ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

GLOBUG LIMITED

NZBN: 9429030265516

Prepared by: Steve Woods

Date audit commenced: 12 July 2024

Date audit report completed: 28 July 2024

Audit report due date: 31 July 2024

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EXECUTIVE SUMMARY

Globug Ltd (Globug) intends to manage Globug registry, switching and submission activities in Gentrack Velocity (GTV) rather than SAP. GTV is an existing system used for Mercury's other participant code (TRUS) and the same functionality will be used. A material change audit is still required because Globug has not previously used GTV. Data will be migrated to GTV from SAP rather than being "switched", because the same participant code will be used. The main areas I checked were as follows:

- ability for GTV to have two participant codes,
- data migration plan and results,
- test plan and results for switching, registry management and submission, and
- validation reporting.

Globug also intends to commence HHR submission at a later date, therefore this audit has also examined the already existing HHR submission capability as it will apply to Globug.

Clause 16A.11 of Part 16 requires that if a participant intends to make a "material" change to any system or process then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Mercury so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 16A.11(1).

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.2, which was produced by the Electricity Authority. Globug intends to start using the new systems for the July 2024 submissions, which are due by August 7th, 2024.

Globug will use the standard functionality of GTV and GCMDS and the existing functionality of their current systems. This material change audit concludes that system and process design is compliant, except for one issue, which is that NHH AMI readings will not have decimal places present at the time of file preparation, due to a limitation of GTV. This issue has no impact because consumption is still continuous.

Globug's next audit is due by 28 November 2024, and I recommend this date remains the same.

The matter raised is shown in the table below:

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Meter data used to derive volume information	9.3	3(5) of schedule 15.2	NHH AMI raw meter data is rounded upon receipt and not when volume information is created.	Strong	Low	1	Investigating
Future Risk Rating						1	

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

RECOMMENDATIONS

Subject	Section	Recommendation
		Nil

ISSUES

Subject	Section	Description	Issue
		Nil	

1. ADMINISTRATIVE

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

Code reference

Section 11 of Electricity Industry Act 2010.

Code related audit information

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

Audit observation

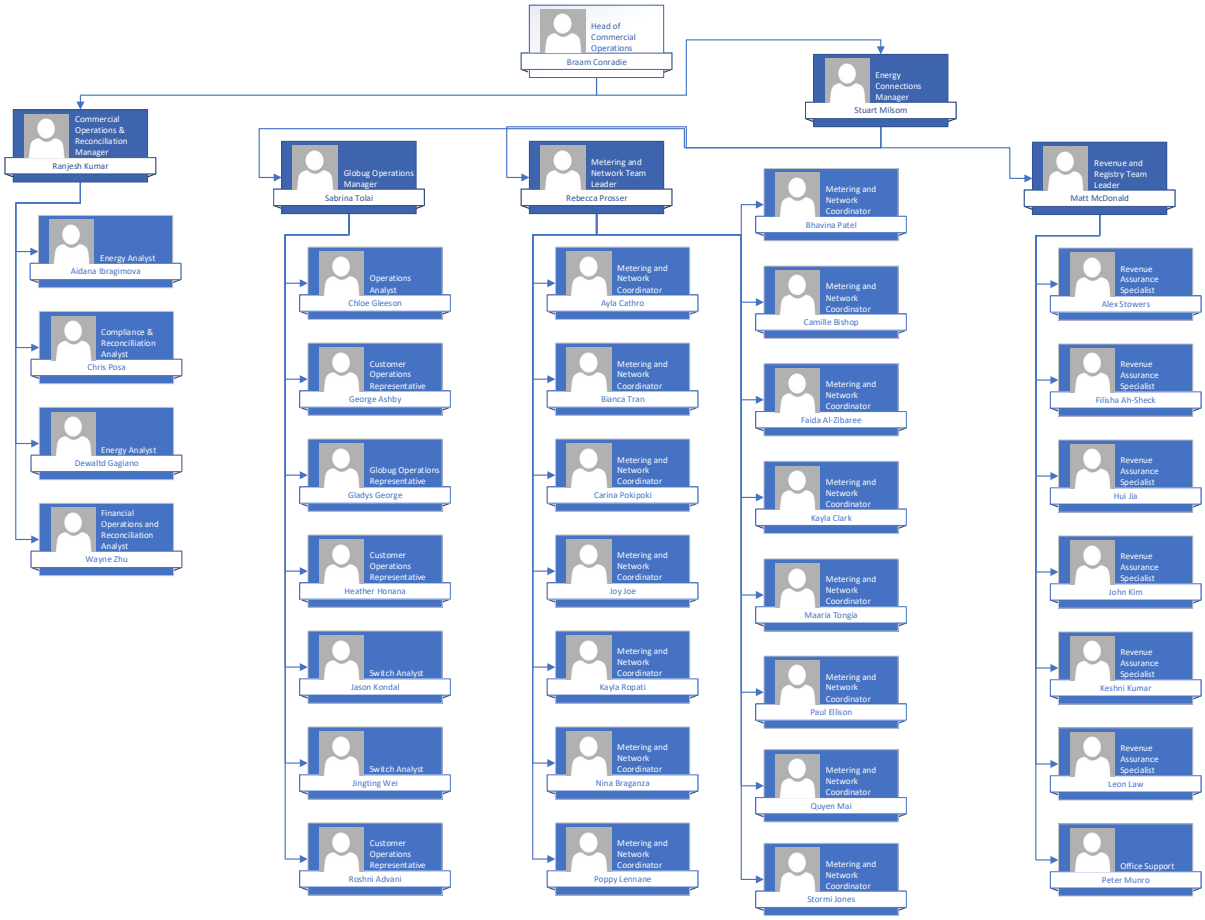
Current code exemptions were reviewed on the Electricity Authority website.

Audit commentary

Globug has no current exemptions relevant to this audit.

1.2. Structure of Organisation

Globug provided their current organisational structure, which is shown below.



1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Steve Woods	Veritek Limited	Auditor

Globug personnel assisting in this audit were:

Name	Title
Chris Posa	Compliance Reconciliation Analyst
Jungeun Lee	Reconciliation Analyst
Tony McGeady	Consultant

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

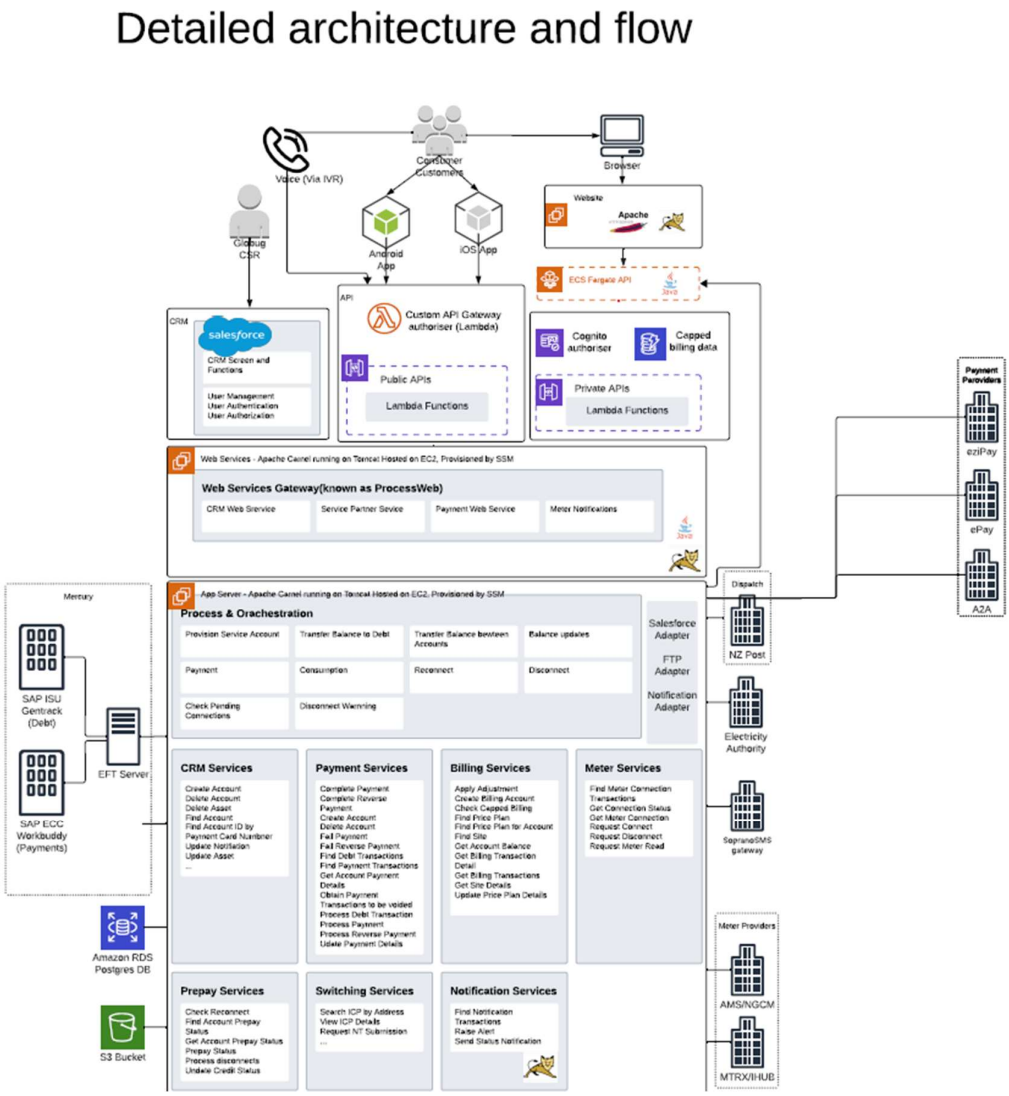
There will be no change to the use of agents.

Audit commentary

There will be no change to the use of agents.

1.5. Hardware and Software

A diagram of Globug's proposed system configuration is shown below. The main change being the use of Gentrack rather than SAP for activities relevant to the scope of this audit.



Globug data is stored in two locations. AWS RDS Database and SalesForce CRM.

The AWS RDS Database is backed up with daily snapshots that are stored for one month. There is also a monthly backup in a private s3 bucket.

SalesForce is a cloud based PAAS CRM, within its own backups. For the Globug specific data, it is exported to RDS for reporting purposes. This then falls under the backup arrangements mentioned above.

Access to data sources is password controlled.

1.6. Breaches or Breach Allegations

Globug confirmed that there were no breach allegations relevant to the scope of the audit during the audit period.

1.7. ICP Data

All "active" ICPs are summarised by metering category in the table below. This information is from the November 2023 audit report.

Metering Category	2023	2022	2021	2020	2019	2018
1	20,383	21,335	21,481	22,362	25,046	26,739
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	-	-	-	-	-
5	-	-	-	-	-	-
9	-	-	14	-	-	3
Blank	-	-	-	-	-	-

Status	2023	2022	2021	2020	2019	2018
Active (2,0)	20,383	21,335	21,495	22,362	25,046	26,742
Inactive – new connection in progress (1,12)	-	-	-	-	-	-
Inactive – electrically disconnected vacant property (1,4)	209	204	208	157	119	103
Inactive – electrically disconnected remotely by AMI meter (1,7)	614	654	616	632	537	705
Inactive – electrically disconnected at pole fuse (1,8)	6	4	2	3	4	0
Inactive – electrically disconnected due to meter disconnected (1,9)	30	30	-	22	21	12
Inactive – electrically disconnected at meter box fuse (1,10)	-	1	-	-	-	1
Inactive – electrically disconnected at meter box switch (1,11)	-	-	-	-	-	-
Inactive – electrically disconnected ready for decommissioning (1,6)	47	46	25	19	12	6
Inactive – reconciled elsewhere (1,5)	-	-	-	-	-	-
Decommissioned (3)	1,663	1,506	1,328	1,077	924	734

1.8. Authorisation Received

Authorisation was not required.

1.9. Scope of Audit

Mercury NZ Ltd (Mercury) intends to manage Globug registry, switching and submission activities in Gentrack Velocity (GTV) rather than SAP. GTV is an existing system used for Mercury's other participant code (TRUS) and the same functionality will be used. A material change audit is still required because Globug has not previously used GTV. Data will be migrated to GTV from SAP rather than being "switched", because the same participant code will be used. The main areas I checked were as follows:

- ability for GTV to have two participant codes,
- data migration plan and results,
- test plan and results for switching, registry management and submission, and
- validation reporting.

Globug also intends to commence HHR submission at a later date, therefore this audit has also examined the already existing HHR submission capability as it will apply to Globug.

Clause 16A.11 of Part 16 requires that if a participant intends to make a "material" change to any system or process then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Mercury so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 16A.11(1).

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.2, which was produced by the Electricity Authority.

1.10. Summary of previous audit

Globug provided a copy of their previous audit report conducted in November 2023 by Tara Gannon of Provera. The summary table below shows one issue relevant to the scope of this audit. This issue will remain as non-compliance because GTV does not import decimal places either.

Table of non-compliance

Subject	Section	Clause	Non-Compliance	Status
Meter data used to derive volume information	9.3	3(5) of schedule 15.2	Raw meter data is rounded on entry into SAP.	Still existing

Table of recommendations

Subject	Section	Recommendation	Status
		Nil	

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

I checked whether the system or any processes resulted in non-compliance with this clause.

Audit commentary

I did not identify any examples of non-compliance with this clause.

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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Compliant

2.3. Data transmission (Clause 20 Schedule 15.2)

Code reference

Clause 20 Schedule 15.2

Code related audit information

Transmissions and transfers of data related to metering information between reconciliation participants or their agents, for the purposes of the Code, must be carried out electronically using systems that ensure the security and integrity of the data transmitted and received.

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 of schedule 15.2

Code related audit information

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

The audit trail must include details of information:

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

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

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

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

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

- *an activity identifier (clause 21(4)(a)),*
- *the date and time of the activity (clause 21(4)(b)),*
- *the operator identifier (clause 21(4)(c)).*

Audit observation

I checked that the GTV audit trail will remain unchanged.

Audit commentary

The GTV audit trail will remain unchanged and has been confirmed as compliant in other audits for Mercury for other participant codes.

Audit outcome

Compliant

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

Code reference

Clause 10.4

Code related audit information

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

The trader must use its best endeavours to provide access:

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

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clauses 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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B)

Code reference

Clause 11.15B

Code related audit information

A trader must at all times ensure that the terms of each contract between a customer and a trader permit:

- *the Authority to assign the rights and obligations of the trader under the contract to another trader if the trader commits an event of default under paragraph (a) or (b) or (f) or (h) of clause 14.41 (clause 11.15B(1)(a)); and*
- *the terms of the assigned contract to be amended on such an assignment to—*
- *the standard terms that the recipient trader would normally have offered to the customer immediately before the event of default occurred (clause 11.15B(1)(b)(i)); or*
- *such other terms that are more advantageous to the customer than the standard terms, as the recipient trader and the Authority agree (clause 11.15B(1)(b)(ii); and*
- *the terms of the assigned contract to be amended on such an assignment to include a minimum term in respect of which the customer must pay an amount for cancelling the contract before the expiry of the minimum term (clause 11.15B(1)(c)); and*
- *the trader to provide information about the customer to the Authority and for the Authority to provide the information to another trader if required under Schedule 11.5 (clause 11.15B(1)(d)); and*
- *the trader to assign the rights and obligations of the trader to another trader (clause 11.15B(1)(e)).*

The terms specified in subclause (1) must be expressed to be for the benefit of the Authority for the purposes of the Contracts (Privacy) Act 1982, and not be able to be amended without the consent of the Authority (clause 11.15B(2)).

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

2.9. Connection of an ICP (Clause 10.32)

Code reference

Clause 10.32

Code related audit information

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

2.10. Temporary Electrical Connection of an ICP (Clause 10.33(1))

Code reference

Clause 10.33(1)

Code related audit information

A reconciliation participant may temporarily electrically connect a point of connection, or authorise an MEP to temporarily electrically connect a point of connection, only if:

- *they are recorded in the registry as being responsible for the ICP; and*
- *one or more certified metering installations are in place at the ICP in accordance with Part 10; and*
- *for an ICP that has not previously been electrically connected, the network owner has given written approval.*

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(1)

Code related audit information

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

2.12. Arrangements for line function services (Clause 11.16)

Code reference

Clause 11.16

Code related audit information

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

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

Audit observation

The process to ensure an arrangement is in place before trading commences on a network was reviewed.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

2.13. Arrangements for metering equipment provision (Clause 10.36)

Code reference

Clause 10.36

Code related audit information

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 10.33A(5)

Code related audit information

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

2.15. Electrical disconnection of ICPs (Clause 10.33B)

Code reference

Clause 10.33B

Code related audit information

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 10.33C and 2A of Schedule 15.2

Code related audit information

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

- *the MEP is unable to remotely electrically connect the ICP,*
- *the MEP cannot repair a fault with the meter due to safety concerns,*

- *the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer.*

If the trader bridges a meter, the trader must:

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

The trader must determine meter readings as follows:

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 11.30

Code related audit information

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

Audit observation

Globug is a pre-paid service provider and does not produce invoices. The Globug app, account balance documents, and documents relating to the sale and purchase of electricity were reviewed.

Audit commentary

Globug provided evidence that the ICP number is recorded on:

- the Globug app,
- price change letters, and
- account balance documents.

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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 11.30B

Code related audit information

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

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 10 of schedule 11.1

Code related audit information

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

Audit observation

I checked processes and functionality for registry management.

Audit commentary

Registry information will be managed in GTV using the same functionality as that currently used.

Testing was conducted in GTV to ensure registry files for the TRUS code did not include GBUG ICPs. Compliance is confirmed.

The requirement to provide information within five business days is largely process related and these processes will not change.

Audit outcome

Compliant

3.4. Trader responsibility for an ICP (Clause 11.18)

Code reference

Clause 11.18

Code related audit information

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

A trader ceases to be responsible for an ICP if:

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

Most of the requirements of this clause are process related and will not change, however I checked processes and functionality for registry management with regard to MEP nominations.

Audit commentary

Registry information will be managed in GTV using the same functionality as that currently used.

Testing was conducted in GTV to ensure registry files for MEP nomination for the TRUS code did not include GBUG ICPs. Compliance is confirmed.

Audit outcome

Compliant

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

Code reference

Clause 9 of 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 five 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

I checked processes and functionality for registry management.

Audit commentary

Registry information will be managed in GTV using the same functionality as that currently used.

Testing was conducted in GTV to ensure registry files for the TRUS code did not include GBUG ICPs. Compliance is confirmed.

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

I checked processes and functionality for registry management.

Audit commentary

Registry information will be managed in GTV using the same functionality as that currently used.

Testing was conducted in GTV to ensure registry files for the TRUS code did not include GBUG ICPs.

I confirmed that the ANZSIC code validation process at the time of switch in will remain the same and that the audit compliance reports will continue to be monitored bi-monthly to check for invalid, blank or unknown ANZSIC codes.

Compliance is confirmed.

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

Globug does not accept unmetered load ICPs, however there are examples where shared unmetered load is added after switch-in, therefore I checked that the details are in GTV, and that submission occurs correctly.

Audit commentary

I checked ICP 0005313236RNE6A, which has shared unmetered load, to ensure it was correctly recorded in GTV and that submission will occur correctly. This ICP is listed in a report to be set up in GTV prior to the first submission by day-4 in August 2024. The information in the report is correct.

Audit outcome

Compliant

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

Code reference

Clause 17 of schedule 11.1

Code related audit information

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

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

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

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

Audit observation

I checked processes and functionality for registry management.

Audit commentary

Registry information will be managed in GTV using the same functionality as that currently used.

Testing was conducted in GTV to ensure registry files for the TRUS code did not include GBUG ICPs.

Requests for reconnection and disconnection are conducted using the same processes and systems as currently used. Status changes are sent to GTV in a file, which has been tested and confirmed as accurate, then GTV populates the registry. I checked two ICPs where registry files had been sent to the registry and acknowledged.

Compliance is confirmed.

Audit outcome

Compliant

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

Code reference

Clause 19 of 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

I checked processes and functionality for registry management.

Audit commentary

Registry information will be managed in GTV using the same functionality as that currently used.

Testing was conducted in GTV to ensure registry files for the TRUS code did not include GBUG ICPs.

Requests for reconnection and disconnection are conducted using the same processes and systems as currently used. Status changes are sent to GTV in a file, which has been tested and confirmed as accurate,

then GTV populates the registry. I checked two ICPs where registry files had been sent to the registry and acknowledged.

Compliance is confirmed.

Audit outcome

Compliant

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

Code reference

Clause 15 of 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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

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

Code reference

Clause 2 of schedule 11.3

Code related audit information

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

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

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

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

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 of schedule 11.3

Code related audit information

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

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

When establishing an event date for clause 4, the losing trader must disregard every event date established by the losing trader for a customer who has been with the losing trader for less than two calendar months (clause 4(2) of schedule 11.3).

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 5 of 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 five business days after the event date, the losing trader must complete the switch by:

- *providing event date to the registry manager (clause 5(a)); and*
- *provide to the gaining trader a switch event meter reading as at the event date, for each meter or data storage device that is recorded in the registry with accumulator of C and a settlement indicator of Y (clause 5(b)); and*

- *if a switch event meter reading is not a validated reading, provide the date of the last meter reading (clause 5(c)).*

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clauses 6(1) and 6A of 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 four calendar months of the actual event date, provide to the losing trader a changed switch event meter reading supported by two validated meter readings.

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

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

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) of 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 five business days after receiving final information from the registry manager, may provide the losing trader with a switch event meter reading from that meter. The losing trader must use that switch event meter reading.*

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 7 of 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 Globug whether any disputes have needed to be resolved in accordance with this clause.

Audit commentary

Globug 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 of 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 two business days after the arrangement comes into effect.

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

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

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 10(1) of schedule 11.3

Code related audit information

10(1) Within five 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:*
  - *confirmation of the switch event date; and*
  - *a valid switch response code; and*
  - *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—*
  - *is not earlier than the gaining trader's proposed event date, and*
  - *is no later than ten business days after the date the losing trader receives notice, or*
- *10(1)(c) request that the switch be withdrawn in accordance with clause 17.*

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 10(2) of schedule 11.3

Code related audit information

If the losing trader determines a different date, the losing trader must also complete the switch by providing to the registry manager as described in subclause (1)(a):

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

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 11 of schedule 11.3

Code related audit information

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

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

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 12 of 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 four calendar months of the actual event date, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by two validated meter readings and the losing trader must either (clause 12(2)(b) and clause 12(3)):*
- *advise the gaining trader if it does not accept the switch event meter reading and the losing trader and the gaining trader must resolve the dispute in accordance with the dispute procedure in clause 15.29 (with all necessary amendments) (clause 12(3)(a)); or*
- *if the losing trader notifies its acceptance or does not provide any response, the losing trader must use the switch event meter reading supplied by the gaining trader (clause 12(3)(b)).*

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

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

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

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

Code reference

Clause 13 of 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 through or assume responsibility for:

- *a half hour metering installation (that is not a category 1 or 2 metering installation) at an ICP with a submission type of half hour in the registry and an AMI flag of "N"; or*
- *a half hour metering installation at an ICP that has a submission type of half hour in the registry and an AMI flag of "N" and is traded by the losing trader as non-half hour; or*
- *a non-half hour metering installation at an ICP at which the losing trader trades electricity through a half hour metering installation with an AMI flag of "N".*

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

As Globug is pre-pay trader they do not trade at category 3 and above sites.

Audit commentary

Not applicable

Audit outcome

Not applicable

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

Code reference

Clause 15 of schedule 11.3

Code related audit information

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

> *15(a) - provide to the registry manager a valid switch response code as approved by the Authority; or*
>
> *15(b) - provide a request for withdrawal of the switch in accordance with clause 17.*

Audit observation

As Globug is pre-pay trader they do not trade at category 3 and above sites.

Audit commentary

Not applicable

Audit outcome

Not applicable

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

Code reference

Clause 16 of schedule 11.3

Code related audit information

The gaining trader must complete the switch no later than three 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

As Globug is pre-pay trader they do not trade at category 3 and above sites.

Audit commentary

Not applicable

Audit outcome

Not applicable

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

Code reference

Clauses 17 and 18 of 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 two 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)):*
    - *the participant identifier of the trader making the withdrawal request (clause 18(c)(i)); and*
    - *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 ten 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 two business days after receiving notice from the registry manager in accordance with clause 22(b), the losing trader must comply with clauses 3,5,10 and 11 (whichever is appropriate) and the gaining trader must comply with clause 16 (clause 18(f)).*

Audit observation

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

4.16. Metering information (Clause 21 Schedule 11.3)

Code reference

Clause 21 of 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

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

Audit outcome

Compliant

4.17. Switch saving protection (Clause 11.15AA to 11.15AC)

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 contacted 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

I checked whether switching processes or systems were affected by the material change.

Audit commentary

Switching will continue to be conducted in the existing Globug systems. Files will continue to be transferred to and from the registry. GTV will be populated manually and if there is a failure of an automated file to the registry, the registry will be populated manually, as it currently is.

In summary, the only change is that there will not be any level of automation with regard to the population of GTV, as there is with SAP; all data entry will all be conducted manually. Training has been provided with regard to data entry into GTV.

The timeliness of switching files will continue to be managed through a daily switch breach report, as it currently is.

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

Globug does not accept unmetered load ICPs, however there are examples where shared unmetered load is added after switch-in, therefore I checked that the details are in GTV, and that submission occurs correctly.

Audit commentary

I checked ICP 0005313236RNE6A, which has shared unmetered load, to ensure it was correctly recorded in GTV and that submission will occur correctly. This ICP is listed in a report to be set up in GTV prior to the first submission by day-4 in August 2024. The information in the report is correct.

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 AC020 reports were examined to identify all unmetered load over 3,000 kWh per annum.

Audit commentary

No ICPs with standard unmetered load were found.

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 ten 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:*
    - *the date the limit was calculated or estimated to have been exceeded*
    - *the details of the corrective measures that the MEP proposes to take or is taking to reduce the unmetered load.*

Audit observation

The AC020 reports were examined to identify all unmetered load over 3,000 kWh per annum.

Audit commentary

No ICPs with standard unmetered load were found.

Audit outcome

Compliant

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

Code reference

Clause 11 of 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 AC020 reports were examined to identify any distributed unmetered load ICPs

Audit commentary

Examination of the list file confirmed there were no ICPs with distributed unmetered load.

Audit outcome

Not applicable

6. GATHERING RAW METER DATA

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

Code reference

Clause 10.13, clause 10.24 and clause 15.13

Code related audit information

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

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

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

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

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

Code related audit information

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

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

The participant responsible for the metering installation must:

- *advise the reconciliation manager of the certification expiry date not later than ten 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 network supply points table was reviewed to determine whether Globug is responsible for any GIPs.

Audit commentary

Review of the network supply points table confirmed that Globug does not supply 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 of schedule 10.7 and clause 2(2) of 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 and AC020 trader compliance report were reviewed to determine compliance.

Audit commentary

Globug has only used the RPS profile, and control devices are not used for reconciliation purposes.

Audit outcome

Not applicable

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

I checked whether there would be any change to the processes to identify defective metering installations.

Audit commentary

Defective meters are typically identified through the meter reading validation process (which includes checks of zero consumption), customer enquiries, review of meter events, or return of field services paperwork. These processes will not change, and the same processes will be used to raise field services jobs.

Audit outcome

Compliant

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

Code reference

Clause 2 of schedule 15.2

Code related audit information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clauses 3(1), 3(2) and 5 of 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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 6 of schedule 15.2

Code related audit information

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

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

Audit observation

The process of the application of meter readings was examined.

Audit commentary

Testing was successfully conducted to ensure readings are correctly populated in GTV, in accordance with this clause.

Audit outcome

Compliant

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

Code reference

Clause 7(1) and (2) of 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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

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) of 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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

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) of 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 four months, for which consumption information is required to be reported into the reconciliation process. A validated meter reading is obtained at least once every four months for 90% of the non-half hour metered ICPs.

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

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

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 10 of 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

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change.

Audit outcome

Not applicable

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

Code reference

Clause 11(1) of 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

Globug intends to commence submitting HHR data in the near future, therefore I checked the proposed HHR data management processes.

Audit commentary

Globug will receive data from MEPs who have responsibility for data collection.

Audit outcome

Compliant

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

Code reference

Clause 11(2) of 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

Globug intends to commence submitting HHR data in the near future, therefore I checked the proposed HHR data management processes.

Audit commentary

Globug will receive data from MEPs who have responsibility for data collection.

Audit outcome

Compliant

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

Code reference

Clause 11(3) of 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

Globug intends to commence submitting HHR data in the near future, therefore I checked the proposed HHR data management processes.

Audit commentary

Globug will receive data from MEPs who have responsibility for data collection.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 of schedule 15.2

Code related audit information

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

Audit observation

Globug intends to commence submitting HHR data in the near future, therefore I checked the proposed HHR data management processes.

Audit commentary

Globug will receive data from MEPs who have responsibility for data collection and trading period duration. The GCMDS system will be used by Globug to manage HHR data, and this system stores data in HHR trading periods.

Audit outcome

Compliant

7.2. Archiving and storage of raw meter data (Clause 18 Schedule 15.2)

Code reference

Clause 18 of schedule 15.2

Code related audit information

A reconciliation participant who is responsible for interrogating a metering installation must archive all raw meter data and any changes to the raw meter data for at least 48 months, in accordance with clause 8(6) of schedule 10.6.

Procedures must be in place to ensure that raw meter data cannot be accessed by unauthorised personnel.

Meter readings cannot be modified without an audit trail being created.

Audit observation

Processes to archive and store raw meter data were reviewed.

Audit commentary

When meter reading data reaches GTV the level of security is robust, and unauthorised personnel cannot access data. Metering, billing and risk control have access to modify meter reading information in GTV.

Compliance with clause 18.3 of schedule 15.2 was examined, which requires that "meter readings cannot be modified without an audit trail being created." Readings cannot be modified in GTV without an audit trail being created.

Audit outcome

Compliant

7.3. Non-metering information collected / archived (Clause 21(5) Schedule 15.2)

Code reference

Clause 21(5) of 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

Globug does not deal with any non-metering information.

Audit commentary

Globug does not deal with any non-metering information.

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) of schedule 15.2

Code related audit information

If errors are detected during validation of non-half hour meter readings, one of the following must be undertaken:

> *19(1)(a) - confirmation of the original meter reading by carrying out another meter reading,*
>
> *19(1)(b) - replacement of the original meter reading by another meter reading (even if the replacement meter reading may be at a different date),*
>
> *19(1)(c) - if the original meter reading cannot be confirmed or replaced by a meter reading from another interrogation, then an estimated reading is substituted, and the estimated reading is marked as an estimate, and it is subsequently replaced in accordance with clause 4(2).*

Audit observation

This area will not change as a result of the material change.

Audit commentary

This area will not change as a result of the material change. GTV's standard functionality allows the correct labelling of estimated reads where necessary.

Audit outcome

Compliant

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

Code reference

Clause 19(2) of schedule 15.2

Code related audit information

If errors are detected during validation of half hour metering information the correction must be as follows:

> *19(2)(a) - if a check meter or data storage device is installed at the metering installation, data from this source may be substituted,*
>
> *19(2)(b) - in the absence of any check meter or data storage device, data may be substituted from another period if the total of all substituted intervals matches the total consumption recorded on the meter, if available, and the pattern of consumption is considered materially similar to the period in error.*

Audit observation

The functionality of the GCMDS system was checked to ensure corrections and audit trails would be conducted in a compliant manner.

Audit commentary

GCMDS standard functionality and processes will be used, which are described below.

Where errors are detected during validation of HHR metering information, and check metering data is not available, then data from a period with a quantity and profile similar to that expected is used. There is a dropdown list for the user to select the correction technique. The common techniques are as follows:

- extrapolate - a previous similar time period is used,
- interpolate - a previous time period is used, and the result is permanent,
- divide/multiply - this technique is used for examples like phase failure,
- add - data is added to existing data, and
- type in - if a manual calculation is performed or if check metering is used the result can be entered.

When previous time periods are used, the day of the week is considered, so if data is missing for a Tuesday, the data for the same time period on the previous Tuesday will be considered. Statutory holidays are also taken into consideration. There is a built-in audit trail for all estimations and corrections.

The process for HHR-to-HHR meter changes is that the old HHR meter is removed effective 11.59 p.m. on the day before the meter change. The new meter is installed effective 12.00 a.m. on the day of the meter change. Actual HHR volumes on the new meter are recorded from the first interval it registered consumption onwards, and consumption on the old HHR is recorded as estimated on the new meter in the earlier intervals on the day of installation. This ensures that all consumption is captured.

If corrections for meter bridging, phase failure, multipliers or faulty meters are required, the ICP will be changed to a NHH profile for a period spanning the correction period. NHH correction will occur using compliant processes, then the ICP will be changed back to HHR once the correction is completed.

Audit outcome

Compliant

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

Code reference

Clause 19(3) of schedule 15.2

Code related audit information

If error compensation and loss compensation are carried out as part of the process of determining accurate data, the compensation process must be documented and must comply with audit trail requirements.

Audit observation

Processes for error and loss compensation were examined.

Audit commentary

Globug will not deal with any error and loss compensation arrangements.

Audit outcome

Compliant

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

Code reference

Clause 22(1) and (2) of schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

Raw meter data is not overwritten as part of the correction process. Audit trails are discussed in **section 2.4**.

Audit commentary

Raw meter data is not overwritten as part of the correction process. 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) of 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

I checked GTV and GCMDS functionality and associated processes with regard to the identification of readings and HHR data.

Audit commentary

Both systems have automated estimation functionality, which correctly identifies estimates. Manually entered data can be identified correctly as estimated if required.

Audit outcome

Compliant

9.2. Derivation of volume information (Clause 3(4) Schedule 15.2)

Code reference

Clause 3(4) of 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

I checked systems and processes in relation to this clause.

Audit commentary

All files are generated using validated readings, or if they are not available, then correctly identified estimates are used.

Audit outcome

Compliant

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

Code reference

Clause 3(5) of 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

I checked whether data would be rounded or truncated prior to the preparation of submission files.

Audit commentary

HHR data (AMI and C&I) is not rounded or truncated and is compliant. NHH AMI data is rounded upon receipt and not when volume information is created.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 9.3 With: clause 3(5) of schedule 15.2 From: 01-Aug-24 To: 31-Aug-24	NHH AMI raw meter data is rounded upon receipt and not when volume information is created. Potential impact: Low Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	**Rationale for audit risk rating**
Low	The controls are rated as strong and will mitigate risk to an acceptable level. There is no impact because no metered consumption information is "missing", therefore the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
We have raised a ticket to thoroughly investigate the possibility of resolving this issue via a system change. At a glance it is complicated by the reliance of interconnected systems and processes (e.g. switching, billing, reconciliation) however as noted we plan to confirm the viability once and for all. If we are not able to solve this via a system change, then we will look at other options such as applying for a Code change or exemption.	Dec 2024	Investigating
Preventative actions taken to ensure no further issues will occur	**Completion date**	
As above.	N/A	

9.4. Half hour estimates (Clause 15 Schedule 15.2)

Code reference

Clause 15 of 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

The functionality of the GCMDS system was checked to ensure corrections and audit trails would be conducted in a compliant manner.

Audit commentary

GCMDS standard functionality and processes will be used, which are described below.

Where errors are detected during validation of HHR metering information, and check metering data is not available, then data from a period with a quantity and profile similar to that expected is used. There is a dropdown list for the user to select the correction technique. The common techniques are as follows:

- extrapolate - a previous similar time period is used,
- interpolate - a previous time period is used, and the result is permanent,
- divide/multiply - this technique is used for examples like phase failure,
- add - data is added to existing data, and
- type in - if a manual calculation is performed or if check metering is used the result can be entered.

When previous time periods are used, the day of the week is considered, so if data is missing for a Tuesday, the data for the same time period on the previous Tuesday will be considered. Statutory holidays are also taken into consideration. There is a built-in audit trail for all estimations and corrections.

Audit outcome

Compliant

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

Code reference

Clause 16 of 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 zero values.*

Audit observation

I checked the NHH data validation processes, including GTV validation settings.

Audit commentary

The read data validation process includes:

- missing readings including where there are multiple meter points for an ICP,
- ICPs with no registers,
- multiple reads available,
- transposed registers on two rate meters,
- multipliers of one which should be greater than one,
- embedded generation where GTV has load instead of generation,
- incorrect register content codes, and
- incorrect unit of measure.

Monitoring occurs of meters with zero consumption to identify stopped meters.

"Inactive" and "vacant" consumption fails validation and is reviewed by the vacant property team, who try to obtain a customer registration and determine whether the ICP should be disconnected.

Customer information is held in Salesforce; GTV has "Globug" recorded as the customer, therefore GTV will always have a customer recorded, which means the management of vacant" and "inactive" consumption is slightly different to the standard GTV functionality and uses a combination of Salesforce and consumption information to identify consumption on "vacant" or "inactive" ICPs. Investigations occur and disconnection occurs if a customer cannot be identified. ICPs are changed back to "active" to ensure submission occurs where there is consumption on "inactive" ICPs.

Further volume information validation occurs in the AV-080 data creation process which is described in **section 12.3**.

Audit outcome

Compliant

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

Code reference

Clause 17 of schedule 15.2

Code related audit information

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

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

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

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

17(4)(c) - checks of unexpected zero values,

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

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

17(4)(f) - a review of the meter and data storage device event log for any event that could have affected the integrity of metering data must be investigated,

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

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

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

Audit observation

I checked the AMI data validation processes.

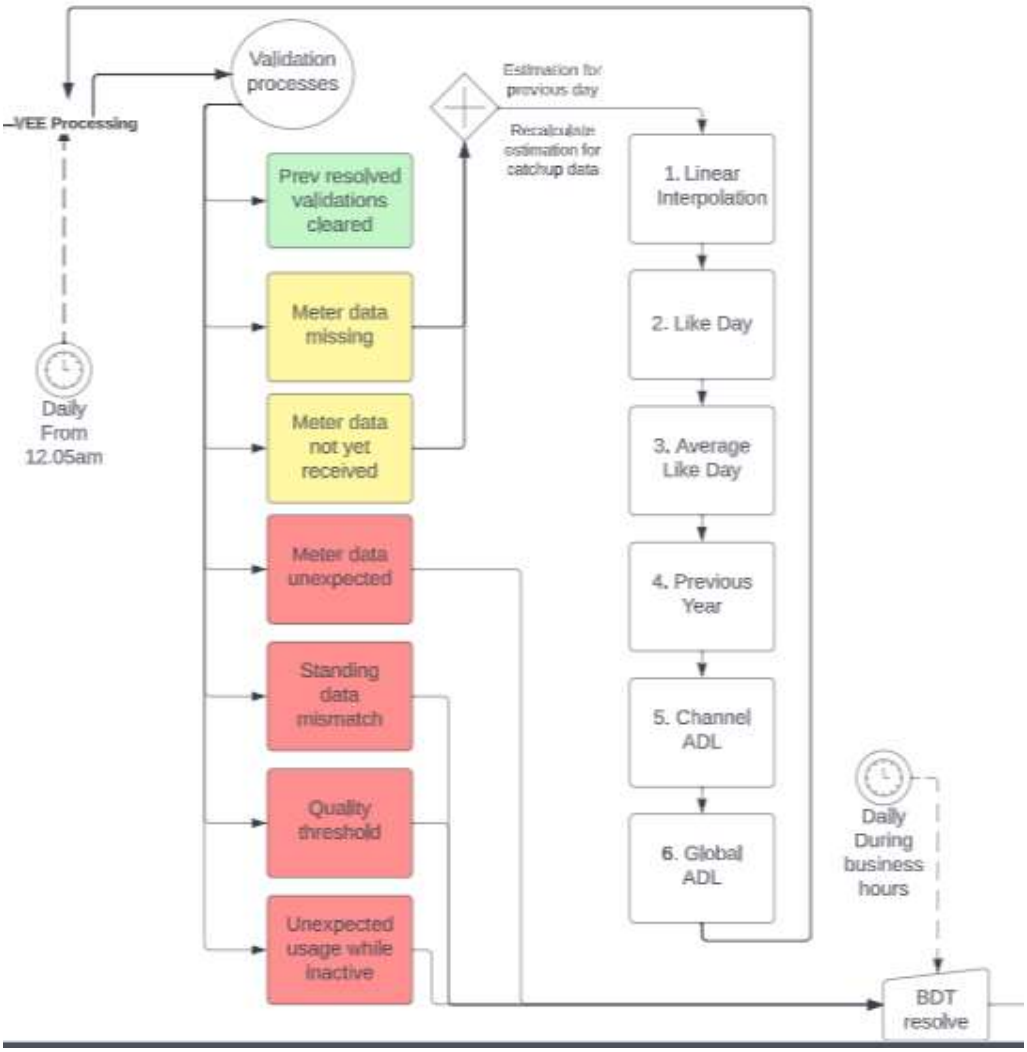
Audit commentary

AMI data is validated using the validation process described in **section 9.5.**

NHH AMI data is provided by MEPs via SFTP. The process for reviewing meter event information was confirmed during the previous audit and has not changed.

HHR data validation will follow a different process which will include validation for unexpected zero values, and comparison against consumption history. The HHR validations will ensure that missing data and invalid dates and times will be identified.

The validation settings are shown below:



Standing data mismatch - Checks the meter serial number and register number against the standing data - exceptions are reported.

Meter data unexpected - When a received stream is “inactive” or not present in standing data.

Meter data missing - for gaps in interval data for a stream, or where data is received for only some expected streams for the service point.

Meter data not received yet - NO data received for any expected streams for the service point for the period.

Unexpected Usage While Inactive - When detects non-zero consumption during an “inactive” period.

Sum Check Validation Failure - Checks the total sum of interval values against the boundary reads by validating that the percentage difference between them is not greater than the specified threshold.

Negative consumption is found between readings - triggers when the new boundary read is lower than the previous boundary read.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

Globug is not responsible for any NSPs. No information is provided to the pricing manager 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 pricing manager and the relevant grid owner half-hour metering information for:

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

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

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

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

Globug is not responsible for any NSPs. No information is provided to the pricing manager 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

Globug is not responsible for any NSPs. No information is provided to the pricing manager 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 the pricing manager or a grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 0500 hours of that day, advise the relevant grid owner.

Audit observation

The NSP table on the registry was reviewed.

Audit commentary

Globug is not responsible for any NSPs. No information is provided to the pricing manager 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

A registry list was reviewed to confirm that only the RPS profile was used.

Audit commentary

As Globug has only used the RPS profile; 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

I checked test results to confirm that ICP days calculations were correct and only included Globug ICPs.

Audit commentary

Test results confirmed that the ICP days calculations were correct and that the ICP days files were accurate.

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

I checked test results to confirm that electricity supplied calculations were correct and only included Globug ICPs.

Audit commentary

Test results confirmed that the electricity supplied calculations were correct and that the ICP days files were accurate.

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

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

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

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

Audit observation

I checked test results to confirm that HHR aggregates and HHR volumes files were accurate.

Audit commentary

Test results confirmed that HHR aggregates and HHR volumes files were accurate.

Audit outcome

Compliant

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

The reconciliation participant must provide submission information to the reconciliation manager that is adjusted for NZDT using one of the techniques set out in clause 15.36(3) specified by the Authority.

Audit observation

Daylight savings processes for MEPs and agents were reviewed as part of their audits and confirmed as compliant.

Audit commentary

Daylight savings processes for MEPs and agents were reviewed as part of their audits and confirmed as compliant. All data supplied is pre-adjusted for daylight saving.

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

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs. Further comment is made below.

Vacant ICPs with consumption

This is discussed in **section 9.5**, where it is confirmed that submission will occur for ICPs without a consumer recorded.

Inactive ICPs with consumption

This is discussed in **section 9.5**, where it is confirmed that submission will occur for "inactive" ICPs without a consumer recorded, but where consumption is recorded. The status will be changed back to "active" to enable this.

Unmetered load

Unmetered load will be submitted using standard GTV functionality.

Distributed generation

Globug does not have any distributed generation.

ICPs held for one day

Previous audit reports have recorded issues with ICPs being held for one day, where submission has not occurred for that day. This occurs where an ICP does not have communicating AMI or HHR metering installed, and the meter cannot be repaired or replaced on a timely basis. Globug will turn down the ICP and require it to switch out after one day. Submission will occur correctly, provided that the ICPs are set up correctly, which is a manual process and for which training has been provided.

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

I checked the registry synchronisation and validation processes in GTV and the test results for NHH and HHR submission files to confirm compliance.

Audit commentary

The registry synchronisation and validation processes described in **section 2.1** ensure that aggregation factors are correct.

Test results confirmed the accuracy and completeness of NHH and HHR submission files.

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

The registry list and NSP table were reviewed.

Audit commentary

Globug is not a grid owner; compliance was not assessed.

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Globug is not a local or embedded network owner; compliance was not assessed.

Audit outcome

Not applicable

12.6. Grid connected generation (Clause 15.11)

Code reference

Clause 15.11

Code related audit information

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

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

Audit observation

The registry list and NSP table were reviewed.

Audit commentary

Globug is not responsible for any grid connected generation; compliance was not assessed.

Audit outcome

Not applicable

12.7. Accuracy of submission information (Clause 15.12)

Code reference

Clause 15.12

Code related audit information

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

Audit observation

I checked test results to ensure revision files will be prepared and submitted.

Audit commentary

Revision files will be sent each month using standard functionality. Test results confirmed these files will be accurate and complete.

Audit outcome

Compliant

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

Code reference

Clause 4 of schedule 15.2

Code related audit information

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

Volume information created using estimated readings must be subsequently replaced at the earliest opportunity by the reconciliation participant by volume information that has been created using validated meter readings or permanent estimates by, at the latest, the month 14 revision cycle.

A permanent estimate may be used in place of a validated meter reading, but only if, despite having used reasonable endeavours; the reconciliation participant has been unable to obtain a validated meter reading.

Audit observation

All ICPs have transferred from SAP to GTV with an actual reading or a permanent estimate. I checked the process for ensuring that all NHH submission will be based on historic estimates by the 14-month revision.

Audit commentary

A query will be run to identify any ICPs with forward estimate remaining at revision 14. Each ICP will be reviewed to determine whether any readings are available which can be loaded into GTV, otherwise the oldest estimated read causing forward estimate is changed to a permanent estimate. Compliance will be checked in future audits to ensure that there has been a check to ensure that the reasonable endeavours requirement to obtain an actual reading has been met before the change.

Audit outcome

Compliant

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

Code reference

Clause 2 of schedule 15.3

Code related audit information

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

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

Audit observation

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs.

Audit outcome

Compliant

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

Code reference

Clause 3 of schedule 15.3

Code related audit information

For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the following techniques to create historical estimates and forward estimates (clause 3(1)).

Each estimate that is a forward estimate or a historical estimate must clearly be identified as such (clause 3(2)).

If validated meter readings are not available for the purpose of clauses 4 and 5, permanent estimates may be used in place of validated meter readings (clause 3(3)).

Audit observation

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs. GTV standard forward and historic estimate functionality will be used.

Audit outcome

Compliant

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

Code reference

Clauses 4 and 5 of schedule 15.3

Code related audit information

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

If a seasonal adjustment shape is not available, the methodology for preparing an historical estimate of volume information for each ICP must be the same as in clause 4, except that the relevant quantities kWh_{Px} must be prorated as determined by the reconciliation participant using its own methodology or on a flat shape basis using the relevant number of days that are within the consumption period and within the period covered by kWh_{Px}.

Audit observation

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs. GTV standard forward and historic estimate functionality will be used.

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 of 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

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs. GTV standard forward and historic estimate functionality will be used.

Audit outcome

Compliant

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

Code reference

Clause 7 of 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

Globug only uses the RPS profile, and it is not expected that any profile changes will occur.

Audit commentary

Globug only uses the RPS profile, and it is not expected that any profile changes will occur.

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 of schedule 15.3

Code related audit information

Submission information provided to the reconciliation manager must be aggregated to the following level:

- *NSP code (clause 8(a)),*
- *reconciliation type (clause 8(b)),*
- *profile (clause 8(c)),*
- *loss category code (clause 8(d)),*
- *flow direction (clause 8(e)),*
- *dedicated NSP (clause 8(f)),*
- *trading period for half hour metered ICPs and consumption period or day for all other ICPs (clause 8(g)).*

Audit observation

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 of schedule 15.3

Code related audit information

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

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

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

Audit observation

I checked the test results to confirm compliance.

Audit commentary

Submission information will be 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 of 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

I checked the test results for NHH and HHR submission files to ensure they will be accurate.

Audit commentary

The test results confirmed that NHH and HHR submission files will be accurate and will include all relevant ICPs. GTV standard forward and historic estimate functionality will be used.

Audit outcome

Compliant

CONCLUSION

Globug Ltd (Globug) intends to manage Globug registry, switching and submission activities in Gentrack Velocity (GTV) rather than SAP. GTV is an existing system used for Mercury's other participant code (TRUS) and the same functionality will be used. A material change audit is still required because Globug has not previously used GTV. Data will be migrated to GTV from SAP rather than being "switched", because the same participant code will be used. The main areas I checked were as follows:

- ability for GTV to have two participant codes,
- data migration plan and results,
- test plan and results for switching, registry management and submission, and
- validation reporting.

Globug also intends to commence HHR submission at a later date, therefore this audit has also examined the already existing HHR submission capability as it will apply to Globug.

Clause 16A.11 of Part 16 requires that if a participant intends to make a "material" change to any system or process then the changes must be subject to an audit prior to the change taking place. This audit was therefore performed at the request of Mercury so that it can be supplied to the Electricity Authority to satisfy the requirements of Clause 16A.11(1).

The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits version 7.2, which was produced by the Electricity Authority. Globug intends to start using the new systems for the July 2024 submissions, which are due by August 7th, 2024.

Globug will use the standard functionality of GTV and GCMDS and the existing functionality of their current systems. This material change audit concludes that system and process design is compliant, except for one issue, which is that NHH AMI readings will not have decimal places present at the time of file preparation, due to a limitation of GTV. This issue has no impact because consumption is still continuous.

Globug's next audit is due by 28 November 2024, and I recommend this date remains the same.

PARTICIPANT RESPONSE

Thanks to Steve for his work and assistance with this material change audit.