	Solar Energy Services to investigate implementing pre submission checks of files prior to instructing their agent to upload these files to the reconciliation managers portal
Electricity supplied information provision to the reconciliation manager.	11.3	Review the electricity supplied process to source the data from billing or financial records.	It Is recommended that Solar Energy Services reviews their electricity supplied process to source the data as an output from their billing or financial system instead of a billing input data file provided by the reconciliation process agent.

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.

Solar Energy Services Ltd provided a copy of their organisation structure for the relevant parts of their business.

1.3. Persons involved in this audit.

Auditor:

Bernie Cross

Crosshaven Consulting Limited

Electricity Authority Approved Auditor

Solar Energy Services Ltd personnel assisting in this audit were:

Name	Title
Wilfred Walsh	Business Development Manager
John Candy	John Candy Consulting

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

This area was examined by interview to confirm Solar Energy Services Ltd understands their obligations.

Audit commentary

Solar Energy Services Ltd receives HHR data from MEPs, who are subject to their own audit regime and are not considered agents.

Solar Energy Services Ltd engages John Candy Consulting for the performance of registry, switching and submission activities. All of the relevant tasks conducted by John Candy Consulting were audited as part of this audit.

1.5. Hardware and Software

Solar Energy Services Ltd uses John Candy Consulting to undertake all reconciliation participant takes with the exception of gathering and storing raw meter data which is undertaken by the AMI MEP.

John Candy Consulting

The Access Database (RM Tool) is provided and run by John Candy Consulting, along with Windows 10 and Microsoft Excel. Online backups are made to OneDrive. Copies of files are also retained in dropbox which is shared with Solar Energy Services Ltd.

1.6. Breaches or Breach Allegations

There have been no alleged breaches relevant to the scope of this audit during the audit period.

1.7. ICP Data

Active ICPs are summarised by meter category in the table below.

Metering Category	2024	2023
1	1	1
2	-	-
3	-	-
4	-	-
5	-	-
9	-	-
Blank	-	-

The ICPs on the list file are summarised on the table below.

All ICPs on the list file are summarised on the table below.

Status	Number of ICPs 2024	Number of ICPs 2023
Active (2,0)	1	1
Inactive – new connection in progress (1,12)	-	-
Inactive – electrically disconnected vacant property (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)	-	-

1.8. Authorisation Received

Solar Energy Services Ltd provided authorisation via email.

1.9. Scope of Audit

This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Solar Energy Services Ltd, 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 V7.1.

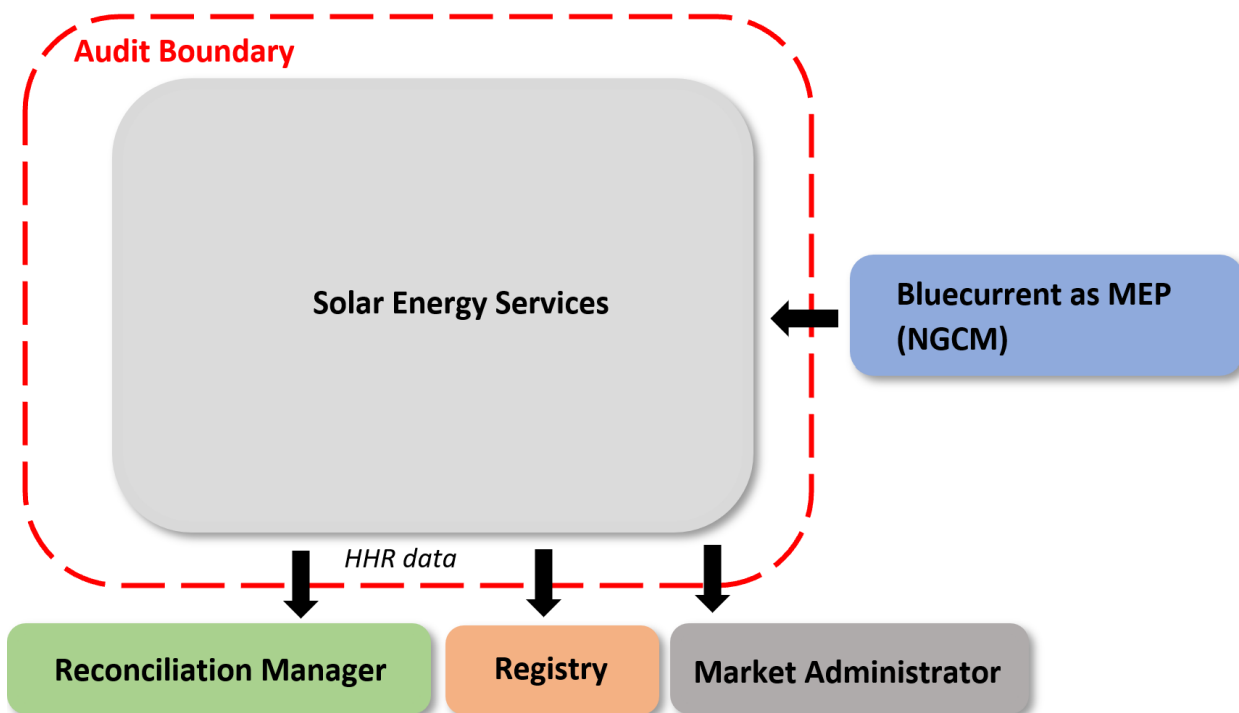
The audit analysis was conducted on:

- a registry list snapshot report for 19 June 2024,
- an event detail report for 1 July 2023 to 19 June 2024,
- a registry list history and meter event detail report for 1 July 2023 to 19 June 2024, and
- an audit compliance report for 1 July 2023 to 19 June 2024.

The functions performed by John Candy Consulting were audited at the same time as those conducted by Solar Energy Services Ltd, and the findings are documented in this report.

The audit was audited remotely via Microsoft Teams 24 July 2024.

The scope of the audit is shown in the diagram below, with the Solar Energy Services Ltd audit boundary shown for clarity.



The table below shows the tasks under clause 15.38 of part 15 for which Solar Energy Services Ltd requires certification. AMS provides AMI data as MEPs, not as agents.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing AMI data
(a) - Maintaining registry information and performing customer and embedded generator switching	John Candy Consulting	
(b) – Gathering and storing raw meter data		Bluecurrent – HHR (AMI)
(c)(iii) - Creation and management of NHH and HHR volume information	John Candy Consulting	
(d) – Calculation of ICP days	John Candy Consulting	
(da) - delivery of electricity supplied information under clause 15.7	John Candy Consulting	
(db) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8	John Candy Consulting	
(e) – Provision of submission information for reconciliation	John Candy Consulting	

1.10. Summary of previous audit

Solar Energy Services Ltd provided a copy of the desktop audit report conducted in July 2023 by Bernie Cross of Crosshaven Consulting. The summary tables below show the status of the non-compliances raised in the previous audit. Further comment is made in the relevant sections of this report.

Subject	Section	Clause	Non-compliance	Status
Provision of information on dispute resolution scheme	2.19	11.30A	Information on Utilities Disputes was temporarily missing from Solar Energy Services Ltd website.	Cleared
Provision of information on electricity plan comparison site	2.20	11.30B	Information on Powerswitch was temporarily missing from Solar Energy Services Ltd website.	Cleared

2. OPERATIONAL INFRASTRUCTURE

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

Code reference

Clause 10.6, 11.2, 15.2

Code related audit information

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

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

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

Audit observation

The process to find and correct incorrect information was examined. The registry validation process was examined in detail in relation to the achievement of this requirement. The registry list and AC020 reports were examined to determine compliance.

Audit commentary

This clause requires that Solar Energy Services Ltd must check the list file against their own records and correct records as soon as practicable.

Registry validations are completed weekly by Solar Energy Services Ltd's agent John Candy Consulting, and includes checks of:

- switching activity and current agreed switch readings,
- status changes, pricing data changes, metering data changes, network data changes, and
- initial electrical connection date discrepancies.

No exceptions were identified during the audit period.

I reviewed correction processes where volumes were incorrect, but the readings recorded matched the meter register (if metered) including multiplier corrections, defective and faulty meters, inactive consumption, and unmetered load corrections.

Defective meters	No defective meters were identified during the audit period.
Multiplier corrections	No ICP's with multiplier corrections were identified during the audit period. All ICPs are metering installation category one.
Bridged meter corrections	No bridged meters were identified during the audit period.
Inactive ICPs with consumption	No inactive ICP's were identified during the audit period.

Unmetered load corrections	No ICP's with unmetered load were identified during the audit period.
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The end to end processes for producing reconciliation information for ICPs traded by Solar Energy Services is performed by their agent John Candy Consulting. The processes performed by agent John Candy Consulting were reviewed and were confirmed as being robust. The submission files produced by John Candy Consulting is provided to Solar Energy Services once they have been uploaded to the reconciliation managers portal.

Clause 15.2 of Part 15 requires a participant to take all practicable steps to ensure the completeness and accuracy of information provided. Where an agent is used by a participant in the producing information there is a risk that errors can occur within the interface between participant and agent

Where a participant does not include a process to actively monitor the performance or outputs from their agents processes with a participant's own information and set ups then the end to end process controls are not considered strong. It is recommended that Solar Energy Services investigates implementing pre submission review of files submission files prior to instructing their agent to upload these files to the reconciliation managers portal.

Description	Recommendation	Audited party comment	Remedial action
Take all practicable steps to ensure that information that the participant is required to provide is accurate and complete	Solar Energy Services to investigate implementing pre submission checks of files prior to instructing their agent to upload these files to the reconciliation managers portal	We will endeavour to implement this recommendation.	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 several 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

AMI data is provided by the AMI MEP via SFTP.

To confirm the process volumes for one HHR ICPs supplied were traced from the source files for September 2023 and April 2024 to the HHR aggregated submission to confirm the process.

Audit commentary

Read files are sent directly to John Candy Consulting by the MEPs and agents. Data transmissions are via sFTP, which ensures the security and integrity of the data. Switch event readings are obtained directly from the registry by John Candy Consulting.

If Solar Energy Services Ltd finds a reading is incorrect through their validation process, John Candy Consulting will be advised by email.

The raw data received from the MEP was compared to the HHR aggregates file for all ICPs in the September 2023 and April 2024 submissions; for both consumption periods the volumes provided matched exactly to the MEP data, and compensation factors were correctly applied.

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

A complete audit trail was checked for all data gathering, validation and processing functions. I viewed audit trails in the RM tool.

Audit commentary

Audit trails were reviewed and include the activity identifier, date and time, and an operator identifier.

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

I reviewed Solar Energy Services Ltd's current customer terms and conditions.

Audit commentary

Solar Energy Services Ltd currently has one residential ICP and has published standard terms and conditions of their website.

Solar Energy Services Ltd contract with their customers includes consent to access for authorised parties for the duration of the contract. Solar Energy Services Ltd confirmed that they will be able to arrange access for other parties when requested.

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

I reviewed Solar Energy Services Ltd's current customer terms and conditions and discussed compliance with these clauses.

Audit commentary

Solar Energy Services Ltd's terms and conditions include consent to access for authorised parties for the duration of the contract. Solar Energy Services Ltd confirmed that they have been able to arrange access for other parties when requested.

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

The physical meter location point is not specifically mentioned in the terms and conditions, but the existing practices in the electrical industry achieve compliance.

A review of a registry list confirmed that Solar Energy Services Ltd has not supplied any ICPs with metering category 3 or above during the audit period.

Audit commentary

There were no ICPs where loss compensation occurs.

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 Contract and Commercial Law Act 2017, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

I reviewed Solar Energy Services Ltd's current customer terms and conditions.

Audit commentary

Solar Energy Services Ltd's terms and conditions contain the appropriate clauses to achieve compliance with 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

The new connection process was examined in detail to evaluate the strength of controls.

The event detail report for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

Solar Energy Services Ltd did not complete any new connections during the audit period. The AC020 report did not identify any data discrepancies relating to new connection information, or any active ICPs with metering category 9, null, or zero.

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

The event detail report for the audit period was reviewed to identify all new connections and confirm process controls and compliance.

Audit commentary

Solar Energy Services Ltd did not conduct or authorise any temporary electrical connection.

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

New connection, reconnection and meter bridging processes were discussed. The registry list, event detail report and audit compliance report for the audit period were examined to determine compliance.

Audit commentary

Metering information for active ICPs

The AC020 report did not identify any active ICPs with metering category 9, null, or zero.

New connections

Solar Energy Services Ltd did not complete any new connections during the audit period.

Reconnections

Solar Energy Services Ltd did not complete any reconnections during the audit period.

Bridged meters

Solar Energy Services Ltd did not perform any bridging of meters during the audit period.

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

The process to ensure an arrangement is in place before trading commences on a network was examined, along with the application process.

The registry list for 1 July 2023 to 19 June 2024 was reviewed to identify all networks Solar Energy Services Ltd has traded on during the audit period.

Audit commentary

Solar Energy Services Ltd has arrangements in place for line function services where they currently trade. MEP arrangements are in place with the relevant MEP.

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 process to ensure an arrangement is in place with the metering equipment provider before an ICP can be created or switched in was checked.

The registry list for 1 July 2023 to 19 June 2024 was reviewed to identify the MEPs for Solar Energy Services Ltd ICPs during the audit period.

Audit commentary

Solar Energy Services Ltd demonstrated that arrangements are in place with all relevant MEPs.

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

The process for reconnecting ICPs in the process of switching in was examined, including review of reports used in the process.

Traders are only able to update ICP status for event dates where they are responsible for the ICP on the registry.

Audit commentary

If any ICPs reconnected as part of a switch in are then withdrawn the gaining trader is expected to disconnect using the same methodology as the losing trader used.

Solar Energy Services Ltd's process is to re-disconnect any switches that were reconnected as part of the switch in process but subsequently withdrawn.

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

The disconnection process was examined. Traders are only able to update ICP status for event dates where they are responsible for the ICP on the registry.

Audit commentary

Solar Energy Services Ltd do not disconnect ICPs unless they are the trader.

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

Policies and processes for removal and breakage of seals were reviewed.

Solar Energy Services Ltd confirmed that no disconnections, reconnections, additions of export metering, or bridged meters occurred during the audit period.

Audit commentary

Solar Energy Services Ltd confirmed that no disconnections, reconnections, additions of export metering, or bridged meters occurred during the audit period.

Solar Energy Services Ltd process around the breaking of seals is to engage MEP's who in turn engage a test house to carry out such activities and do not intend to undertake this work with any other contractors.

MEPs are required to ensure that only qualified personnel perform work and manage and trace seals. The MEPs do not usually provide details of seals in their job completion paperwork.

Solar Energy Services Ltd receives work completion paperwork from the MEPs and uses this information to confirm the correct ICP attributes including status and profile and update their systems and the registry accordingly.

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

The process for bridging meters was discussed.

Audit commentary

Solar Energy Services Ltd did not perform any bridging of meters during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 11.30

Code related audit information

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

Audit observation

The process to ensure that the ICP identifier is printed on every invoice or document relating to the sale of electricity was discussed, and an invoice was reviewed.

Audit commentary

ICP identifiers are included on invoices and in all relevant correspondence.

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

The process to ensure that information on Utilities Disputes is provided to customers was checked, and the website, terms and conditions, invoices and communications were reviewed.

Audit commentary

Clear and prominent information on Utilities Disputes is provided:

- on Solar Energy Services Ltd's website,
- on customer invoices.

Solar Energy Services Ltd has yet to open their products to the wider market. Solar Energy Services Ltd is aware of the requirement to ensure all outbound communications and responses to queries from customers requires clear and prominent information about Utilities Disputes to be included in these communications and exchanges once these products are offered to the market.

Audit outcome

Compliant

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

The process to ensure that information on Powerswitch is provided to customers was checked, and the website, terms and conditions, invoices and communications were reviewed.

Audit commentary

Clear and prominent information on Powerswitch is provided:

- on invoices,
- on Solar Energy Services Ltd's website.

Solar Energy Services Ltd has yet to open their products to the wider market. Solar Energy Services Ltd is aware of the requirement to ensure all outbound communications and responses to queries from customers requires clear and prominent information about Powerswitch to be included in these communications and exchanges once these products are offered to the market.

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

The new connection process was discussed. The registry list, event detail report and audit compliance report for the audit period were examined to determine whether any new connections were completed during the audit period.

Audit commentary

ICPs must be connected before they will be accepted by Solar Energy Services Ltd. Review of the registry reports confirmed that Solar Energy Services Ltd has not completed any new connections during the audit period.

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

The new connection, MEP nomination, and switching processes were examined in detail.

The event detail report for 1 July 2023 to 19 June 2024 was analysed in relation to updating of the registry. This clause links directly to **sections 3.3** and **3.5** below, where findings on the timeliness of updates are recorded.

Audit commentary

Solar Energy Services Ltd's processes are designed to ensure that trader information is populated as required by this clause. No late updates were identified during the audit period.

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

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9**. In this section, the event detail and audit compliance reports for 1 July 2023 to 19 June 2024 was analysed determine the overall performance for that period.

A sample of updates were reviewed to determine if any were delayed, including:

- any late active updates,
- any late inactive updates; and
- any late trader updates.

Audit commentary

The event detail and audit compliance reports were examined to confirm whether the registry is notified within five business days when information referred to in clause 9 of schedule 11.1 changes.

Event	Year	Total ICPs	ICPs Notified Within 5 Days	ICPs Notified Greater Than 5 Days	Average Notification Days	Percentage Compliant
Status updates						
Change to active (2,0)	2023	-	-	-	-	100%
	2024	-	-	-	-	100%
Change to electrically disconnected	2023	-	-	-	-	100%
	2024	-	-	-	-	100%
Trader updates	2023	1	1	-	1.5	100%
	2024	-	-	-	-	100%

Status updates

There were no late status updates during the audit period.

Trader updates

Late trader updates include MEP nominations and profile changes. I checked for any trader updates and found that no trader updates were undertaken during the audit period.

Audit outcome

Compliant

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

- *another trader is recorded in the registry as accepting responsibility for the ICP (clause 11.18(2)(a)); or*
- *the ICP is decommissioned in accordance with clause 20 of Schedule 11.1 (clause 11.18(2)(b)).*
- *if an ICP is to be decommissioned, the trader who is responsible for the ICP must (clause 11.18(3)):*
 - 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

Retailers Responsibility to Nominate and Record MEP in the Registry

The audit compliance report, registry list as of 19 June 2024 and event detail report for 1 July 2023 to 19 June 2024 were examined to identify:

- any active ICPs that do not have an MEP recorded; and
- any MEP nomination rejections.

ICP Decommissioning

The process for the decommissioning of ICPs was examined.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

All active ICPs have a valid MEP recorded.

Solar Energy Services Ltd did not perform any MEP nominations during the audit period.

Solar Energy Services Ltd is aware of their responsibility to nominate the MEP based on notification of meter changes by relevant MEPs where a change of MEP is to occur.

ICP Decommissioning

Review of the event detail report confirmed that no ICPs were decommissioned during the audit period. Solar Energy Services Ltd's is aware of their responsibility to notify the MEP where an ICP is decommissioned, and to obtain a final reading.

Solar Energy Services Ltd's expects that final interrogations will occur for decommissioned ICPs because data will be provided daily up to the point the meter is de-energised as part of the permanent disconnection prior to decommissioning.

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

The audit compliance report for the period 1 July 2023 to 19 June 2024 was examined to identify all examples of missing registry data and the timeliness of registry updates.

Audit commentary

The audit compliance report did not identify any missing data. Solar Energy Services Ltd does not intend to handle new connections, and ICPs must be connected before they will be accepted by Solar Energy Services Ltd. No late updates or discrepancies relating to new connections were identified on the registry list, event detail report or audit compliance report, and the AC020 report did not record any late ANZSIC code updates for switched in or newly connected ICPs.

Audit outcome

Compliant

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

Code reference

Clause 9 (1)(k) of Schedule 11.1

Code related audit information

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

Audit observation

The process to capture and manage ANZSIC codes was examined. The audit compliance report and list file for the period 1 July 2023 to 19 June 2024 were reviewed to check ANZSIC codes.

ANZSIC codes were checked for the ICP to determine compliance.

Audit commentary

ANZSIC codes are set based on information provided on the customer application, and appropriate processes are in place to ensure that ANZSIC codes are recorded correctly.

Analysis of the registry list confirmed that no T99 series codes were present.

The accuracy of the ANZSIC code for the one ICP supplied by Solar Energy Services Ltd was checked using google streetview and it was confirmed as correct.

Audit outcome

Compliant

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

Code reference

Clause 9(1)(f) of Schedule 11.1

Code related audit information

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

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

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

Audit observation

The process to identify and monitor unmetered load was discussed. The registry list for the period 1 July 2023 to 19 June 2024 was reviewed to identify any ICPs with unmetered load.

Audit commentary

Solar Energy Services Ltd only accepts applications from customers who do not have unmetered load connected.

Review of the registry list and audit compliance reports confirmed that no unmetered load is recorded by the distributor or trader for any Solar Energy Services Ltd ICP. All active ICPs are metered with an MEP recorded and at least one meter channel.

Additions or changes to unmetered load details will be identified as part of the registry validation process.

If unmetered load is found, Solar Energy Services Ltd would relinquish responsibility for shared unmetered load if allowed under clause 11.14, or would arrange for the ICP to switch out.

Audit outcome

Compliant

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

Code reference

Clause 17 Schedule 11.1

Code related audit information

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

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

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

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

Audit observation

As discussed in **sections 2.9** and **3.5** Solar Energy Services Ltd does not complete new connections. Review of the event detail report and AC020 report confirmed this.

The reconnection process was examined using the AC020 and event detail report for the period 1 July 2023 to 19 June 2024 was analysed, and the findings on the timeliness of registry updates are recorded **section 3.3**.

Audit commentary

Status updates

There were no late status updates to active during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 19 Schedule 11.1

Code related audit information

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

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

Audit observation

The disconnection process was examined using the AC020 and event detail reports. The timeliness of data for disconnections is assessed in **section 3.3**, and a sample of eight updates were checked for accuracy.

Solar Energy Services Ltd does not complete new connections. Review of the registry list confirmed that no ICPs are at “new”, “ready”, or “inactive new connection in progress” status.

Audit commentary

Solar Energy Services Ltd intends to conduct disconnections remotely via the AMI meter and will update the registry once confirmation of the disconnection is provided by the MEP.

Solar Energy Services Ltd did not disconnect any ICPS during the audit period.

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, and I checked the process to manage these requests.

Audit commentary

Solar Energy Services Ltd has not had any queries in relation to “new” or “ready” ICPs. I checked the registry list file which confirmed there are no ICPs at new or ready where Solar Energy Services Ltd is the proposed trader.

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 2 business days after the arrangement comes into effect and include in its advice to the registry manager that the switch type is TR and 1 or more profile codes associated with that ICP.

Audit observation

The switch gain process was examined to determine when Solar Energy Services Ltd deem all conditions to be met.

I checked for any backdated NT files to confirm they were sent within two business days of customer contact.

Audit commentary

Solar Energy Services Ltd's 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 NT files were submitted during the audit period.

Audit outcome

Compliant

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

- *providing a request for withdrawal of the switch in accordance with clause 17 (clause 3(c) of Schedule 11.3).*

When establishing an event date for clause 4, the losing trader 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

An event detail report for the period 1 July 2023 to 19 June 2024 was reviewed to:

- identify any AN files issued by Solar Energy Services Ltd during the period; and
- assess compliance with the setting of event dates requirement.

All AN files for each response code were reviewed to determine whether the response codes had been correctly applied.

The Authority provided a memo to participants on 5 August 2016 clarifying the correct use of response codes. The memo contained the following clarification regarding the use of the AA code:

AA response code can only be used when no other code applies

The explanation of use for the response code 'AA' is: *Switch is accepted; there are no relevant issues.* Within the context of the switch response codes, 'no relevant issues' means that none of the other response codes applies.

If another switch response code would be valid then the losing trader cannot use the response code 'AA'.

The switch breach report was examined for the audit period.

Audit commentary

The event detail report confirmed that no AN or CS files for transfer switches were issued during the audit period.

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

The process to manage the sending of the CS file within five business days of the event date was examined. The switch breach history report was reviewed to identify late CS files.

An event detail report for the period 1 July 2023 to 19 June 2024 was reviewed, to identify any CS files issued by Solar Energy Services Ltd. No CS files were issued by Solar Energy Services Ltd during the audit period.

Audit commentary

The event detail report confirmed that no CS files were sent during the audit period.

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

The process for the management of read change requests was examined. The event detail report was analysed to identify all read change requests and acknowledgements during the audit period.

CS files were reviewed for estimated readings provided by other traders where no RR was issued.

The switch breach history report was reviewed to identify late RR and AC files.

Audit commentary

RR

No RR files were issued for transfer switches, and the switch breach history report did not record any late RR files.

AC

The event detail report confirmed that no AC files were sent during the audit period.

CS files with estimated readings where no RR is issued.

The event detail report confirmed that no CS files were sent during the audit period.

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

The event detail report for the period 1 July 2023 to 19 June 2024 was reviewed to identify any read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

Audit commentary

Solar Energy Services Ltd did not issue any RR requests under clause 6(2) and (3) of Schedule 11.3, or any AC files for transfer switches.

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 confirmed with Solar Energy Services Ltd whether any disputes have needed to be resolved in accordance with this clause.

Audit commentary

Solar Energy Services Ltd confirmed that no disputes have needed to be resolved in accordance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 9 Schedule 11.3

Code related audit information

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

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

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

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

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

Audit observation

The switch gain process was examined to determine when Solar Energy Services Ltd deem all conditions to be met.

All backdated switch moves were checked to confirm that they were notified to the registry within two business days, and that the correct switch type was selected.

Audit commentary

Solar Energy Services Ltd's 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 submitted 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

An event detail report for the period 1 July 2023 to 19 June 2024 was reviewed to:

- identify AN files issued by Solar Energy Services Ltd during the period; and
- assess compliance with the setting of event dates requirement.

The switch breach report was examined for the audit period.

Audit commentary

No AN or CS files were issued for switch moves during the audit period.

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

An event detail report for the period 1 July 2023 to 19 June 2024 was reviewed to identify any AN files issued by Solar Energy Services Ltd during the period.

Audit commentary

No AN files were issued for switch moves during the audit period.

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

The process to manage the sending of the CS file within five business days of the event date was examined. The switch breach history report was reviewed to identify late CS files.

An event detail report for the period 1 July 2023 to 19 June 2024 was reviewed, to identify any CS files issued by Solar Energy Services Ltd.

No CS files were issued by Solar Energy Services Ltd during the audit period.

Audit commentary

The event detail report confirmed that no CS files were sent during the audit period.

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 disputes procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*

- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader. (clause 12(3)(b)).*

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

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

Audit observation

The process for the management of read change requests was examined.

The event detail report for the period 1 July 2023 to 19 June 2024 was reviewed to identify any read change requests and acknowledgements during the audit period.

CS files were reviewed for estimated readings provided by other traders where no RR was issued.

The switch breach history report was reviewed to identify late RR and AC files.

Audit commentary

RR

No RR files were issued for switch moves, and the switch breach history report did not record any late RR files.

AC

The event detail report confirmed that no AC files were issued for switch moves during the audit period.

CS files with estimated readings where no RR is issued.

The event detail report confirmed that no CS files were sent during the audit period.

Audit outcome

Non-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

No HH switches occurred during the audit period.

Audit commentary

No HH switches occurred 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 3 business days after the losing trader is informed about the switch by the registry manager, the losing trader must:

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

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

Audit observation

No HH switches occurred during the audit period.

Audit commentary

No HH switches occurred during the audit period.

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

No HH switches occurred during the audit period.

Audit commentary

No HH switches occurred 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)); and*
 - o *the withdrawal advisory code published by the Authority. (clause 18(c)(ii))*
- *within 5 business days after receiving notice from the registry manager of a switch, the trader receiving the withdrawal must advise the registry manager that the switch withdrawal request is accepted or rejected. A switch withdrawal request must not become effective until accepted by the trader who received the withdrawal. (clause 18(d))*
- *on receipt of a rejection notice from the registry manager, in accordance with clause 18(d), a trader may re-submit the switch withdrawal request for an ICP in accordance with clause 18(c).*

All switch withdrawal requests must be resolved within 10 business days after the date of the initial switch withdrawal request. (clause 18(e))

- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within 2 business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16. (clause 18(f))*

Audit observation

The switch withdrawal process was examined.

The event detail report for the period 1 July 2023 to 19 June 2024 was reviewed to:

- identify any switch withdrawal requests (NWs) issued by Solar Energy Services Ltd; and check the content of a sample of two withdrawals per withdrawal code,
- identify any switch withdrawal acknowledgements (AWs) issued by Solar Energy Services Ltd; and check a sample of AW rejections to confirm whether they were validly rejected; and
- confirm timeliness of withdrawal requests, as this is not currently being identified on the switch breach report.

The switch breach report was checked for any late NW and AW files.

Audit commentary

NW

The event detail report confirmed that no NW files were sent during the audit period.

AW

The event detail report confirmed that no AW files were sent 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

All meter readings used in the switching process are validated meter readings or permanent estimates.

There were no examples of meter reading errors.

Solar Energy Services Ltd's 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

Win-back processes were discussed. The event detail report was analysed to identify all withdrawn switches with a CX code applied within 180 days of switch completion.

Audit commentary

Solar Energy Services Ltd does not conduct "win-back" activity.

No "CX" coded switch withdrawal requests were generated during the audit period.

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

The process to identify and monitor unmetered load was discussed. The registry list for the period 1 July 2023 to 19 June 2024 was reviewed to identify all ICPs with shared unmetered load during the period.

Audit commentary

Solar Energy Services Ltd does not supply any ICPs with shared 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

The process to identify and monitor unmetered load was discussed. The registry list for the period 1 July 2023 to 19 June 2024 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

Solar Energy Services Ltd does not currently supply any ICPs with unmetered load over 3,000 kWh per annum.

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

The process to identify and monitor unmetered load was discussed. The registry list for the period 1 July 2023 to 19 June 2024 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

Solar Energy Services Ltd does not currently supply any ICPs with unmetered load over 3,000 kWh per annum.

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

The process to identify and monitor unmetered load was discussed. The registry list for the period 1 July 2023 to 19 June 2024 was reviewed to identify all ICPs with unmetered load during the period.

Audit commentary

Solar Energy Services Ltd does not currently supply any ICPs with distributed 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 1 or more metering installations*
- *all electricity conveyed is quantified in accordance with the Code*
- *it does not use subtraction to determine submission information for the purposes of Part 15.*

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

Audit observation

Processes for distributed generation were reviewed. The audit compliance report for the period 1 July 2023 to 19 June 2024 was reviewed to confirm whether Solar Energy Services Ltd had supplied any ICPs with generation during the audit period and whether there were any registry discrepancies.

Audit commentary

Metering installations installed.

All active ICPs have an MEP, and at least one meter channel. No submission information is determined using subtraction.

Distributed Generation

Analysis of the registry list found that Solar Energy Services Ltd supplies one ICP with generation entered by the distributor, all of which have import/export metering installed.

Submission data was checked to ensure generation kWh were submitted. Compliance is confirmed.

Bridged meters

There were no bridged meters during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

- *provide to the grid owner a copy of the metering installation design (before ordering the equipment)*
- *provide at least 3 months for the grid owner to review and comment on the design*
- *respond within 3 business days of receipt to any request from the grid owner for additional details or changes to the design*
- *ensure any reasonable changes from the grid owner are carried out.*

The participant responsible for the metering installation must:

- *advise the reconciliation manager of the certification expiry date not later than 10 business days after certification of the metering installation*
- *become the MEP or contract with a person to be the MEP*
- *advise the reconciliation manager of the MEP identifier no later than 20 days after entering into a contract or assuming responsibility to be the MEP.*

Audit observation

The NSP table was reviewed to confirm whether Solar Energy Services Ltd is responsible for any GIPs.

Audit commentary

Review of the NSP table confirmed that Solar Energy Services Ltd are 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

The registry list for the period 1 July 2023 to 19 June 2024 was reviewed, to identify any ICPs with profiles that require certification of the control device.

Audit commentary

Examination of the list file found that Solar Energy Services Ltd 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 lead it to believe a metering installation could be inaccurate, defective, or not fit for purpose they must:

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

Audit observation

Processes relating to defective metering were examined.

Audit commentary

Defective meters are typically identified through the validation process, or from information provided by the MEP or customer. Upon identifying a possible defective meter, Solar Energy Services Ltd will raise a field services job to investigate.

No examples of defective meters were identified during the audit period.

Audit outcome

Compliant

6.5. Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2)

Code reference

Clause 2 Schedule 15.2

Code related audit information

Only a certified reconciliation participant may collect raw meter data, unless only the MEP can interrogate the meter, or the MEP has an arrangement which prevents the reconciliation participant from electronically interrogating the meter:

2(2) - The reconciliation participant must collect raw meter data used to determine volume information from the services interface or the metering installation or from the MEP.

2(3) - The reconciliation participant must ensure the interrogation cycle is such that it does not exceed the maximum interrogation cycle in the registry .

2(4) - The reconciliation participant must interrogate the meter at least once every maximum interrogation cycle.

2(5) - When electronically interrogating the meter the participant must:

- a) *ensure the system is to within +/- 5 seconds of NZST or NZDST*
- b) *compare the meter time to the system time*
- c) *determine the time error of the metering installation*
- d) *if the error is less than the maximum permitted error, correct the meter's clock*
- e) *if the time error is greater than the maximum permitted error then:*
 - i) *correct the metering installation's clock*
 - ii) *compare the metering installation's time with the system time*
 - iii) *correct any affected raw meter data.*
- f) *download the event log.*

2(6) – The interrogation systems must record:

- *the time*

- *the date*
- *the extent of any change made to the meter clock.*

Audit observation

HHR data and AMI midnight reads are provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Data collected by AMI MEPs.

HHR data is provided by one AMI MEP. Interrogation requirements and clock synchronisation were reviewed as part of the MEP audit.

AMI MEPs monitors clock synchronisation, and this is covered as part of their audits. The current AMI MEP will advise Solar Energy Services Ltd of clock synchronisation events via published meter event logs or specific time difference reports. Solar Energy Services Ltd did not receive any notifications of any clock synchronisation events outside the maximum permissible errors during the audit period.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined. No manual, customer, or photo reads were received while an ICP was submitted as NHH.

Audit commentary

AMI data is provided by MEPs. Validated readings are derived from actual meter readings.

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

Switch event meter readings in CS files were reviewed in **sections 4.3** and **4.10**.

Switch event meter readings in RR files were reviewed in **sections 4.4, 4.5** and **4.11**.

Audit commentary

All consumption volumes were provided from HHR data for the audit period.

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

I requested a list of all NHH ICPs not read during the period of supply.

Audit commentary

All ICPs currently have submission type HHR, and this clause does not apply.

Audit outcome

Not applicable

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

Code reference

Clause 8(1) and (2) Schedule 15.2

Code related audit information

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

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

Audit observation

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd currently have HHR metering and submission type.

Audit commentary

All ICPs currently have submission type HHR, and this clause does not apply.

Audit outcome

Not applicable

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

Code reference

Clause 9(1) and (2) Schedule 15.2

Code related audit information

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

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

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

Audit observation

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd currently have HHR metering and submission type.

Audit commentary

All ICPs currently have submission type HHR, and this clause does not apply.

Audit outcome

Not applicable

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

Code reference

Clause 10 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd currently have HHR metering and submission type.

Audit commentary

All ICPs currently have submission type HHR, and this clause does not apply.

Audit outcome

Not applicable

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

HHR data is provided by AMI MEPs. Compliance was assessed as part of their MEP audits.

Audit commentary

AMI MEPs are responsible for HHR data collection, and compliance is recorded in their audit reports.

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 provided by AMI MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits and found to be compliant.

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 provided by AMI MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits and found to be compliant.

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 provided by MEPs. Interrogation requirements and clock synchronisation were reviewed as part of MEP audits.

Audit commentary

Fulfilment of the interrogation systems requirements was examined as part of the MEP audits and found to be compliant.

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

Raw meter data is retained by MEPs, and compliance is assessed as part of their MEP audits.

Processes to archive and store raw meter data were reviewed.

Audit commentary

Compliance is recorded in the MEP audit reports.

Review of audit trails confirmed that reads cannot be modified without an audit trail being created. This is discussed further in **section 2.4**. Access to modify readings is restricted through log on privileges.

All raw reading files will be retained by John Candy Consulting for the foreseeable future, and during the audit I viewed files from when Solar Energy Services Ltd began trading in October 2022.

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

Processes to record non-metering information were discussed.

Audit commentary

Non metering information is not collected by Solar Energy Services Ltd; therefore, compliance was not assessed.

Audit outcome

Not applicable

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd have HHR metering and submission type.

Audit commentary

All ICPs have submission type HHR and were included in HHR submission files

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 correction and estimation were reviewed.

Audit commentary

HHR corrections are processed by John Candy Consulting as Solar Energy Services Ltd's agent. Corrections are created based on the best information available. Where readings are available, they are used in conjunction with a profile to back fill missing data, and where readings are unavailable an estimate is created based on historic information.

The estimates are created in an Excel tool then imported into the RM tool and labelled as "E" for estimated. The RM tool contains a record of file name, date, and time. Estimates are recorded at trading period level not daily level.

No HHR corrections were processed during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

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

The registry list as of 19 June 2024 was reviewed to identify any ICPs which require loss compensation.

Audit commentary

Solar Energy Services Ltd has not supplied ICPs error or loss compensation.

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

Corrections are discussed in **sections 2.1, 8.1 and 8.2**, which confirmed that raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

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

Audit commentary

Raw meter data is held by the MEPs and agents. Compliance was confirmed as part of their agent and MEP audits.

John Candy Consulting only corrects working data and keeps an appropriate audit trail.

Retention of raw metering data is discussed in **section 7.2** and audit trails are discussed in **section 2.4**.

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

A sample of reads and volumes were traced from the source files to Solar Energy Services Ltd's systems in **section 2.3**

Provision of estimated reads to other participants during switching was reviewed in **sections 4.3, 4.4, 4.5, 4.10** and **4.11**.

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

Audit commentary

Read types are recorded correctly. I checked the meter read and HHR interval data from source file to submission data for Solar Energy Services Ltd's single ICP for the periods June 2023 to May 2024 to confirm compliance.

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 data 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

A sample of submission data was reviewed in **sections 11** and **12**, to confirm that volume was based on readings as required.

All ICPs have metering category 1 and NHH and HHR data is collected MEPs and compliance was assessed as part of their audits.

Audit commentary

The MEP or agent retains raw, unrounded data. Compliance was demonstrated by the MEPs during their own audits.

Data provided by the MEPs and agents is not rounded or truncated. Submission data is rounded to two decimal places.

Audit outcome

Compliant

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 Schedule 15.2

Code related audit information

If a reconciliation participant is unable to interrogate an electronically interrogated metering installation before the deadline for providing submission information, the submission to the reconciliation manager must be the reconciliation participant's best estimate of the quantity of electricity that was purchased or sold in each trading period during any applicable consumption period for that metering installation.

The reconciliation participant must use reasonable endeavours to ensure that estimated submission information is within the percentage specified by the Authority.

Audit observation

I conducted a walkthrough of the validation processes. The John Candy Consulting RM Submission Process documentation was reviewed.

All current Solar Energy Services Ltd ICPs have category 1 HHR metering installed and receive electronic readings from the MEP.

Audit commentary

The process for estimation and correction is described in **section 8.2**.

No HHR estimations were processed during the audit period.

Audit outcome

Compliant

9.5. NHH metering information data validation (Clause 16 Schedule 15.2)

Code reference

Clause 16 Schedule 15.2

Code related audit information

Each validity check of non half hour meter readings and estimated readings must include the following:

16(2)(a) - confirmation that the meter reading or estimated reading relates to the correct ICP, meter, and register

16(2)(b) - checks for invalid dates and times

16(2)(c) - confirmation that the meter reading or estimated reading lies within an acceptable range compared with the expected pattern, previous pattern, or trend

16(2)(d) - confirmation that there is no obvious corruption of the data, including unexpected 0 values.

Audit observation

I conducted a walkthrough of the validation processes. The John Candy Consulting RM Submission Process documentation was reviewed.

All current Solar Energy Services Ltd ICPs have category 1 HHR metering installed and receive electronic readings from the MEP.

Audit commentary

Points “a” and “b” above are conducted by John Candy Consulting when data is loaded into the RM tool. Loading cannot occur unless there is an ICP, meter, register and date match. The RM tool also identifies missing start and end reads.

Point “c” and “d” above are also managed by John Candy Consulting within the RM Tool where inactive consumption, excessive consumption (10% or roll over amount), negative consumption, and zero consumption examples are identified and reported to Solar Energy Services Ltd. All HHR submitted ICPs also have their interval data graphed over two months looking to unexpected consumption patterns and where an anomaly is identified these are investigated and escalated where they cannot be explained. I checked the October 2022 submission, and no obvious data corruption was observed.

Once more ICPs are switched to Solar Energy Services additional validations including billing level volume checks will be implemented.

Reconciliation submissions

Processes to review reconciliation submission information are discussed in **section 12.3**.

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 participant 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 data validation process, including meter event logs.

Validation of electronic readings was also reviewed as part of the MEP audits.

Audit commentary

John Candy Consulting checks for ICPs against a current registry LIS file, missing meters against a current Registry PR255 file, missing interval data (part days and full days), unexpected zero consumption and invalid dates and times. For HHR settled ICPs, a month end validation of register readings compared to the sum of intervals for HHR data is undertaken.

The interval data for all HHR submitted ICPs is graphed over two months to check for unusual consumption patterns prior to submission.

There is also an invoice review by Solar Energy Services to ensure there are no unexpected changes to the consumption patterns.

Event files are provided by MEPs either routinely, or where events which could affect meter accuracy occur. These files are received via SFTP and are reviewed by John Candy Consulting and where an event that is likely to have resulted in the integrity of the AMI data is identified these are escalated to Solar Energy Services. Usually, meter integrity issues are identified through other validation checks prior to the receipt of the meter event logs, however the check is in place to ensure that there is an additional layer of validation in place.

A review of a sample of meter event logs for the months of April 2023, April 2024 and May 2024 was undertaken and no events requiring escalation were identified.

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

The NSP table on the registry was reviewed.

Audit commentary

Solar Energy Services Ltd is not responsible for any NSPs. No information is provided to the grid owner in accordance 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

The NSP table on the registry was reviewed.

Audit commentary

Solar Energy Services Ltd is not responsible for any NSPs. No information is provided to the grid owner in accordance 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

The NSP table on the registry was reviewed.

Audit commentary

Solar Energy Services Ltd is not responsible for any NSPs. No information is provided to the grid owner in accordance 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

The NSP table on the registry was reviewed.

Audit commentary

Solar Energy Services Ltd is not responsible for any NSPs. No information is provided to the grid owner in accordance 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

Processes to create buying and selling notifications were reviewed.

A registry list for the period 1 July 2023 to 19 June 2024 was reviewed confirm the profiles used.

Audit commentary

Solar Energy Services Ltd uses the HHR profiles during the audit period. Trading notifications were 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 are completed by John Candy Consulting as an agent. The process for the calculation of ICP days was examined by checking NSPs on the HHR AV110 submissions for June 2023 to May 2024.

I reviewed GR100 reports from June 2023 to May 2024 and investigated any NSP level ICP days differences, to determine why the difference had occurred.

Audit commentary

The process for the calculation of ICP days was examined by checking all NSPs on the HHR AV110 submissions for June 2023 to May 2024. The ICP days calculation was confirmed to be correct.

The following table shows the ICP days difference between Solar Energy Services Ltd’s database and the RM return file (GR100) for June 2023 to May 2024.

ICP Days difference between the registry and Solar Energy Services Ltd database

(Positive = Solar Energy Services Ltd data is lower than that on the registry).

Month	R0	R1	R3	R7
Jun-2023	0.00%	0.00%	0.00%	0.00%
Jul-2023	0.00%	0.00%	0.00%	0.00%
Aug-2023	0.00%	0.00%	0.00%	0.00%
Sep-2023	0.00%	0.00%	0.00%	0.00%
Oct-2023	0.00%	0.00%	0.00%	0.00%
Nov-2023	0.00%	0.00%	0.00%	
Dec-2023	0.00%	0.00%	0.00%	
Jan-2024	0.00%	0.00%	0.00%	
Feb-2024	0.00%	0.00%	0.00%	
Mar-2024	0.00%	0.00%		
Apr-2024	0.00%	0.00%		
May-2024	0.00%			

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

Electricity supplied submissions are completed by John Candy Consulting as an agent. The process for the calculation of as billed volumes was examined by checking the AV120 submission volumes against billed data for November 2022 to May 2024 to confirm the AV120 calculation was correct.

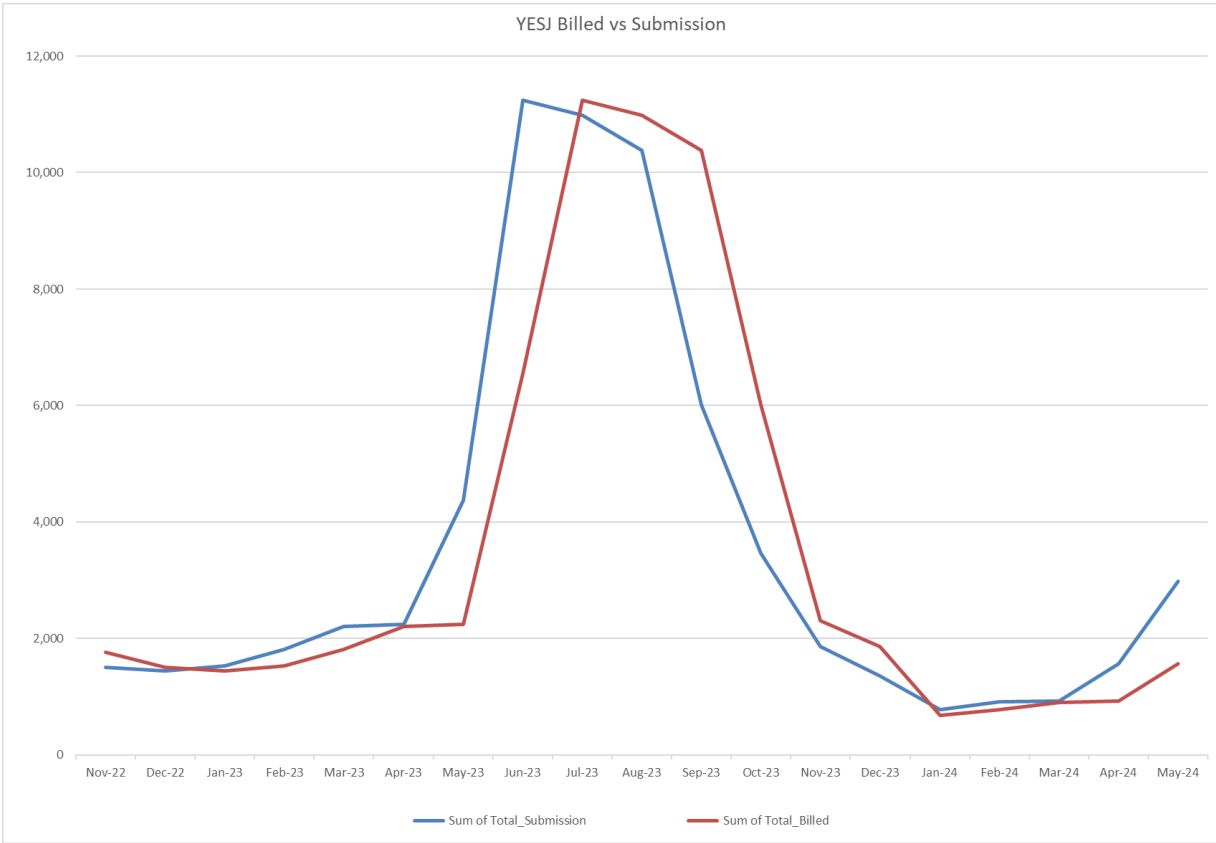
Audit commentary

The process for the calculation of as billed volumes was examined. John Candy Consulting provides Solar Energy Services with a billing input data file that is used to produce the customer invoices. This billing input data file is also used to produce the electricity supplied (AV-120) file. Part 1 of the code describes electricity supplied information as being “sourced directly from the retailer’s financial records”. The current process to source electricity supplied information does not source this data as an output from a billing or financial calculation or process. Solar energy Services provided copies of their single customers’ invoices that enabled the volume used in a financial calculation in the form of a billing calculation to be compared with the electricity supplied (AV-120) file. The total submitted on the AV120 matched the total billed provided by Solar Energy Services Ltd. It is recommended that Solar Energy Services reviews their electricity supplied process to source the data from their billing or financial system.

Description	Recommendation	Audited party comment	Remedial action
Review the electricity supplied process to source the data from billing or financial records.	It is recommended that Solar Energy Services reviews their electricity supplied process to source the data as an output from their billing or financial system instead of a billing input data file provided by the reconciliation process agent.	We will endeavour to implement this recommendation.	Identified

GR130 reports from November 2022 to May 2024 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Comparison between Submitted Volumes and Electricity Supplied



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

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates data with the HHR volumes data for 36 submissions, and HHR meter data received from the MEP for the September 2023 and April 2024 submissions.

HHR aggregates and volumes submissions were completed by John Candy Consulting as an agent.

The GR090 ICP Missing files were examined for June 2023 to May 2024.

Audit commentary

I checked the process for aggregation of HHR data is correct by matching:

- HHR aggregates information to the HHR volumes for 36 submissions and found they matched within ± 0.24 kWh, and
- the raw data received from the MEP to the HHR aggregates files for all ICPs in the September 2023 and April 2024 submissions; all periods which had volumes provided matched exactly to the MEP data, and compensation factors were correctly applied.

The GR090 ICP Missing files were examined for June 2023 to May 2024. No ICPs were missing from the registry or aggregates files.

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

Audit observation

HHR data is provided by MEPS. Compliance was assessed as part of their audits.

The daylight savings adjustment process was reviewed including viewing examples of ICPs moving into and out of daylight savings.

Audit commentary

Daylight savings processes for the MEPS were reviewed as part of their audits and found to be compliant.

I checked HHR volumes files for the end of daylight saving (24 September 2023 and the beginning of daylight savings (7 April 2024) was reviewed and confirmed that the correct number of trading periods were recorded.

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

Submissions information is created by John Candy Consulting as an agent.

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

Audit commentary

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

- Volumes are calculated and submitted for all active ICPs, regardless of whether they are vacant or occupied.
- Inactive ICPs continue to be read and have volumes submitted. Consumption during inactive periods is identified during the submission validation process and the registry is updated. No examples of genuine consumption during inactive periods were identified.
- Solar Energy Services Ltd currently supplies one ICP with distributed generation. The ICP had an EG register installed, and I confirmed that I flow volumes had been submitted HHR for all the submissions during the audit period.

I checked the accuracy of the HHR aggregates and HHR volumes files in **section 11.4**.

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**.

HHR aggregation was reviewed in **section 11.4**.

Audit commentary

HHR aggregation was reviewed in **section 11.4** and found to be compliant.

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 Solar Energy Services Ltd is not a grid owner.

Audit commentary

Review of the NSP table confirmed that Solar Energy Services Ltd is not a grid owner and is not required to submit grid owner volume information.

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

Review of the NSP table confirmed that Solar Energy Services Ltd does not own any local or embedded networks.

Audit commentary

Solar Energy Services Ltd 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

Review of the NSP table confirmed that Solar Energy Services Ltd is not a grid connected generator.

Audit commentary

Solar Energy Services Ltd is not required to provide grid connected generation submission information.

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 inaccurate.

Corrections were reviewed in **sections 8.1** and **8.2**.

Audit commentary

Review of alleged breaches confirmed that no reconciliation submissions were inaccurate.

Review of submissions confirmed revisions were submitted as expected.

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

Actual HHR data was used for all submissions during the audit period.

Audit commentary

Actual HHR data was used for all submissions during the audit period.

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:

- Solar Energy Services Ltd's single metered ICP is submitted as HHR,
- no ICPs with unmetered load are supplied,
- no profiles requiring a certified control device are used,
- no loss or compensation arrangements are required; and
- aggregation of the 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

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd have HHR metering and submission type.

Audit commentary

All ICPs have submission type HHR and were included in HHR submission files. No historic estimate or forward estimate volumes were produced during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 4 and 5 Schedule 15.3

Code related audit information

The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing 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

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd have HHR metering and submission type.

Audit commentary

All ICPs have submission type HHR and were included in HHR submission files. No historic estimate volumes were produced during the audit period.

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

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd have HHR metering and submission type.

Audit commentary

All ICPs have submission type HHR and were included in HHR submission files. No forward estimate volumes were produced during the audit period.

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

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd have HHR profile.

Audit commentary

Review of the registry list with history confirmed that all ICPs supplied by Solar Energy Services Ltd have HHR profile.

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 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
- consumption period.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

When reporting submission information, the number of decimal places must be rounded to not more than 2 decimal places.

If the unrounded digit to the right of the second decimal place is greater than or equal to 5, the second digit is rounded up, and

If the digit to the right of the second decimal place is less than 5, the second digit is unchanged.

Audit observation

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

Audit commentary

Submission information is appropriately 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

All ICPs have submission type HHR and were included in HHR submission files. No historic estimate volumes were produced during the audit period.

Audit commentary

All ICPs have submission type HHR.

Audit outcome

Compliant

CONCLUSION

Solar Energy Services Ltd is a reconciliation participant and is therefore required to be a certified reconciliation participant in accordance with clause 15.38 of part 15.

Solar Energy Services Ltd has one active ICP which is settled as HHR with distributed generation. Solar Energy Services intends to grow their customer base over the short and medium term.

There was no registry or switching interactions during the audit period

I confirmed the following as part of Solar Energy Services audit:

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

No non-compliances were identified during this audit.

Two recommendations were made regarding:

- Implementing a pre submission review of reconciliation files produced by an agent prior to instructing these to be upload into the reconciliation manager portal.
- Reviewing the process to produce electricity supplied information as an output of a billing or financial process.

The audit risk rating is zero, indicating that the next audit be due in 36 months. I have considered this in conjunction with Solar Energy Services Ltd comments and I recommend the next audit is conducted in 36 months.

PARTICIPANT RESPONSE