

ELECTRICITY INDUSTRY PARTICIPATION CODE  
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For

GLOBUG LIMITED  
NZBN: 9429030265516

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## TABLE OF CONTENTS

Executive summary .....	6
Audit summary .....	8
Non-compliances .....	8
Recommendations .....	14
Issues .....	15
1. Administrative.....	16
1.1. Exemptions from Obligations to Comply with Code (Section 11).....	16
1.2. Structure of Organisation.....	17
1.3. Persons involved in this audit.....	18
1.4. Use of Agents (Clause 15.34).....	19
1.5. Hardware and Software .....	19
1.6. Breaches or Breach Allegations.....	20
1.7. ICP Data .....	20
1.8. Authorisation Received .....	21
1.9. Scope of Audit .....	21
1.10. Summary of previous audit .....	23
2. Operational Infrastructure.....	27
2.1. Relevant information (Clause 10.6, 11.2, 15.2).....	27
2.2. Provision of information (Clause 15.35).....	33
2.3. Data transmission (Clause 20 Schedule 15.2) .....	33
2.4. Audit trails (Clause 21 Schedule 15.2).....	33
2.5. Retailer responsibility for electricity conveyed - participant obligations (Clause 10.4)..	34
2.6. Retailer responsibility for electricity conveyed - access to metering installations (Clause 10.7(2),(4),(5) and (6)) .....	35
2.7. Physical location of metering installations (Clauses 10.35(1)&(2)).....	35
2.8. Trader contracts to permit assignment by the Authority (Clause 11.15B) .....	36
2.9. Connection of an ICP (Clause 10.32) .....	37
2.10. Temporary Electrical Connection of an ICP (Clause 10.33(1)).....	37
2.11. Electrical Connection of Point of Connection (Clause 10.33A) .....	38
2.12. Arrangements for line function services (Clause 11.16) .....	39
2.13. Arrangements for metering equipment provision (Clause 10.36) .....	40
2.14. Connecting ICPs then withdrawing switch (Clause 10.33A(5)) .....	41
2.15. Electrical disconnection of ICPs (Clause 10.33B).....	43
2.16. Removal or breakage of seals (Clause 48(1C), 48 (1D), 48 (1E), 48 (1F) of Schedule 10.7).....	43
2.17. Meter bridging (Clause 10.33C and 2A of Schedule 15.2).....	44
2.18. Use of ICP identifiers on invoices (Clause 11.30) .....	45
2.19. Provision of information on dispute resolution scheme (Clause 11.30A).....	46
2.20. Provision of information on electricity plan comparison site (Clause 11.30B) .....	46
3. Maintaining registry information.....	48
3.1. Obtaining ICP identifiers (Clause 11.3).....	48
3.2. Providing registry information (Clause 11.7(2)).....	48
3.3. Changes to registry information (Clause 10 Schedule 11.1) .....	49
3.4. Trader responsibility for an ICP (Clause 11.18) .....	53
3.5. Provision of information to the registry manager (Clause 9 Schedule 11.1) .....	54
3.6. ANZSIC codes (Clause 9 (1(k) of Schedule 11.1).....	55

3.7.	Changes to unmetered load (Clause 9(1)(f) of Schedule 11.1) .....	56
3.8.	Management of “active” status (Clause 17 Schedule 11.1) .....	57
3.9.	Management of “inactive” status (Clause 19 Schedule 11.1) .....	59
3.10.	ICPs at new or ready status for 24 months (Clause 15 Schedule 11.1) .....	62
4.	Performing customer and embedded generator switching .....	63
4.1.	Inform registry of switch request for ICPs - standard switch (Clause 2 Schedule 11.3)..	63
4.2.	Losing trader response to switch request and event dates - standard switch (Clauses 3 and 4 Schedule 11.3) .....	63
4.3.	Losing trader must provide final information - standard switch (Clause 5 Schedule 11.3)	65
4.4.	Retailers must use same reading - standard switch (Clause 6(1) and 6A Schedule 11.3)	69
4.5.	Non-half hour switch event meter reading - standard switch (Clause 6(2) and (3) Schedule 11.3) .....	71
4.6.	Disputes - standard switch (Clause 7 Schedule 11.3) .....	72
4.7.	Gaining trader informs registry of switch request - switch move (Clause 9 Schedule 11.3) .....	72
4.8.	Losing trader provides information - switch move (Clause 10(1) Schedule 11.3) .....	73
4.9.	Losing trader determines a different date - switch move (Clause 10(2) Schedule 11.3)	76
4.10.	Losing trader must provide final information - switch move (Clause 11 Schedule 11.3)	76
4.11.	Gaining trader changes to switch meter reading - switch move (Clause 12 Schedule 11.3) .....	80
4.12.	Gaining trader informs registry of switch request - gaining trader switch (Clause 14 Schedule 11.3) .....	82
4.13.	Losing trader provision of information - gaining trader switch (Clause 15 Schedule 11.3)	83
4.14.	Gaining trader to advise the registry manager - gaining trader switch (Clause 16 Schedule 11.3) .....	84
4.15.	Withdrawal of switch requests (Clauses 17 and 18 Schedule 11.3) .....	84
4.16.	Metering information (Clause 21 Schedule 11.3) .....	87
4.17.	Switch saving protection (Clause 11.15AA to 11.15AC) .....	90
5.	Maintenance of unmetered load .....	91
5.1.	Maintaining shared unmetered load (Clause 11.14) .....	91
5.2.	Unmetered threshold (Clause 10.14 (2)(b)) .....	92
5.3.	Unmetered threshold exceeded (Clause 10.14 (5)) .....	92
5.4.	Distributed unmetered load (Clause 11 Schedule 15.3, Clause 15.37B) .....	93
6.	Gathering raw meter data .....	94
6.1.	Electricity conveyed & notification by embedded generators (Clause 10.13, Clause 10.24 and 15.13) .....	94
6.2.	Responsibility for metering at GIP (Clause 10.26 (6), (7) and (8)) .....	96
6.3.	Certification of control devices (Clause 33 Schedule 10.7 and clause 2(2) Schedule 15.3)	97
6.4.	Reporting of defective metering installations (Clause 10.43(2) and (3)) .....	97
6.5.	Collection of information by certified reconciliation participant (Clause 2 Schedule 15.2)	98
6.6.	Derivation of meter readings (Clauses 3(1), 3(2) and 5 Schedule 15.2) .....	100
6.7.	NHH meter reading application (Clause 6 Schedule 15.2) .....	101
6.8.	Interrogate meters once (Clause 7(1) and (2) Schedule 15.2) .....	102
6.9.	NHH meters interrogated annually (Clause 8(1) and (2) Schedule 15.2) .....	104
6.10.	NHH meters 90% read rate (Clause 9(1) and (2) Schedule 15.2) .....	106
6.11.	NHH meter interrogation log (Clause 10 Schedule 15.2) .....	108
6.12.	HHR data collection (Clause 11(1) Schedule 15.2) .....	108
6.13.	HHR interrogation data requirement (Clause 11(2) Schedule 15.2) .....	108

6.14.	HHR interrogation log requirements (Clause 11(3) Schedule 15.2).....	109
7.	Storing raw meter data .....	111
7.1.	Trading period duration (Clause 13 Schedule 15.2).....	111
7.2.	Archiving and storage of raw meter data (Clause 18 Schedule 15.2) .....	111
7.3.	Non-metering information collected / archived (Clause 21(5) Schedule 15.2) .....	112
8.	Creating and managing (including validating, estimating, storing, correcting and archiving) volume information.....	113
8.1.	Correction of NHH meter readings (Clause 19(1) Schedule 15.2).....	113
8.2.	Correction of HHR metering information (Clause 19(2) Schedule 15.2).....	113
8.3.	Error and loss compensation arrangements (Clause 19(3) Schedule 15.2) .....	114
8.4.	Correction of HHR and NHH raw meter data (Clause 22(1) and (2) Schedule 15.2).....	114
9.	Estimating and validating volume information.....	116
9.1.	Identification of readings (Clause 3(3) Schedule 15.2).....	116
9.2.	Derivation of volume information (Clause 3(4) Schedule 15.2).....	118
9.3.	Meter data used to derive volume information (Clause 3(5) Schedule 15.2).....	118
9.4.	Half hour estimates (Clause 15 Schedule 15.2).....	119
9.5.	NHH metering information data validation (Clause 16 Schedule 15.2) .....	120
9.6.	Electronic meter readings and estimated readings (Clause 17 Schedule 15.2) .....	121
10.	Provision of metering information to the pricing manager in accordance with subpart 4 of Part 13 (clause 15.38(1)(f)) .....	123
10.1.	Generators to provide HHR metering information (Clause 13.136) .....	123
10.2.	Unoffered & intermittent generation provision of metering information (Clause 13.137).....	123
10.3.	Loss adjustment of HHR metering information (Clause 13.138).....	124
10.4.	Notification of the provision of HHR metering information (Clause 13.140) .....	124
11.	Provision of submission information for reconciliation.....	125
11.1.	Buying and selling notifications (Clause 15.3) .....	125
11.2.	Calculation of ICP days (Clause 15.6) .....	125
11.3.	Electricity supplied information provision to the reconciliation manager (Clause 15.7).....	128
11.4.	HHR aggregates information provision to the reconciliation manager (Clause 15.8) ..	130
12.	Submission computation .....	131
12.1.	Daylight saving adjustment (Clause 15.36) .....	131
12.2.	Creation of submission information (Clause 15.4).....	131
12.3.	Allocation of submission information (Clause 15.5) .....	133
12.4.	Grid owner volumes information (Clause 15.9).....	135
12.5.	Provision of NSP submission information (Clause 15.10) .....	135
12.6.	Grid connected generation (Clause 15.11).....	135
12.7.	Accuracy of submission information (Clause 15.12) .....	136
12.8.	Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2) .....	140
12.9.	Reconciliation participants to prepare information (Clause 2 Schedule 15.3) .....	141
12.10.	Historical estimates and forward estimates (Clause 3 Schedule 15.3).....	142
12.11.	Historical estimate process (Clauses 4 and 5 Schedule 15.3).....	142
12.12.	Forward estimate process (Clause 6 Schedule 15.3).....	145
12.13.	Compulsory meter reading after profile change (Clause 7 Schedule 15.3).....	149
13.	Submission format and timing .....	151
13.1.	Provision of submission information to the RM (Clause 8 Schedule 15.3) .....	151

13.2. Reporting resolution (Clause 9 Schedule 15.3) .....	152
13.3. Historical estimate reporting to RM (Clause 10 Schedule 15.3) .....	152
14. Glossary of Terms.....	155
Conclusion .....	156
Participant response .....	156

## EXECUTIVE SUMMARY

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

This audit is for the GBUG participant code, which supplies NHH reconciled ICPs with AMI pre-pay meters.

Globug has undergone some staffing changes in its operations area during the audit period, and significant efforts are being made to clarify responsibilities and improve timeliness and accuracy of data. We noted a marked improvement in identification and correction of errors following these changes in August 2022. The team was very helpful during the audit and showed willingness to learn from the audit process and make improvements.

Noticeable improvement has been made in the following areas since the last audit:

<b>Read attainment</b>	A clean-up project is underway to resolve issues with non-communicating meters.
<b>AN file content</b>	A historic issue where AN codes were based on the ICP's credit status instead of connection status was resolved during the audit period, preventing non-compliance later in the audit period.
<b>Corrections</b>	Corrections for faulty and bridged meters were consistently processed accurately.

The key areas which require improvement are:

<b>Switch losses</b>	<p>Not all switch breach types were being monitored using the switch breach history report, which caused some late files.</p> <p>AN and CS content for the 40% of files which are manually generated files was sometimes inaccurate, and I have recommended staff are provided further training to improve compliance.</p> <p>Globug's process to generate CS files for ICPs which switch out after one day because Globug cannot supply them is non-compliant, and I recommend this is revised.</p>
<b>Readings</b>	Some readings were incorrectly classified as actual or estimated in SAP or switching files.
<b>Registry information</b>	<p>SalesForce, SAP, and the registry are updated with static data separately and with different frequencies, which can result in inaccuracies, discrepancies between the systems and late data updates. A project is underway to increase the frequency of updates for disconnections and reconnections, and timeliness has improved recently.</p> <p>To reduce data discrepancies, I recommend that validation between SalesForce, SAP and the registry is conducted.</p> <p>A high proportion of ICPs with non-residential ANZSIC codes had incorrect codes applied.</p>
<b>Submission</b>	Disconnection and reconnection readings are not routinely entered into SAP. This makes consumption during inactive periods which requires status

correction and interaction with the customer more difficult to identify and can result in consumption being apportioned to incorrect periods for reconciliation.

AV120 electricity supplied reports do not include unmetered load but should record all load supplied to customers.

Distributed generation consumption is not submitted, where these ICPs are temporarily supplied before being switched out.

**Read validation**

Further validation of AMI meter events and clock synchronisation events is needed to identify potentially inaccurate data.

This audit found 31 non-compliances and an audit risk rating of 58. This is an increase from the previous audit which found 24 non-compliances and an audit risk rating of 45. While the risk rating has increased it does not indicate a large decline in compliance. The new issues found this audit were generally minor and/or affected a small number of ICPs, and most of the non-compliances have also been recorded in previous audits. Issues relating to ICP turn downs, which switch out after one day of supply caused non-compliances throughout the switching, read accuracy and submission accuracy sections of the report. Either preventing these ICPs from switching in or making sure they are handled promptly and in line with the Code would significantly improve compliance.

The indicative audit frequency table indicates the next audit should be in three months. I have considered this result in conjunction with the comprehensive responses from Globug which indicate that the solutions to the non-compliances have been identified or are being investigated, and I recommend that the next audit be in ten months.

The matters raised are shown in the tables below:

## AUDIT SUMMARY

### NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	10.6,11.2 & 15.2	Some registry discrepancies. Some submission accuracy issues.	Moderate	Medium	4	Investigating
Electrical Connection of Point of Connection	2.11	10.33A	45 ICPs reconnected without metering being certified.	Moderate	Low	2	Identified
Arrangements for metering equipment provision	2.13	10.36	ICP 0000650671TP122 was supplied on 30 May 2022 and there was no arrangement in place with the MEP.	Strong	Low	1	Identified
Connecting ICPs then withdrawing switch	2.14	10.33A (1) (a)	Alleged breach 2208GBUG1 for reconnecting an ICP where Globug was not the trader, and not restoring the disconnection when the switch was withdrawn.	Moderate	Low	2	Identified
Changes to registry information	3.3	10 of schedule 11.1	391 late status updates to active. 2,255 (52%) late status updates to inactive. 42 late trader updates. Three late ANZSIC code updates for new switch ins.	Moderate	Low	2	Identified
ANZSIC code	3.6	9(1)(k) Schedule 11.1	18 (39.1%) of the 46 ICPs with a non-residential code were incorrect, and they were all correctly updated to residential during the audit.	Strong	Low	1	Cleared
Management of "active" status	3.8	17 Schedule 11.1	Six of the 15 reconnections checked had incorrect active status dates recorded on the registry.	Moderate	Low	2	Identified
Management of "inactive" status	3.9	19 Schedule 11.1	One of the 19 disconnections checked had an incorrect inactive status date recorded on the registry. Two disconnections had incorrect status reason codes recorded. Credit disconnections not updated on the registry or	Moderate	Low	2	Identified



Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>SAP for each full day the ICPs are inactive.</p> <p>Consumption apportioned incorrectly between consumption periods for disconnected ICPs with consumption recorded during the inactive period for 32 ICPs</p>				
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	<p>ICP 0457376273LC573 6 September 2022 had the AA (Acknowledge and accept) response code manually applied but should have had AD (advanced metering).</p> <p>ICPs 0000149152UNC36 1 October 2021, 0006515932RN302 20 January 2022, 0000800860TE024 17 February 2022 and 0000600423TU0FE 3 February 2022 had the PD (premises disconnected) response code applied based on the credit status but should have had AD (advanced metering) because they were not disconnected.</p>	Strong	Low	1	Identified
Losing trader must provide final information - standard switch	4.3	5 of schedule 11.3	<p>12 CS breaches for transfer switches.</p> <p>Three WR breaches for transfer switches.</p> <p>Two T2 breaches for transfer switches.</p> <p>Three manually created transfer CS files had incorrect average daily kWh.</p> <p>Two manually created transfer CS files did not have correct CS event readings, including one 1-day supply ICP with zero consumption estimated.</p>	Moderate	Low	2	Identified
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	<p>One RR breach for a transfer switch.</p> <p>ICP 0005082536RNBB8 29 October 2021 was recorded with an estimated read type in SAP instead of actual.</p> <p>ICPs 0313702047LC2A9 28 March 2022 and 0000012648TR928 27 July</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			2022 were recorded with an actual read type in SAP instead of estimate.				
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	<p>Eight E2 breaches.</p> <p>124 T2 breaches.</p> <p>Nine WR breaches.</p> <p>ICPs 1002143120LCC87 17 March 2022, 0328203033LC30D 5 September 2022, 1002056840LC1D3 18 February 2022 and 0583861776LCA76 3 March 2022 had the PD (premises disconnected) response code applied based on the credit status but should have had AD (advanced metering) because they were not disconnected.</p>	Moderate	Low	2	Identified
Losing trader provision of final information	4.10	11 Schedule 11.3	<p>One manually created switch move CS had an incorrect read type.</p> <p>Six manually created switch move CS files contained incorrect switch event reads, including four 1-day supply ICPs with zero consumption estimated and one 1-day supply ICP where negative consumption was estimated.</p> <p>One manually created switch move CS had an incorrect last actual read date.</p> <p>Six manually created switch move CS files had incorrect average daily kWh.</p>	Moderate	Low	2	Identified
Gaining trader changes to switch meter reading - switch move.	4.11	12 Schedule 11.3	<p>ICPs 0000741472TUAEA 31 August 2022 and 1002080286LC428 24 August 2022 were recorded with an actual read type in SAP instead of estimate.</p> <p>ICPs 0000022439WED82 24 May 2022 and 0430927037LCBBC 5 March 2022 did not have the agreed switch reading recorded in SAP resulting in combined over submission of 1,051 kWh.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>ICP 0000609928UN569 10 December 2021 had an RR issued for an incorrect time slice which was rejected by the other trader.</p> <p>The RR for ICP 0000002574CP867 3 August 2022 was only supported by one validated actual reading.</p> <p>14 RR breaches for switch moves.</p>				
Withdrawal of switch requests	4.15	17 & 18 of schedule 11.3	<p>Four of the 21 NW files sampled had an incorrect NW code.</p> <p>18 NA breaches.</p> <p>Two SR breaches.</p>	Moderate	Low	2	Identified
Metering information	4.16	21 of Schedule 11.3	<p>Eight CS files contained event readings which did not reflect the actual reading or best estimate of actual consumption at the end of the last day of supply.</p> <p>22 ICPs supplied for one day switched out with the same reading they switched in on, and the switch event reading did not reflect the best estimate of actual consumption at the end of the last day of supply.</p>	Moderate	Low	2	Identified
Electricity conveyed	6.1	10.13	<p>Five ICPs with distributed generation present but export metering is not present.</p> <p>Energy is not metered and quantified according to the code where meters are bridged.</p>	Moderate	Low	2	Identified
Collection of information by certified reconciliation participant	6.5	2 Schedule 15.2	<p>Time correction of 3.28 days for ICP 0030102179PCE39 was not reviewed or raw meter data assessed to determine if any correction was required.</p>	Moderate	Low	2	Identified
NHH meter reading application	6.7	6 Schedule 15.2	<p>Two transfer switches sent with the incorrect read.</p> <p>Five switch move ICPs sent with incorrect estimated reads.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Exceptional circumstances not proven for ICP 0300620020LC732 not read during period of supply.	Strong	Low	1	Identified
NHH meters interrogated annually	6.9	8(1) & (2) of schedule 15.2	Exceptional circumstances not proven for four ICPs not read in the past 12 months.	Strong	Low	1	Identified
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	Exception circumstances did not apply, and the best endeavours requirement was not met for 51 ICPs.	Moderate	Low	2	Identified
Identification of readings	9.1	3(3) Schedule 15.2	Ten CS files contained incorrect read types. Two ICPs did not have the correct switch read type recorded in SAP.	Moderate	Low	2	Identified
Meter data used to derive volume information	9.3	3(5) Schedule 15.2	Raw meter data is rounded upon receipt and not when volume information is created for IntelliHUB meters.	Moderate	Low	2	Investigating
Electricity supplied information provision to the reconciliation manager	11.3	15.7	Unmetered load volumes for four ICPs not included in electricity supplied report.	Moderate	Low	2	Investigating
Creation of submission information	12.2	15.4	Generation information not submitted for five ICPs with distributed generation present. Consumption information was not submitted for at least 22 ICPs which were supplied for one day before switching to an alternative trader.	Moderate	Low	2	Identified
Accuracy of submission information	12.7	15.12	Inaccurate submission as follows: <ul style="list-style-type: none"> <li>• five CS files contained inaccurate CS event readings resulting in under or over submission,</li> <li>• two ICPs did not have the agreed switch reading recorded in SAP, leading to incorrect submission information,</li> </ul>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<ul style="list-style-type: none"> <li>consumption apportioned incorrectly for disconnected ICP 0000010975HR5B6 with consumption recorded during the inactive period,</li> <li>IntelliHub does not provide raw meter data to replace estimates for periods greater than 15 days; the quantity of estimates remaining is unknown,</li> <li>Electricity Supplied report does not include unmetered load volumes, and</li> <li>generation information not submitted for five ICPs with distributed generation present.</li> </ul>				
Permanence of meter readings for reconciliation	12.8	4 of schedule 15.2	Permanent estimates applied when exceptional circumstances not proven for ten ICPs not read in the past eight months.	Strong	Low	1	Identified
Historical estimate process	12.11	4 and 5 Schedule 15.3	Historic estimate calculation incorrect for scenarios L (Network/GXP/Connection (POC) alters part way through a month.	Moderate	Low	2	Identified
Forward estimate process	12.12	6 Schedule 15.3	Submission accuracy not met for all consumption periods.	Moderate	Low	2	Investigating
Historical estimate reporting to RM	13.3	10 Schedule 15.3	The revision three historic estimate thresholds were not met for January 2022 to March 2022.	Moderate	Low	2	Identified
Future Risk Rating						58	

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
Validation between Salesforce, SAP, and registry static information	2.1	Develop a process to check Salesforce, SAP, and registry static information for consistency.
Increase the frequency of registry status updates	2.1	Processes should be updated to ensure compliance with registry event update timeframes. The registry status should be updated for any ICP which has undergone a status change for one full day or more. Registry updates should be completed within five business days of the event date.
Enter disconnection and reconnection boundary readings	2.1	Disconnection and reconnection boundary readings should be entered to ensure that consumption is apportioned to the correct dates by the reconciliation process. Once these readings are consistently entered, I recommend that report used to identify inactive consumption can be refined to use these reads.
Replacement reading data from IntelliHUB	2.1	Arrange for IntelliHUB to provide replacement data if it is obtained within 100 days of the reading date.
MEP arrangements	2.13	Review processes to ensure that ICPs do not switch in where there is no arrangement in place with the MEP.
Use of ICP Identifier	2.18	Make ICP available in the Globug application.
Revise the process for one day supply ICPs	4.3	Revise the process for one day supply ICPs to ensure that: <ul style="list-style-type: none"> <li>the switch event reading is actual, or the best estimate of consumption for the day of supply, and</li> <li>the average daily kWh reflects the average daily consumption for the day of supply where actual readings are available, or the incoming CS value.</li> </ul>
Training on manual generation of AN and CS files	4.3	Conduct training to improve the timeliness and accuracy of manually generated AN and CS files, including: <ul style="list-style-type: none"> <li>determining compliant AN proposed event dates and CS event dates,</li> <li>calculating average daily kWh, which should be the average daily consumption between the last two actual validated reads up to the last day of responsibility; if there are less than two actual readings available, the incoming CS value is expected to be applied,</li> <li>determining correct event readings and read types including providing actual readings where available, or the best estimate of consumption up to the end of the last day of supply,</li> <li>determining correct last actual read dates, which should be the date of the last actual reading during the period of supply, and</li> <li>processes to review and resolve all AN and CS related breach types on the switch breach history report.</li> </ul>
Identification of ICPs with potential distributed generation	6.1	Update the "ICPs with DG installed" report to include ICPs with installation type B or G and no I flow metering. Create a provisioning exception for any ICPs with installation type B or G and no I flow metering, to avoid switching in ICPs with potential distributed generation.
Review timeframes attempting to install AMI meters	6.8	Globug review its process of switching non-AMI metered ICPs or non-communicating ICPs to ensure either estimated invoicing occurs during the timeline to attempt to

Subject	Section	Recommendation
		install an AMI meter or resolve the AMI comms issue or ensure the timeline does not exceed one standard billing period for the customer.
Meter Read Frequency reporting	6.9	Review the requirements and selection parameters used in the meter read frequency reporting to ensure only valid ICPs are included in the report.
High consumption threshold	12.3	Globug considers a more appropriate ICP level consumption threshold in the AV-080 data creation process reflective of the size and type of customer.

## 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.

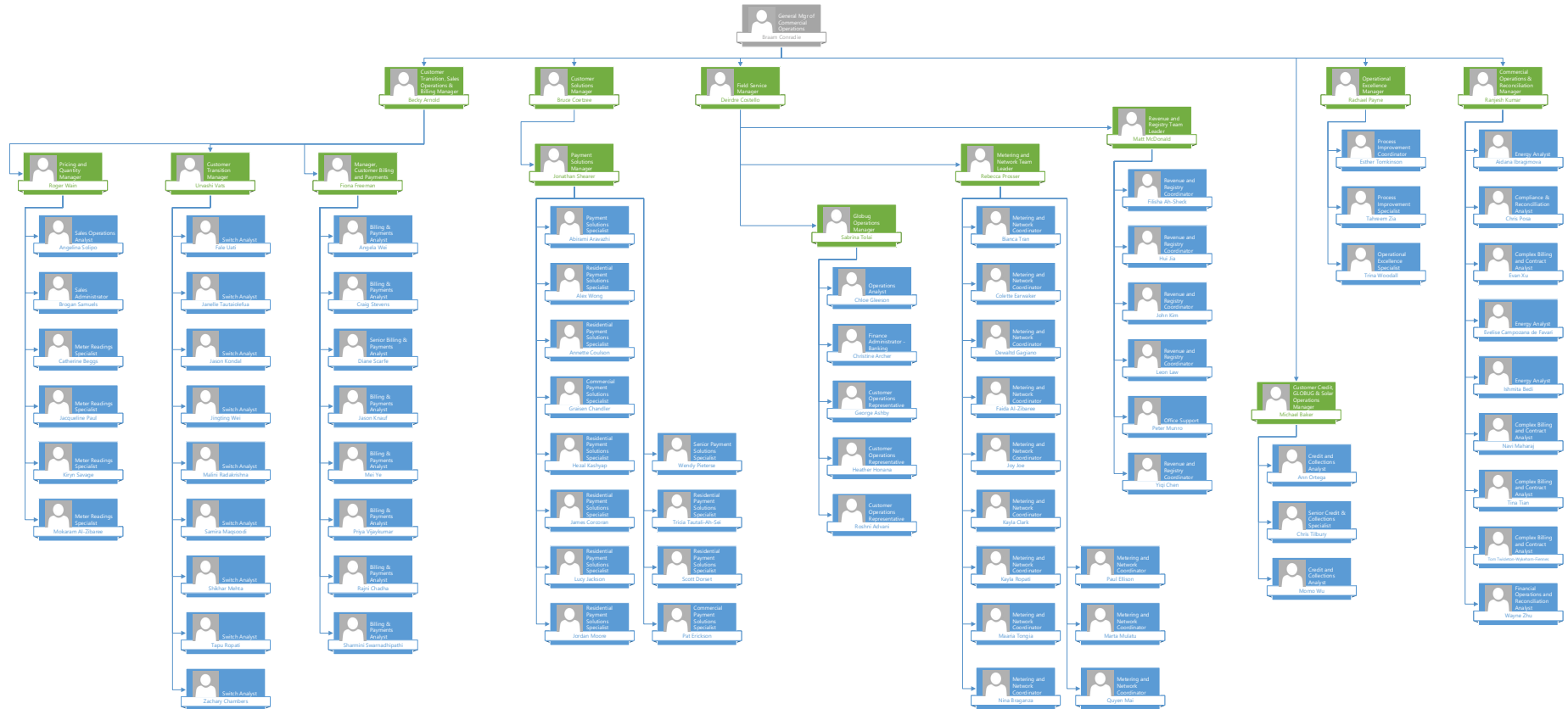
#### Audit commentary

Globug has no current exemptions relevant to this audit.



## 1.2. Structure of Organisation

Mercury provided their current organisational structure, which includes Globug:



### 1.3. Persons involved in this audit

Auditor:

Name	Company	Role
Tara Gannon	Veritek Limited	Lead auditor
Bernie Cross	Veritek Limited	Supporting auditor

Globug personnel assisting in this audit were:

Name	Title
Aidana Ibragimova	Energy Analyst
Chloe Gleeson	Operations Analyst
Chris Posa	Compliance Reconciliation Analyst
Christine Archer	Operations Analyst
Heather Honana	Customer Operations Representative
Ishmita Bedi	Energy Analyst
Janelle Tautaiolefua	Switch Analyst
Leon Law	Service Delivery Specialist
Mokaram Al-Zibaree	Meter Readings Specialist
Ranjesh Kumar	Commercial Operations & Reconciliation Manager
Roshni Advani	Customer Operations Representative
Sabrina Tolai	Globug Operations Manager
Urvashi Vats	Customer Transition Manager



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

The EA confirmed that there was one alleged breach relevant to the scope of the audit during the audit period.

Reference	Code section	Description	Outcome
2208GBUG1	Part 10 clause 10.33A (1) (a)	<p>An ICP was reconnected by Globug where they were not recorded as the trader on the registry.</p> <p>The existing trader (FOGY) disconnected their ICP for vacancy on 13 October 2021. Globug received a new customer application, reconnected the ICP and sent an NT TR on 13 October 2021. A NT MI should have been provided because the ICP had been vacant, and a new customer had moved in. FOGY initiated a withdrawal on 14 October 2021 because the wrong switch type was selected, which was accepted by Globug on 15 October 2021.</p> <p>Globug did not reissue an NT MI, and the ICP remained connected. FOGY followed up with Globug and advised that they would disconnect the ICP again if no response was received. FOGY completed this disconnection on 15 November 2021.</p> <p>Globug reconnected the ICP again on 16 November 2021 but did not send an NT. FOGY made further requests for an NT MI from Globug, which Globug responded to on 29 December 2021 saying that they were confirming the move in date with their customer before a request would be issued. No NT was received from Globug and the ICP eventually switched to CTCT effective from 15 February 2022.</p> <p>Following this alleged breach, Globug reviewed their process and training documentation to ensure compliance for future switches where reconnection is required.</p>	Fact finding is underway.

## 1.7. ICP Data

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

Metering Category	2022	2021	2020	2019	2018
1	21,335	21,481	22,362	25,046	26,739
2	0	0	0	0	0
3	0	0	0	0	0
4	0	0	0	0	0
5	0	0	0	0	0
9	0	14	0	0	3

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

### 1.8. Authorisation Received

Email authorisation was provided.

### 1.9. Scope of Audit

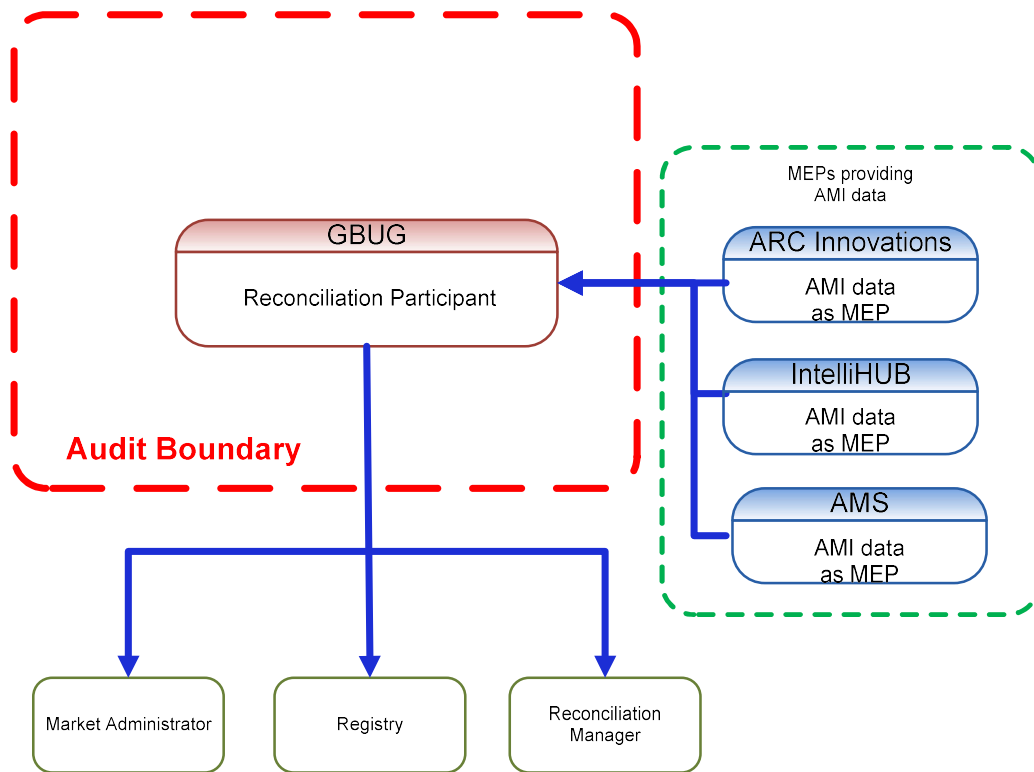
This Electricity Industry Participation Code Reconciliation Participant audit was performed at the request of Globug, to support their application for renewal of certification in accordance with clauses 5 and 7 of schedule 15.1. The audit was conducted in accordance with the Guideline for Reconciliation Participant Audits V 7.2.

The audit was carried out remotely via Teams from 21 to 24 November 2022.

Analysis was completed on:

- a registry list snapshot report as of 7 September 2022, and
- a registry list, AC020 report, and event detail report for 1 September 2021 to 7 September 2022.

The scope of the audit is shown in the diagram below, with the Globug audit boundary shown for clarity.



Globug stopped receiving AMI services from Arc part way through the audit period however they are shown in this diagram to reflect that services were provided for a portion of the audit period.

The table below shows the tasks under clause 15.38 of part 15, for which Globug requires certification. This table also lists MEPs who assist with these tasks.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs providing AMI data
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data	IntelliHUB (MTRX) - AMI estimates	IntelliHUB AMS ARC Innovations (up to 7 Sep 2022)
(c)(iii) - Creation and management of HHR and NHH volume information		
(d) – Calculation of ICP days		

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs providing AMI data
(da) - delivery of electricity supplied information under clause 15.7		
(db) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation		

ARC Innovations, AMS and IntelliHUB conduct AMI data collection as MEPs and not as agents to reconciliation participants, except for the AMI estimates that are sent from IntelliHUB. The IntelliHUB agent audit is expected to be submitted with this audit.

#### 1.10. Summary of previous audit

Globug provided a copy of their previous audit report conducted in November 2021 by Rebecca Elliot of Veritek Limited. The summary tables below show that some of the issues have been resolved and some are still existing. Further comment is made in the relevant sections of this report.

#### Table of non-compliance

Subject	Section	Clause	Non-Compliance	Status
Relevant information	2.1	10.6,11.2 & 15.2	<p>Some registry discrepancies.</p> <p>16 (two transfer and 14 switch move) ICPs sent with incorrect estimated reads.</p> <p>Credit disconnections not updated to the registry unless the duration is longer than one week.</p> <p>Consumption apportioned incorrectly for one of the five disconnected ICPs with consumption sampled.</p> <p>Consumption apportioned incorrectly for one of five disconnected ICPs where final reads were not gained on the date of disconnection.</p> <p>All corrections for the ten bridged ICPs sampled (of a possible 41 bridged meters) had not flowed through to submission resulting in 13,458 kWh of under submission.</p> <p>All corrections for the nine ICPs examined had not flowed through to submission resulting in 2,629 kWh of under submission.</p> <p>Consumption not submitted for one day of ownership for cancelled switches.</p> <p>IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date.</p>	Still existing

Subject	Section	Clause	Non-Compliance	Status
Electrical Connection of Point of Connection	2.11	10.33A	69 ICPs reconnected without metering being certified.	Still existing
Changes to registry information	3.3	10 of schedule 11.1	449 (11.66%) late status updates to active. 2,302 (52%) late status updates to inactive. 194 late trader updates. Three late ANZSIC code updates.	Still existing
ANZSIC code	3.6	9(1)(k) Schedule 11.1	12 of 23 (52%) non-residential codes were incorrect.	Still existing
Management of "inactive" status	3.9	19 Schedule 11.1	Credit disconnections not updated on the registry or SAP for each full day the ICPs are inactive.	Still existing
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	Incorrect AN code for seven ICPs. Three AN breaches.	Still existing
Losing trader must provide final information - standard switch	4.3	5 of schedule 11.3	Nine CS breaches. One E2 breach. Five WR breaches. Two transfer switches sent with the incorrect read. One ICP of the sample of five ICPs checked with the zero recorded as the average daily consumption sent with the incorrect average daily consumption. One ICP of the sample of five typical CS files checked sent with the incorrect average daily consumption.	Still existing
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	One RR breach for a transfer switch.	Still existing
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	Five of ten ICPs sampled (of a possible 12 ICPs) sent with an incorrect AN response code. Three AN breaches. Two CS breaches. 12 E2 breaches. 16 T2 breaches. 44 WR breaches.	Still existing



Subject	Section	Clause	Non-Compliance	Status
Losing trader provision of final information	4.10	11 Schedule 11.3	14 switch move ICPs sent with incorrect estimated reads.	Still existing
Gaining trader changes to switch meter reading - switch move.	4.11	12 Schedule 11.3	One of the four RRs issued was issued in error and was not supported by two actual reads. Seven RR breaches for switch moves. One AC breach for a switch move.	Still existing
Withdrawal of switch requests	4.15	17 & 18 of schedule 11.3	Five of the 20 NW files sampled were sent with the incorrect NW code. One of the three NWUA withdrawals sampled sent in error. 21 NA breaches. Four SR breaches. 15 AW breaches.	Still existing
Metering information	4.16	21 of Schedule 11.3	Two transfer switches sent with the incorrect read. 14 switch move ICPs sent with incorrect estimated reads.	Still existing
Electricity conveyed	6.1	10.13	Three ICPs with distributed generation present but export metering is present. Energy is not metered and quantified according to the code where meters are bridged.	Still existing
NHH meter reading application	6.7	6 Schedule 15.2	Two transfer switches sent with the incorrect read. 14 switch move ICPs sent with incorrect estimated reads.	Still existing
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	Exceptional circumstances not proven for 71 ICPs not read during period of supply.	Still existing
NHH meters interrogated annually	6.9	8(1) & (2) of schedule 15.2	Exceptional circumstances not proven for seven ICPs not read in the past 12 months	Still existing
Identification of readings	9.1	3(3) Schedule 15.2	Two transfer switches sent with the incorrect read.	Still existing
Meter data used to derive volume information	9.3	3(5) Schedule 15.2	Raw meter data is rounded upon receipt and not when volume information is created for IntelliHUB and ARC meters.	Still existing
Calculation of ICP days	11.2	15.6	Inaccurate ICP days were reported for one ICP.	Cleared
Creation of submission information	12.2	15.4	Generation information not submitted for three ICPs with distributed generation present.	Still existing

Subject	Section	Clause	Non-Compliance	Status
			Consumption information not submitted for one day for ICPs where Globug cannot supply, and then switch to an alternative trader or in most cases to Mercury.	
Allocation of submission information	12.3	15.5	One ICP recorded with the incorrect NSP.	Cleared
Accuracy of submission information	12.7	15.12	<p>Inaccurate submission as follows:</p> <ul style="list-style-type: none"> <li>• 16 (two transfer and 14 switch move) ICPs sent with incorrect estimated reads resulting in one day of consumption being pushed to the gaining trader (Mercury in most instances).</li> <li>• Consumption apportioned incorrectly for one of the five disconnected ICPs with consumption sampled.</li> <li>• Consumption apportioned incorrectly for one of five disconnected ICPs where final reads were not gained on the date of disconnection.</li> <li>• All corrections for the ten bridged ICPs sampled (of a possible 41 bridged meters) had not flowed through to submission resulting in 13,458 kWh of under submission.</li> <li>• All corrections for the nine ICPs examined had not flowed through to submission resulting in 2,629 kWh of under submission.</li> <li>• Two of the five ICPs with active vacant consumption incorrectly recorded as active from 21 July 2021 – 31 July 2021.</li> </ul> <p>Intellihub does not provide raw meter data to replace estimates for periods greater than 15 days. The quantify of estimates remaining is unknown.</p>	Still existing
Permanence of meter readings for reconciliation	12.8	4 of schedule 15.2	Permanent estimates applied when exceptional circumstances not proven for seven ICPs not read in the past 12 months	Still existing

### Table of recommendations

Subject	Section	Recommendation	Status
Relevant information	2.1	Review correction process and provide staff training to ensure these are processed correctly.	Adopted
Use of ICP identifier	2.18	Make ICP available in the Globug application.	Not adopted
ANZSIC codes	3.6	Check all non-residential ANZSIC coded ICPs six monthly to confirm their validity.	Not adopted

## 2. OPERATIONAL INFRASTRUCTURE

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

#### Code reference

Clause 10.6, 11.2, 15.2

#### Code related audit information

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

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

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

#### Audit observation

The processes to find and correct incorrect information was examined. The registry validation processes were examined in detail in relation to the achievement of this requirement.

The registry list and ACO20 reports were examined to identify any registry discrepancies, and to confirm that information was correct and not misleading.

#### Audit commentary

##### Registry data updates

Globug ICP static data is recorded in SalesForce and SAP.

For status updates, Globug issues disconnection and reconnection work orders to the MEPS. The MEPS provide daily files of completed disconnections and reconnections which are imported into SalesForce and update the status event date and status without user intervention. Reports are run to provide lists of ICPs with updated statuses to Mercury's operations team, who process the updates in SAP and on the registry. Disconnection and reconnection readings are not entered as part of this process.

- A report of reconnections to be processed is provided each Monday, and files of the status updates are uploaded to the registry and SAP by the Mercury Operations Team. A daily list of reconnections is provided showing the ICP and reconnection date only. These are manually updated in SAP and the registry by the Mercury Operations Team.
- A report of disconnections to be processed is provided and processed at the end of each week; and updated in SAP and the registry by the Mercury Operations Team.

Updates to inactive status may take up to a week to be processed in SAP and on the registry. Globug has raised ticket GLO-635 to investigate increasing the frequency of registry updates and ensure that any sites which are disconnected for more than 24 hours undergo a registry status update and that disconnection and reconnection reads are entered. I have raised recommendations to ensure visibility.

Description	Recommendation	Audited party comment	Remedial action
Increase the frequency of registry status updates	<p>Processes should be updated to ensure compliance with registry event update timeframes.</p> <p>The registry status should be updated for any ICP which has undergone a status change for one full day or more.</p> <p>Registry updates should be completed within five business days of the event date.</p>	<p>Globug will complete daily inactive status updates for all ICPs where disconnections and reconnections are not on same day as a part of our new process.</p> <p>Our new process includes improved reporting and an automation to increase frequency from weekly to daily.</p>	Identified
Enter disconnection and reconnection boundary readings	<p>Disconnection and reconnection boundary readings should be entered to ensure that consumption is apportioned to the correct dates by the reconciliation process.</p> <p>Once these readings are consistently entered, I recommend that report used to identify inactive consumption can be refined to use these reads.</p>	<p>Globug will complete daily inactive status updates for all ICPs where disconnections and reconnections are not on same day as a part of our new process.</p> <p>Our new process includes improved reporting and an automation to increase frequency from weekly to daily.</p>	Identified

Updates to trader information including profiles, ANZSIC codes, and unmetered load are rare because Globug only uses the RPS profile, ANZSIC codes are verified as part of the switch in process, and only four ICPs with unmetered load are supplied. Most trader updates are MEP nominations. A report identifying ICPs requiring MEP nominations is generated by Robee (Globug’s robot) as part of the provisioning process. The details are provided to the Mercury Operations Team who update SAP and the registry manually as the information is received.

**Registry data validation**

Meter numbers are checked against the registry weekly using the “accounts with wrong meter number report” which identifies meter number discrepancies between the registry and SAP. Discrepancies most commonly occur due to timing differences where meters are changed.

Robee completes overnight validation of switching/provisioning data and provides exception reports for review. These exceptions include addresses which may not be valid, business rule exceptions where the property is not compatible with Globug’s requirements and an MEP change may be required, potentially invalid ANZSIC codes, and ICPs switching in with disconnected statuses.

There is no full validation of registry static data against SAP, and/or SAP data against Salesforce. There is no automated interface between the systems, and consistency checking could help to detect potential data inaccuracies. Globug indicated in the last two audits that the operations team and the ICT team were working to deploy additional discrepancy reporting to identify salesforce/SAP/registry mismatches and increase the frequency of the reporting. I have repeated this recommendation below.

Description	Recommendation	Audited party comment	Remedial action
Validation between SalesForce, SAP, and registry static information	Develop a process to check SalesForce, SAP, and registry static information for consistency.	Process to check for consistency is currently in development. We are looking at building a report that highlights discrepancies between SAP, SalesForce and the Registry.	Identified

Analysis of the AC020 report and registry list found:

Issue	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	Comments
Active ICPs with cat 9 metering	-	15	-	-	2	Compliant.
Blank ANZSIC codes	-	-	-	-	-	Compliant.
ANZSIC "T999" not stated	-	-	-	-	-	Compliant.
ANZSIC "T994" don't know	-	-	-	-	-	Compliant.
Incorrect status 1,4 - Disconnected Vacant	1	-	-	-	103	A sample of five ICPs was checked, and one had an incorrect event date recorded. See <b>section 3.9</b> .
Incorrect status 1,8 - Disconnected at pole fuse	-	1	-	-	-	The two updates to disconnected at the pole fuse status were checked, and the status reason and event date were correct.
Incorrect status 1,7 - Disconnected AMI remote disconnection	2	122	-	3	705	A sample of five ICPs was checked, and the status reason and event date were correct. Two ICPs were not disconnected remotely but had 1,7 status applied. See <b>section 3.9</b> .
Incorrect status 1,9 - Disconnected due to meter disconnected	-	-	-	-	12	The two updates to disconnected due to meter disconnected status were checked, and the status reason and event date were correct.
Incorrect status 1,10 - Disconnected meter fuse box	-	-	-	-	1	There were no updates to disconnected due to Disconnected meter fuse box during the audit period.
Incorrect status 1,12 - New connection in progress	-	-	-	-	-	Globug does not complete new connections. None found in this audit.
ICPs with the incorrect active date recorded	6	-	-	-	-	A sample of 15 reconnections were checked, and six had incorrect status event dates recorded. See <b>section 3.8</b> .

Issue	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	Comments
AMI flag = No and HHR flag = No	26	164	103	77	106	The registry list recorded 26 ICPs which had AMI flag = N and HHR flag = N and no MEP nomination in progress. I checked all 26 and found: <ul style="list-style-type: none"> <li>• 14 ICPs had MEP nominations made and accepted and were awaiting meter asset data,</li> <li>• four ICPs were timing differences and were updated to AMI flag = Yes or HHR flag = Yes after the report was run, and</li> <li>• eight ICPs switched out after the report was run.</li> </ul>
Distributed Generation profile not recorded on the registry	5	3	-	-	-	Examination of the registry list with history identified five ICPs with distributed generation indicated by the distributor, which have RPS profile assigned and no I flow register. See <b>section 6.1</b> .

### Read and volume data accuracy

Some submission data accuracy issues were identified:

Accuracy issue	Report section(s)
ICP 0000010975HR5B6 was confirmed to have a small amount of genuine consumption (44 kWh) allocated to the incorrect consumption period. The registry records this as inactive from 11 August 2022 (Switch gain date) to 22 August 2022 but the submission was calculated across the entire read to read period 11 August 2022 to 1 September 2022. Because Globug's submission system assigns consumption volumes between actual reads irrespective of an ICPs status, this has resulted in some consumption being apportioned into incorrect consumption periods and the allocation of consumption across the inactive period resulted in an over reporting of retailer ICP days.  31 additional ICPs were identified in <b>section 11.2</b> where consumption volumes were apportioned across inactive periods.	3.9, 11.2, 12.7, 12.11
IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date. This is non-compliance because more accurate information is available but is not used.  This system limitation has been resolved by IntelliHUB since the previous audit and traders can now arrange with IntelliHUB actual data replacements up to 100 days.	12.7
The AV120 electricity Supplied report does not include unmetered load volumes.	11.3, 12.7
Generation information not submitted for five ICPs with distributed generation present.	6.1, 12.2, 12.7
Consumption information was not submitted for at least 22 ICPs which were supplied for one day before switching to an alternative trader, because Globug supplied the incoming CS read in the outgoing CS file rather than an actual read or the best estimate of consumption for the day supplied. The affected ICPs did not meet Globug's supply requirements, and the switches were turned down and switched out.	4.16, 12.2, 12.7

Five CS files contained incorrect CS event reads and were not withdrawn, leading to incorrect submission information.	4.3, 4.10, 12.7
Two ICPs did not have the agreed switch reading recorded in SAP, leading to incorrect submission information.	4.11, 12.7

Description	Recommendation	Audited party comment	Remedial action
Replacement reading data from IntelliHUB	Arrange for IntelliHUB to provide replacement data if it is obtained within 100 days of the reading date.	IntelliHUB has confirmed that Globug is currently set at 60 days.	Investigating

I checked a sample of NHH corrections as described in the table below:

Defective meters	<p>The process is described in <b>section 8.1</b>. I checked ten examples where a meter was reported as defective:</p> <ul style="list-style-type: none"> <li>eight were comms faults where the meters for four ICPs were replaced as part of the comms investigation and all volume was reported as part of the meter change process, and</li> <li>two were bridged meters where the volumes were appropriately estimated, and this volume flowed through to submission.</li> </ul>
Incorrect multipliers	Globug does not have any ICPs with multipliers.
Bridged meters	<p>Estimated consumption for the bridged period is based on the current average daily usage for the customer multiplied by the number of days bridged. The estimated consumption is provided to Mercury, who are expected to follow a meter reprogram process. The bridged meter is expected to be closed on an estimated read which captures the estimated consumption during the bridged period, and then restarted on the meter read that applied when the meter was unbridged.</p> <p>37 ICPs were bridged during reconnection. I reviewed ten examples of bridged meters with the largest volumes. Each example had a worksheet to estimate the consumption during the bridged period and these were confirmed to be calculated correctly.</p>
Active vacant consumption	A list of 25 ICPs with vacant actual consumption was provided and consumption volumes were found to be included in the submission process.
Consumption while inactive	<p>Where disconnected ICPs have consumption, SAP submits this consumption automatically.</p> <ul style="list-style-type: none"> <li>A list of 43 ICPs with inactive consumption was provided. A sample of five ICPs with inactive consumption were reviewed. Four were confirmed not to have any genuine consumption as the inactive consumption was estimated. ICP 0000010975HR5B6 was confirmed to have a small amount of genuine consumption (44 kWh). The registry records this as inactive from 11 August 2022 (Switch gain date) to 22 August 2022 but the submission was for the period 11 August 2022 to 31 August 2022.</li> </ul>
Unmetered load corrections	No unmetered load corrections were identified during the audit period.

## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.1 With: 10.6,11.2 & 15.2  From: 01-Sep-21 To: 07-Sep-22	Some registry discrepancies. Some submission accuracy issues. Potential impact: Medium Actual impact: Medium Audit history: Multiple Controls: Moderate Breach risk rating: 4		
Audit risk rating	Rationale for audit risk rating		
<b>Medium</b>	The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.  The audit risk rating is assessed to be medium due to the potential kWh of under submission.		
Actions taken to resolve the issue		Completion date	Remedial action status
<b>Registry discrepancies:</b> Registry updates frequency for disconnections and reconnections over 24hours will be moved to daily. This process will also be automated and is currently in development.  We will review the current process and build improved reporting where required for both: <ul style="list-style-type: none"> <li>- Disconnection and reconnection boundary readings</li> <li>- Salesforce, SAP, and registry static information for consistency.</li> </ul> Report building may take some time to scope out with our developers.  <b>Submission accuracy issues:</b> IntelliHUB has confirmed that Globug is currently set at 60 days. So, if a meter stop communicating for 59 days and starts on communicating on the 60th day data will be sent through this as replacement data.		March 2023          June 2023	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As above.		As above	



## 2.2. Provision of information (Clause 15.35)

### Code reference

Clause 15.35

### Code related audit information

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

### Audit observation

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

### Audit commentary

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

### Audit outcome

Compliant

## 2.3. Data transmission (Clause 20 Schedule 15.2)

### Code reference

Clause 20 Schedule 15.2

### Code related audit information

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

### Audit observation

Meter reads used to produce Globug electricity reconciliation reports and as billed data they are imported into SAP. I reviewed the method to receive meter reading information and traced a sample of reads for two ICPs per provider from the source files to SAP.

### Audit commentary

Read data is transmitted to Globug via FTP for IntelliHUB and AMS. These methods ensure the security and integrity of the data. I saw evidence that the data transfers are via FTP.

IntelliHUB provides readings for their own meters. AMS provides reads for their own meters. I traced a typical sample of two meter reads each for AMS and IntelliHUB from the source files to SAP. Reads matched in all cases.

### Audit outcome

Compliant

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

### Code reference

Clause 21 Schedule 15.2

### Code related audit information

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

*The audit trail must include details of information:*

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

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

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

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

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

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

### Audit observation

A complete audit trail was checked for all data gathering, validation and processing functions. I reviewed audit trails for a small sample of events. Large samples were not necessary because audit trail fields are expected to be the same for every transaction of the same type.

### Audit commentary

A complete audit trail was viewed for all data gathering, validation and processing functions. The logs of these activities for Globug include the activity identifier, date and time and an operator identifier.

### Audit outcome

Compliant

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

### Code reference

*Clause 10.4*

### Code related audit information

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

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

### Audit observation

I reviewed Globug's current terms and conditions.

### Audit commentary

Globug's current terms and conditions with their customers includes consent to access for authorised parties for the duration of the contract.

### Audit outcome

Compliant

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

### Code reference

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

### Code related audit information

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

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

*The trader must use its best endeavours to provide access:*

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

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

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

### Audit observation

I reviewed Globug's current terms and conditions and discussed compliance with these clauses.

### Audit commentary

Globug's contract with their customers includes consent to access for authorised parties for the duration of the contract. Globug confirmed that they have used best endeavours to arrange access for other parties when requested. This typically involves trying to contact the customer by phone, text, mail and/or a site visit to disconnect if access is repeatedly refused.

### Audit outcome

Compliant

## 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**

A registry list file was reviewed to confirm that all metered ICPs had an MEP recorded.

#### **Audit commentary**

All metered ICPs had an MEP recorded. Globug does not deal with new connections, has only category 1 metering installations, and there are no metering installations where loss calculations occur.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 11.15B*

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

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

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

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

#### **Audit observation**

I reviewed Globug's current terms and conditions.

#### **Audit commentary**

Globug's terms and conditions contain the appropriate clauses to achieve compliance with this requirement.

## Audit outcome

Compliant

## 2.9. Connection of an ICP (Clause 10.32)

### Code reference

*Clause 10.32*

### Code related audit information

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

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

### Audit observation

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

### Audit commentary

Globug has not dealt with any new connections, and do not intend to.

Review of the AC020 report and registry list found all active ICPs had an MEP recorded and metering category 1.

## Audit outcome

Compliant

## 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

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

### Audit commentary

Globug has not dealt with any new connections, and do not intend to.

## Audit outcome

Compliant

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

### Code reference

Clause 10.33A(1)

### Code related audit information

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

- for a point of connection to the grid – the grid owner has approved the connection
- for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection.
- for a point of connection that is an ICP, but is not as NSP:
  - o the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within 2 business days of electrical connection
  - o if the ICP has metered load, 1 or more certified metering installations are in place
  - o if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the electrical connection.

### Audit observation

Processes were examined in detail to evaluate the strength of controls.

The AC020 reports were examined to confirm process compliance and that controls are functioning as expected.

### Audit commentary

#### New Connections

Globug has not dealt with any new connections, and do not intend to.

#### Reconnections

Globug customers are required to have AMI metering installed. A meter change is expected to be arranged on switch in if a customer has a non-AMI meter. The registry list recorded 26 ICPs which had AMI flag = N and HHR flag = N and no MEP nomination in progress. I checked all 26 and found:

- 14 ICPs had MEP nominations made and accepted and were awaiting meter asset data,
- four ICPs were timing differences and were updated to AMI flag = Yes or HHR flag = Yes after the report was run, and
- eight ICPs switched out after the report was run.

Analysis of the AC020 report identified that 45 ICPs which did not have their meters certified within five business days of reconnection. I checked the five oldest (which all had interim certification which expired on 1 April 2015) and five certified 50-150 business days after event and found that certification was delayed because:

- certification was completed as part of a meter replacement post reconnection,
- there were delays in accessing the meter because the customer was unavailable, or
- delays in replacing the meter because the customer needed to complete work on the installation.

#### Bridged meters

37 ICPs were bridged during reconnection and were recertified on un-bridging.

### Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.11 With: 10.33A  From: 01-Sep-21 To: 07-Sep-22	45 ICPs reconnected without metering being certified.  Potential impact: Low  Actual impact: Low  Audit history: Three times  Controls: Moderate  Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
<b>Low</b>	The controls are rated as moderate as uncertified meters are replaced with AMI meters, but this can sometimes take more than five business days from reconnection to be completed.  The audit risk rating is low because although there is a higher possibility of inaccurate metering, there were only 45 ICPs affected.	
Actions taken to resolve the issue	Completion date	Remedial action status
This non-compliance is due to our high dependency for the MEP to ensure meters are certified within five business days of reconnection. We will continue to work alongside our MEPs and provide them with regular reporting for investigations. Our confidence in this process is high with a 35% decrease in number of uncertified ICPs reconnected from last year (69 uncertified ICPs reconnected, 2021 Audit)	22 Feb 2023	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
To mitigate any further issues arising we will continue to work alongside our MEPs to ensure timely meter certification by: <ul style="list-style-type: none"> <li>- Collating the weekly reports for meter investigations and provide feedback when necessary.</li> <li>- Reiterate avenues we can offer to MEPs in cases where customer cannot be contacted.</li> </ul>	Ongoing	

## 2.12. Arrangements for line function services (Clause 11.16)

### Code reference

Clause 11.16

### Code related audit information

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

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

**Audit observation**

The process to ensure an arrangement is in place before trading commences on a network was examined. The registry list with history was reviewed to identify networks which Globug traded on during the audit period.

**Audit commentary**

Globug did not begin trading on any new networks during the audit period, and in previous audits demonstrated the existence of either a UoSA or other trading arrangement for all the networks they trade on.

**Audit outcome**

Compliant

**2.13. Arrangements for metering equipment provision (Clause 10.36)**

**Code reference**

*Clause 10.36*

**Code related audit information**

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

**Audit observation**

The process to ensure an arrangement is in place with the metering equipment provider before an ICP can be created or switched in was checked. The registry list with history was reviewed to identify MEPS used by Globug during the audit period.

**Audit commentary**

Robee completes overnight validation of switching/provisioning data and provides exceptions for review, including ICPs where the metering is not compatible with Globug’s requirements, and an MEP change may be required. A new MEP is typically nominated when the ICP switches in.

The exception process does not prevent ICPs where there is no arrangement with the MEP from switching in, and Globug supplied ICP 0000650671TP122 with TPCO as MEP for one day during the audit period where no arrangement was in place. The ICP switched in on 30 May 2022, and when Globug was unable to change the MEP, they arranged for the ICP to be switched out to MEEN effective from 31 May 2022.

Description	Recommendation	Audited party comment	Remedial action
MEP arrangements	Review processes to ensure that ICPs do not switch in where there is no arrangement in place with the MEP.	Globug ICP checker logic now includes provisioning exceptions to prevent ICPs with no MEP arrangements to switch in.  This is currently in the testing stages with our developer.	Identified

In previous audits, Globug confirmed that they have arrangements in place with all other MEPS that manage metering in relation to their customer base.



## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.13 With: 10.36  From: 30-May-22 To: 30-May-22	ICP 0000650671TP122 was supplied on 30 May 2022 and there was no arrangement in place with the MEP.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as strong because this appears to be an isolated exception. The audit risk rating is low because the ICP was supplied for one day.		
Actions taken to resolve the issue		Completion date	Remedial action status
Globug ICP checker logic now includes provisioning exceptions to prevent ICPs with no MEP arrangements from switching in.  The ICP checker logic is currently being tested by our developers, and we are expecting it to go live within the next month if testing runs smoothly.		March 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The ICP logic will be reviewed and updated when needed and more frequently.		Ongoing	

### 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

The process for reconnecting ICPs in the process of switching in was examined. Traders are only able to update ICP status for event dates where they are responsible for the ICP on the registry.

#### Audit commentary

Reconnections are usually not completed until the switch has completed. One alleged breach was recorded for reconnecting an ICP where Globug was not the trader, and not restoring the disconnection when the switch was withdrawn.

Reference	Code section	Description	Outcome
2208GBUG1	Part 10 clause 10.33A (1) (a)	<p>An ICP was reconnected by Globug where they were not recorded as the trader on the registry.</p> <p>The existing trader (FOGY) disconnected their ICP for vacancy on 13 October 2021. Globug received a new customer application, reconnected the ICP and sent an NT TR on 13 October 2021. A NT MI should have been provided because the ICP had been vacant, and a new customer had moved in. FOGY initiated a withdrawal on 14 October 2021 because the wrong switch type was selected, which was accepted by Globug on 15 October 2021.</p> <p>Globug did not reissue an NT MI, and the ICP remained connected. FOGY followed up with Globug and advised that they would disconnect the ICP again if no response was received. FOGY completed this disconnection on 15 November 2021.</p> <p>Globug reconnected the ICP again on 16 November 2021 but did not send an NT. FOGY made further requests for an NT MI from Globug, which Globug responded to on 29 December 2021 saying that they were confirming the move in date with their customer before a request would be issued. No NT was received from Globug and the ICP eventually switched to CTCT effective from 15 February 2022.</p> <p>Following this alleged breach, Globug reviewed their process and training documentation to ensure compliance for future switches where reconnection is required.</p>	Fact finding is underway.

#### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 2.14</p> <p>With: 10.33A (1) (a)</p> <p>From: 13-Oct-21</p> <p>To: 14-Feb-22</p>	<p>Alleged breach 2208GBUG1 for reconnecting an ICP where Globug was not the trader, and not restoring the disconnection when the switch was withdrawn.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are rated as moderate. This appears to be an isolated exception but was not resolved by Globug when they were repeatedly approached by the

	<p>other trader. Globug has reviewed their process and training documentation to ensure compliance for future switches where reconnection is required.</p> <p>The impact is low. The other trader has borne the cost of re-disconnecting the ICP, consumption for the periods where Globug had reconnected the ICP before it switched out, and staff time spent following up with Globug and raising the alleged breach.</p>	
<b>Actions taken to resolve the issue</b>	<b>Completion date</b>	<b>Remedial action status</b>
Staff training provided and process review was for frontline, Globug Operations and Switching team.	January 2023	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
Training documents have been updated and continuous coaching provided to staff.	Ongoing	

## 2.15. Electrical disconnection of ICPs (Clause 10.33B)

### Code reference

*Clause 10.33B*

### Code related audit information

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

### Audit observation

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

### Audit commentary

Globug will only initiate disconnection for ICPs that they are responsible for.

### Audit outcome

Compliant

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

### Code reference

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

### Code related audit information

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

- *reset a load control switch, bridge or 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**

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

A sample of disconnections, reconnections, additions of export metering, and bridged meters were checked for compliance.

#### **Audit commentary**

Globug issues field services jobs for activities which could result in seals being removed or broken to the MEP. If access cannot be obtained to complete the work, a job would be issued to Wells to disconnect the ICP at the pole and/or the ICP would be switched to MEEN.

Once the work is completed the paperwork is returned and Globug uses this information to confirm the correct ICP attributes including status and profile, and update Salesforce, SAP, and the registry.

Where Globug finds that seals have been removed or broken by someone other than the MEP, they raise a job for the MEP to check and reseal the meter. Globug provided seven examples where meters had been damaged or tampered with and the MEP attended to replace and reseal the meter.

The majority of Globug's reconnections and disconnections are done remotely.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 10.33C and 2A of Schedule 15.2*

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

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

- *the MEP is unable to remotely electrically connect the ICP*
- *the MEP cannot repair a fault with the meter due to safety concerns*
- *the consumer will likely be without electricity for a period which would cause significant disadvantage to the consumer*

*If the trader bridges a meter, the trader must:*

- *determine the quantity of electricity conveyed through the ICP for the period of time the meter was bridged*
- *submit that estimated quantity of electricity to the reconciliation manager*

- *within 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**

The process for bridging meters was discussed and a sample of bridged meters were reviewed.

#### **Audit commentary**

Bridged meters are notified either through returned work completion paperwork or in the case of recently switch gained ICPs via emails from the AMI MEPs. Globug reviews a weekly report of ICPs with actual reads and no consumption for Metrix and NGCM meters, which also sometimes identifies ICPs with bridged meters.

Globug only allows meters to be bridged where an urgent reconnection is required, and it is not possible to reconnect without bridging the meter. When an onsite reconnection is requested for an AMI meter, the technician will call the MEP while on site to attempt a soft reconnection, and only bypasses the meter if that fails. A job is raised to un-bridge the meter as soon as possible.

37 incidences of bridged meters were recorded by Globug during the audit period and a sample of ten were reviewed to confirm that a reasonable estimation of the unmeasured volume was calculated correctly. In all ten cases affected periods were correctly identified and a suitable daily average consumption used to calculate a reasonable estimation of consumption.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 11.30*

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

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

#### **Audit observation**

Globug is prepaid service offering so invoices are not produced as such. The Globug application was reviewed.

#### **Audit commentary**

The customer's ICP number is not visible in the application but is present when they download a budget report from the website. I recommend that the ICP number is made visible within the application.

Description	Recommendation	Audited party comment	Remedial action
Use of ICP Identifier	Make ICP available in the Globug application.	We have raised a ticket to confirm whether we can make this change to our app, if there are no issues we will be able to implement by April 2023.	Investigating

#### Audit outcome

Compliant

### 2.19. Provision of information on dispute resolution scheme (Clause 11.30A)

#### Code reference

Clause 11.30A

#### Code related audit information

*A retailer must provide clear and prominent information about Utilities Disputes:*

- *on their website*
- *when responding to queries from consumers*
- *in directed outbound communications to consumers about electricity services and bills.*

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

#### Audit observation

The process to ensure that information on Utilities Disputes is provided to customers was discussed, and a sample of communications were reviewed to determine compliance.

#### Audit commentary

Clear and prominent information on Utilities Disputes is provided:

- in Globug's terms and conditions,
- on Globug's website,
- as part of the interactive call recording for inbound customer enquiries,
- as part of the letterhead used for outbound letters, and
- as part of the email footer for outbound emails.

#### Audit outcome

Compliant

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

#### Code reference

Clause 11.30B

#### Code related audit information

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

- *on their website*
- *in outbound communications to residential consumers about price and service changes*

- *to residential consumers on an annual basis*
- *in directed outbound communications about the consumer's bill.*

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

#### **Audit observation**

The process to ensure that information on Powerswitch is provided to customers was discussed, and a sample of communications were reviewed to determine compliance.

#### **Audit commentary**

Clear and prominent information on Powerswitch is available on Globug's website.

Price and service changes are provided by letter each April, and information on Powerswitch is included in a special version of the letterhead used for these letters. These letters also meet the requirement to provide annual notification about Powerswitch.

Because Globug supplies pre-pay ICPs, customers are not billed.

#### **Audit outcome**

Compliant

### 3. MAINTAINING REGISTRY INFORMATION

#### 3.1. Obtaining ICP identifiers (Clause 11.3)

##### Code reference

Clause 11.3

##### Code related audit information

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

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

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

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

##### Audit observation

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

##### Audit commentary

Globug has not dealt with any new connections, and do not intend to.

##### Audit outcome

Compliant

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

##### Code reference

Clause 11.7(2)

##### Code related audit information

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



### Audit observation

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

### Audit commentary

Globug has not dealt with any new connections, and do not intend to.

### Audit outcome

Compliant

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

### Code reference

*Clause 10 Schedule 11.1*

### Code related audit information

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

### Audit observation

The process to manage status changes is discussed in detail in **sections 3.8** and **3.9** below. The process to manage MEP nominations and trader updates was discussed.

The AC020 report was reviewed. A sample of late status updates, trader updates, and MEP nominations were checked as described in the audit commentary.

### Audit commentary

The AC020 trader compliance report was reviewed to determine the timeliness of registry updates.

### Status updates

For status updates, Globug issues disconnection and reconnection work orders to the MEPs. The MEPs provide daily files of completed disconnections and reconnections which are imported into Salesforce to update the status event date and status without user intervention. Reports are run to provide lists of ICPs with updated statuses to Mercury's operations team, who process the updates in SAP and on the registry. Readings are not routinely entered as part of the disconnection and reconnection process.

- A report of reconnections to be processed is provided each Monday, and files of the status updates are uploaded to the registry and SAP by the Mercury Operations Team. A daily list of reconnections is provided showing the ICP and reconnection date only. These are manually updated in SAP and the registry by the Mercury Operations Team.
- A report of disconnections to be processed is provided and processed at the end of each week; and updated in SAP and the registry by the Mercury Operations Team.

Updates to inactive status may take up to a week to be processed in SAP and on the registry. Globug has raised ticket GLO-635 to investigate increasing the frequency of registry updates and a recommendation to continue with this is made in **section 2.1**.

The timeliness of status updates to active (for reconnections) is set out in the table below.

Event	Year	ICPs notified greater than 5days	Average notification days	Percentage compliant
Active status updates	2018	134	3.2	90%
	2019	463	4	90%
	2020	920	6.5	80.38%
	2021	449	3.91	88.34%
	<b>2022</b>	<b>391</b>	<b>4.44</b>	<b>88.03%</b>

301 late updates were made within ten business days of the event date, and 370 were within 30 business days of the event date. The latest update was 681 business days after the event date. I checked the 15 latest updates and found:

- 11 were corrections to active status after missed updates, registry mismatch or consumption on inactive sites was identified; most of these were completed as part of historic data cleansing when improved monitoring was put in place in August 2022,
- two were delayed by backdated switches in, and
- two were delayed because switching errors needed to be cleared in Salesforce before the status update could be completed.

Six of the updates contained some incorrect information, which is recorded as non-compliance in **section 3.8**.

The timeliness of status updates to inactive (for disconnections) is set out in the table below.

Event	Year	ICPs notified greater than 5days	Average notification days	Percentage compliant
Inactive status updates	2018	817	6.1	49.7%
	2019	2,876	7	42.7%
	2020	2,883	11	42.2%
	2021	2,302	7.03	47.39%
	<b>2022</b>	<b>2,255</b>	<b>6.75</b>	<b>40.41%</b>

1,974 late updates were made within ten business days of the event date, and 2,251 were within 30 business days of the event date. The latest update was 733 business days after the event date. I checked the five latest (or all late) updates per status reason code and found:

Disconnection reason	Findings
1,4 Electrically disconnected vacant property	Three updates were backdated due to late notification that the ICP was disconnected by the previous trader, or late confirmation that the ICP had been disconnected by the MEP. Two updates were delayed by registry updates only occurring weekly.

Disconnection reason	Findings
1,6 Electrically disconnected ready for Decommissioning	Four updates were backdated due to late notification from the network, and the other was a correction following confirmation of a different disconnection date.
1,7 Electrically disconnected remotely by AMI meter	The five late updates checked were completed in January 2022 and were delayed by reduced staffing levels over the Christmas – New Year period. Additional staff will work over this year’s holiday period to prevent recurrence of this issue.
1,8 Electrically disconnected at pole fuse	There was one late update due to late notification that the ICP had been disconnected.
1,9 Electrically disconnected due to meter disconnected	There was one late update due to late notification that the ICP had been disconnected.

One of the updates contained some incorrect information, which is recorded as non-compliance in **section 3.9**.

#### Trader updates

Trader updates are completed manually on the registry. Updates to profiles, ANZSIC codes and unmetered load are rare because Globug only uses the RPS profile, ANZSIC codes are verified as part of the switch in process, and only four ICPs with unmetered load are supplied. Most trader updates are MEP nominations. A report identifying ICPs requiring MEP nominations is generated by Robee as part of the provisioning process. The details are provided to the Mercury Operations Team who update SAP and the registry as the information is received.

The timeliness of trader updates is set out in the table below.

Event	Year	ICPs notified greater than 5days	Average notification days	Percentage compliant
Trader updates	2020	62	2	93.12%
	2021	194	2.25	89.66%
	<b>2022</b>	<b>42</b>	<b>1.78</b>	<b>91.98%</b>

All of the late updates were indicated to be MEP nominations. 29 late updates were made within ten business days of the event date, and 38 were within 30 business days of the event date. The latest update was 49 business days after the event date. I checked the 15 latest updates, including all more than ten business days after the event and found:

- eight were delayed because the ICP had not been set up by Globug in SAP on switch in, and this needs to be completed before the MEP is nominated by Mercury’s operations team,
- two were corrections to previous MEP nominations, including one where an MEP switch had occurred prior to the ICP switching to Globug,
- three were delayed by backdated withdrawals,
- one was delayed because of reduced staff levels over the Christmas 2021 - New Year 2022 holiday period, and
- one was delayed because Globug needed the MEP to reverse their events before a backdated nomination could be completed.

The trader updates contained correct information.

The AC020 also identified three switched in ICPs where the ANZSIC code was not populated within 20 business days. All three had backdated CS files, and the ANZSIC codes were updated by Globug within one day of switch in.

Description	Recommendation	Audited party comment	Remedial action
Set up of new Globug ICPs in SAP on switch in	Ensure that ICPs are promptly set up in SAP on switch in, so that any subsequent registry updates required can be completed promptly.	Staff training has been provided and a review of the current process documents has been completed to ensure that updates are done promptly. We have an automated process to setup ICPs in SAP on daily basis. Any exceptions arising from there are completed on a daily basis.	Identified

**Audit outcome**

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.3</p> <p>With: 10 Schedule 11.1</p> <p>From: 01-Sep-21</p> <p>To: 07-Sep-22</p>	<p>391 late status updates to active.</p> <p>2,255 (52%) late status updates to inactive.</p> <p>42 late trader updates.</p> <p>Three late ANZSIC code updates for new switch ins.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>The controls are rated as moderate overall, but the weekly processing of disconnection requests is impacting the timeliness of these updates to the registry.</p> <p>The audit risk rating is assessed to be low as submission occurs regardless of the ICP status, but this will affect ICP days and line charge billing.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p><b>391 late status updates to active.</b></p> <p><b>2,255 (52%) late status updates to inactive.</b></p> <p>Globug is working on new report to improve registry status updates for some time now. However, we have made progress and are now in the development stage of building this report and automating the process.</p>		March 2023	Identified

<p>This will coincide with our plans in 2.1 – where registry updates will be daily using an automated system.</p> <p><b>42 late trader updates.</b></p> <p>We will continue to look monitor and improve our timeliness of trader updates. With a 78.35% decrease in numbers of late trader updates from last year (194 late trader updates, 2021 Audit) we are confident in our current process.</p> <p><b>Three late ANZSIC code updates for new switch ins.</b></p> <p>Staff training will be provided and a review of the current process documents to ensure that updates are done promptly.</p>	<p>Ongoing</p> <p>January 2023</p>	
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
As above.	As above.	

### 3.4. Trader responsibility for an ICP (Clause 11.18)

#### Code reference

*Clause 11.18*

#### Code related audit information

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

*A trader ceases to be responsible for an ICP if:*

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

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

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

#### Audit observation

The connection, MEP nomination and decommissioning processes were reviewed, and the registry list and audit compliance reports were examined to confirm process compliance. MEP nominations and decommissioned ICPs were examined.

#### Audit commentary

#### Retailers Responsibility to Nominate and Record MEP in the Registry

Review of the AC020 report and registry list found all active ICPs had an MEP recorded and metering category 1. The registry list recorded 26 ICPs which had AMI flag = N and HHR flag = N and no MEP nomination in progress. I checked all 26 and found:

- 14 ICPs had MEP nominations made and accepted and were awaiting meter asset data,
- four ICPs were timing differences and were updated to AMI flag = Yes or HHR flag = Yes after the report was run, and
- eight ICPs switched out after the report was run.

A report identifying ICPs requiring MEP nominations is generated by Robee as part of the provisioning process. The details are provided to the Mercury Operations Team who update SAP and the registry as the information is received.

None of the 548 MEP nominations issued were rejected. The Mercury Operations Team runs a monthly MEP nominations query for Globug ICPs which identifies MEP nominations which have been rejected or not had a response for three months, which are investigated and reversed if necessary.

### **ICP Decommissioning**

Globug continues with their obligations under this clause. ICPs that are vacant and active, or inactive are still maintained in SAP.

In all cases, an attempt is made to read the meter at the time of removal and if this is not possible then the last actual meter reading is used. This last actual reading is normally the one taken at the time of electrical disconnection. The Mercury field services team manage this process on behalf of Globug and they advise the MEP responsible that a site is to be decommissioned.

A sample of ten ICPs was examined which confirmed an attempt to read the meter was made at the time of removal.

### **Audit outcome**

Compliant

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

### **Code reference**

*Clause 9 Schedule 11.1*

### **Code related audit information**

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

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

*The trader must provide information specified in (a) to (j) above within 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**

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

#### **Audit commentary**

Globug has not dealt with any new connections, and do not intend to. The AC020 report did not record any data discrepancies relating to new ICPs.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 9 (1(k) of Schedule 11.1*

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

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

#### **Audit observation**

The process to capture and manage ANZSIC codes was examined. The registry list and AC020 reports were reviewed and ANZSIC codes were checked for a sample of ICPs to determine compliance.

#### **Audit commentary**

The process to capture and manage ANZSIC codes was examined. The registry list and AC020 reports were reviewed and ANZSIC codes were checked for a sample of ICPs to determine compliance.

#### **Audit commentary**

Prior to switch in, the sales team verifies the ANZSIC code using information from the registry, google and the ICP checker. Robee identifies non-residential ANZSIC codes as part of the provisioning process and creates an exception for the Operations Team, who review the code and adjust it as necessary.

The Mercury Operations Team checks for any missing or “T9”- unknown ANZSIC codes bi-monthly, and any exceptions are passed to Globug to investigate. There have not been any recent instances of ICPs with T9 ANZSIC codes.

The validity of ANZSIC codes was checked using the AC020 report. No ICPs had blank or unknown (T99 series) ANZSIC codes, and no ICPs have a meter category of two or higher.

Globug mainly deals with residential customers. 46 active ICPs (0.2%) have non-residential ANZSIC codes, and 21,289 (99.8%) have residential ANZSIC codes. I checked all 46 ICPs with non-residential ANZSIC codes and a random sample of 29 ICPs with residential ANZSIC codes by comparing them to Google streetview and the registry property name information. Where the correct code could not be confirmed I checked the customer information held by Globug against the ANZSIC code. I found 18 (39.1%) of the 46 ICPs with a non-residential code were incorrect, and they were all correctly updated to residential during the audit.

The previous audit recommended that a 6-monthly check is undertaken of all non-residential coded ICPs is undertaken to confirm their validity, but this has not been adopted.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.6 With: 9(1)(k) Schedule 11.1  From: 07-Sep-22 To: 07-Sep-22	18 (39.1%) of the 46 ICPs with a non-residential code were incorrect, and they were all correctly updated to residential during the audit.  Potential impact: Low  Actual impact: Low  Audit history: Twice previously  Controls: Strong  Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as strong overall as this is checked as ICPs join Globug. The error rate appears to be higher for non-residential ANZSIC codes, which apply to only 0.2% of active Globug ICPs.  The audit risk rating is assessed to be low as this field is a static data table and has no direct impact on reconciliation.		
Actions taken to resolve the issue		Completion date	Remedial action status
Affected ICPs have been corrected.		December 2022	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
We will complete a Bi-yearly review on non-residential ANZSIC. Reporting will be reviewed and developed to capture non-residential ICPs. Process documents will be created and added to training documents to ensure that this process is continuous.		June 2023	

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

#### Code reference

Clause 9(1)(f) of Schedule 11.1

#### Code related audit information

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

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

#### Audit observation



The process to manage unmetered load was examined. The registry list and AC020 reports were examined to determine compliance.

#### Audit commentary

Globug supplies four ICPs with shared unmetered load, and no ICPs with standard or distributed unmetered load.

All ICPs are checked when switching in for shared unmetered load and if this is found these are not accepted. The four ICPs that have shared unmetered load recorded have all had the load added post the ICP having switched into Globug. Existing ICPs are monitored for this via the registry notification process.

The AC020 report and registry list were reviewed, and no discrepancies were identified:

- no ICPs had unmetered load recorded by the distributor and not by Globug,
- no ICPs had unmetered load recorded by Globug and not the distributor,
- no ICPs had unmetered load is indicated but the unmetered daily kWh set to zero or blank,
- no unmetered builder's temporary supplies are present, and
- Globug's daily unmetered kWh matched the value calculated from the distributor information within  $\pm 0.1$  kWh for all ICPs where calculation could be completed.

#### Audit outcome

Compliant

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

#### Code reference

Clause 17 Schedule 11.1

#### Code related audit information

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

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

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

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

#### Audit observation

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

The reconnection process was examined using the AC020 and event detail reports. The timeliness of data for reconnections is assessed in **section 3.3**, and a sample of 15 updates were checked for accuracy.

#### Audit commentary

SalesForce and SAP will not allow more than one party per ICP, nor will it allow an ICP to be set up without a meter.

Globug has not dealt with any new connections, and do not intend to. The AC020 report did not record any data discrepancies relating to new ICPs.

Globug issues reconnection work orders to the MEPs. The MEPs provide daily files of completed disconnections and reconnections which are imported into Salesforce to update the status event date and status without user intervention. Reconnection details may be entered manually for some corrections and backdated updates. Reports are run to provide lists of ICPs with updated statuses to Mercury’s operations team, who process the updates in SAP and on the registry.

I checked the accuracy of 15 reconnected ICPs and found six of the updates contained some incorrect information. There is no impact on submission because all consumption is reported regardless of status:

ICP	ICP Status	Status Event Date Applied	Correct status event date
0000107180UN2A4	2	20 January 2020	31 January 2020
0000114738UNE05	2	12 April 2021	19 April 2021
1002064659LC148	2	26 October 2021	17 October 2022
0000650587TU39B	2	28 April 2022	20 April 2022
0315397349LC4F3	2	9 January 2022	19 January 2022
1002070963UNF5B	2	7 May 2022	19 April 2022

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.8 With: Clause 17 Schedule 11.1  From: 20-Jan-20 To: 07-May-22	Six of the 15 reconnections checked had incorrect active status dates recorded on the registry.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate overall, as some errors were made when entering reconnection dates particularly for backdated updates and corrections.  The audit risk rating is assessed to be low as submission occurs regardless of the ICP status, but this will affect ICP days and line charge billing.		
Actions taken to resolve the issue		Completion date	Remedial action status
With the process change highlighted in 2.1 we are expecting less discrepancies with an automated process and an increase in frequency for registry updates.		March 2023	Identified

<p>Process change will take effect on the 01/03/2023 and is currently in development.</p> <p>Globug will complete daily inactive status updates for all ICPs where disconnections and reconnections are not on same day.</p> <p>New process includes improved reporting and an automation of process to increase frequency from weekly to daily.”</p>		
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
We will continue to monitor and review this process when required.	Ongoing	

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

#### Code reference

Clause 19 Schedule 11.1

#### Code related audit information

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

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

#### Audit observation

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

#### Audit commentary

##### Inactive new connection in progress status

Globug does not complete new connections, and no ICPs are at “inactive - new connection in progress” status.

##### Disconnection information accuracy

Globug issues disconnection work orders to the MEPs. The MEPs provide daily files of completed disconnections and reconnections which are imported into Salesforce to update the status event date and status without user intervention. Disconnection details may be entered manually for some corrections and backdated updates. Reports are run to provide lists of ICPs with updated statuses to Mercury’s operations team, who process the updates in SAP and on the registry.

I checked a sample of five or all late status updates to each inactive status reason code. One of the updates contained an incorrect event date.

ICP	ICP Status	Status Event Date Applied	Correct status event date
0178829943LCFF5	1,4	10 June 2022	6 October 2022

The AC020 report recorded 142 ICPs that had the AMI flag = N and the HHR flag = N with status 1,7 Electrically disconnected remotely by AMI meter. 65 of these had the AMI flag set to Y at the time of

disconnection, and 74 had their status updated to disconnected prior to this audit period. Three ICPs had their status updated to 1,7 by Globug and did not have HHR or AMI metering at the time of disconnection. One was confirmed to have undergone a remote reconnection and Globug's status was correct. The other two were not disconnected remotely:

ICP	Status Event Date	ICP Status	Correct ICP status
0000107180UN2A4	19 June 2022	1,7 Electrically disconnected remotely by AMI meter	1,9 Electrically disconnected due to meter disconnected
0000114738UNE05	19 June 2022	1,7 Electrically disconnected remotely by AMI meter	1,8 Electrically disconnected at pole fuse

Disconnection issues identified in previous audit were re-checked:

Previous audit issue	Comment
<p><b>Monitoring of failed disconnections</b></p> <p>Reporting was put in place at the beginning of October 2021 to identify instances where Globug believes a remote disconnection has occurred, but it turns out the remote disconnection was not successful.</p>	<p>Disconnections are usually completed remotely by MEPs and updated based on the returned paperwork.</p>
<p><b>Recording of credit disconnections</b></p> <p>For credit disconnections, Globug updates the registry after the ICP has been disconnected for more than seven days. The correct disconnection date, status and status reason code are applied when the registry is updated.</p> <p>When an ICP is disconnected and then reconnected for a period of less than seven days, these are not updated on the registry. Globug investigated the sending of daily updates to the registry, but testing found that this was not producing the expected outcome, and further work is required before this can be put into production.</p>	<p>Globug has raised ticket GLO-635 to investigate increasing the frequency of registry updates and ensure that any sites which are disconnected for more than 24 hours undergo a registry status update and that disconnection and reconnection reads are entered. A recommendation is raised in relation to this in <b>section 2.1</b>.</p>

### Inactive ICPs with consumption

Globug runs a weekly "Disconnected\_By\_MEP Master 45 days Disco" report, which shows all disconnected ICPs including the ICP, MEP, and number of days disconnected. Globug checks all ICPs disconnected for 45 days or more to determine whether any consumption has occurred since disconnection, and checks ICPs disconnected for shorter periods if time allows. If consumption is detected, investigation will occur and the ICP will be returned to active status and re-disconnection will be initiated if required. Where disconnected ICPs have consumption, SAP submits this consumption automatically.

A list of 43 ICPs with inactive consumption was provided. A sample of five ICPs with inactive consumption were reviewed. Four were confirmed not to have any genuine consumption as the inactive consumption was estimated.

ICP 0000010975HR5B6 was confirmed to have a small amount of genuine consumption (44 kWh) allocated to the incorrect consumption period. The registry records this as inactive from 11 August 2022 (Switch gain date) to 22 August 2022 but the submission was calculated across the entire read to read period 11 August 2022 to 1 September 2022. Because Globug's submission system assigns consumption volumes between actual reads irrespective of an ICPs status, this has resulted in some consumption

being apportioned into incorrect consumption periods and the allocation of consumption across the inactive period resulted in an over reporting of retailer ICP days.

A further 31 examples of consumption being reported during inactive periods were identified in section 11.2. This is recorded as non-compliance below and in **sections 2.1, and 12.7.**

#### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.9 With: 19 of schedule 11.1</p> <p>From: 01-Sep-21 To: 07-Sep-22</p>	<p>One of the 19 disconnections checked had an incorrect inactive status date recorded on the registry.</p> <p>Two disconnections had incorrect status reason codes recorded.</p> <p>Credit disconnections not updated on the registry or SAP for each full day the ICPs are inactive.</p> <p>Consumption apportioned incorrectly between consumption periods for disconnected ICPs with consumption recorded during the inactive period for 32 ICPs.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p><b>Low</b></p>	<p>The controls are rated as moderate as they will mitigate risk most of the time, but the updating of statuses and credit disconnections requires some improvement.</p> <p>The audit risk is rated as low as the volumes will be submitted but may be allocated across the incorrect period.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p><b>One of the 19 disconnections checked had an incorrect inactive status date recorded on the registry:</b></p> <p>ICP status date has been updated on the registry. This was a human error and not expected to reoccur.</p> <p><b>Two disconnections had incorrect status reason codes recorded.</b></p> <p>ICP statuses have been updated to reflect the accurate reason codes. This was a human error and not expected to reoccur.</p> <p><b>Credit disconnections not updated on the registry or SAP for each full day the ICPs are inactive.</b></p> <p>As discussed in 2.1 – disconnections will be updated daily to ensure registry and SAP are updated regularly.</p>		<p>December 2022</p> <p>December 2022</p> <p>March 2023</p>	<p>Identified</p>

<p><b>Consumption apportioned incorrectly between consumption periods for disconnected ICPs with consumption recorded during the inactive period for 32 ICPs.</b></p> <p>We will review our process documentation and provide training to ensure corrections are processed correctly and consumption for disconnected ICPs are captured and updated accordingly.</p>	<p>January 2023</p>	
<p><b>Preventative actions taken to ensure no further issues will occur</b></p>	<p><b>Completion date</b></p>	
<p><b>Credit disconnections not updated on the registry or SAP for each full day the ICPs are inactive.</b></p> <p>Please refer to 2.1</p> <p><b>Consumption apportioned incorrectly between consumption periods for disconnected ICPs with consumption recorded during the inactive period for 32 ICPs.</b></p> <p>Refresher training will be provided to staff to ensure we are investigating inactive ICP consumption based on our 45-day reports.</p>	<p>March 2023</p> <p>January 2023</p>	

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

#### Code reference

Clause 15 Schedule 11.1

#### Code related audit information

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

#### Audit observation

Globug does not complete new connections. The AC020 report, event detail report, and registry list were examined to confirm no new connections were completed and check compliance.

#### Audit commentary

Globug has not dealt with any new connections, and do not intend to. No ICPs are at "new" or "ready" status.

#### Audit outcome

Compliant

## 4. PERFORMING CUSTOMER AND EMBEDDED GENERATOR SWITCHING

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

#### Code reference

*Clause 2 Schedule 11.3*

#### Code related audit information

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

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

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

#### Audit observation

The switch gain process was examined to determine when Globug deem all conditions to be met. A sample of NTs were checked to confirm that these were notified to the registry within two business days, and that the correct switch type was selected.

#### Audit commentary

Globug's processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind. Globug is offered as an alternative service when customers are facing payment difficulties and is not actively marketed.

The online customer application form and telephone application process confirms whether the customer is moving into the property. This information is used to determine the correct switch type.

All 826 transfer switch NTs where the meter category information was available on the PR255 report had metering category 1.

The five most backdated transfer switch NT files were checked. The correct switch type was applied, and NTs were issued within two business days of pre-conditions being cleared.

#### Audit outcome

Compliant

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

#### Code reference

*Clauses 3 and 4 Schedule 11.3*

#### Code related audit information

*Within three business days after receiving notice of a switch from the registry manager, the losing trader must establish a proposed event date. The event date must be no more than 10 business days after the*

*date of receipt of such notification, and in any 12-month period, at least 50% of the event dates must be no more than five business days after the date of notification. The losing trader must then:*

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

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

The event detail report was reviewed to:

- identify AN files issued by Globug during the audit period,
- assess compliance with the requirement to meet the setting of event dates requirement, and
- check a diverse sample ANs to determine whether the codes had been correctly applied.

The switch breach history report was examined for the audit period.

#### **Audit commentary**

##### **AN content**

AN files are generated automatically from information recorded in SalesForce, except where the AN file fails validation and is manually created by a user. At the time of the previous audit, the PD (premises disconnected) response code was applied where the credit status was red (not in credit) rather than where the ICP was disconnected. This issue has now been resolved and:

- PD (premises disconnected) is applied where the site status is disconnected,
- AD (Advanced metering) is applied where the site status is active and the meter is AMI, and
- AA (Acknowledge and accept) is applied where the site status is active, and the meter is non-AMI.

The NT proposed event date is applied as the AN proposed event date unless the NT proposed date is non-compliant (in which case Globug will issue a withdrawal request).

123 AN files were issued for transfer switches:

- two ANs had the AA (Acknowledge and accept) response code applied; one was correct, and 0457376273LC573 6 September 2022 should have had the AD (Advanced metering) response code - the file was generated manually by a user,
- 105 ANs had the AD (Advanced metering) response code correctly applied, and
- 16 had the PD (Premises electrically disconnected) response code applied; one was disconnected on the registry at the time the AN was issued, 15 were not - I checked a sample of ten ANs; six were disconnected and had the correct response code applied and four had incorrect response codes applied because they were generated before the change to apply PD based on the site status rather than the credit status.

The event detail report was reviewed for all 123 transfer ANs to assess compliance with the setting of event dates requirements. All ANs had proposed event dates within five business days of the NT receipt date.

##### **AN timeliness**

No AN breaches were recorded on the switch breach history report.



## Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.2</p> <p>With: Clauses 3 and 4 Schedule 11.3</p> <p>From: 01-Oct-21</p> <p>To: 06-Sep-22</p>	<p>ICP 0457376273LC573 6 September 2022 had the AA (Acknowledge and accept) response code manually applied but should have had AD (advanced metering).</p> <p>ICPs 0000149152UNC36 1 October 2021, 0006515932RN302 20 January 2022, 0000800860TE024 17 February 2022 and 0000600423TU0FE 3 February 2022 had the PD (premises disconnected) response code applied based on the credit status but should have had AD (advanced metering) because they were not disconnected.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>	
Audit risk rating	Rationale for audit risk rating	
<p><b>Low</b></p>	<p>The controls are recorded as strong, ANs are rarely sent manually and the automated AN process has been updated so that PD is only applied where the ICP status is disconnected.</p> <p>The audit risk rating is assessed to be low as there is a risk that a gaining trader will incur costs for those sent with the incorrect PD code when the ICP is already connected, but the number of ICPs affected is low.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
<p>This is a human error and not a common occurrence.</p> <p>Training has been provided to the team and we have reiterated the importance of looking at disconnection status under the Meter Requests in Salesforce.</p>	<p>December 2022</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>Matrix has been created to help the team with guidance on allocating the correct code.</p>	<p>December 2022</p>	

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

#### Code reference

Clause 5 Schedule 11.3

#### Code related audit information

*If the losing trader provides information to the registry manager in accordance with clause 3(a) of Schedule 11.3 with the required information, no later than 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**

The event detail report was reviewed to identify CS files issued by Globug during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of records. The content checked included:

- correct identification of meter readings and correct date of last meter reading,
- accuracy of meter readings, and
- accuracy of average daily consumption.

CS files with average daily kWh that was negative, zero, or over 200 kWh were identified and checked.

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

### **Audit commentary**

#### **CS timeliness**

CS file creation is automated for approximately 60% of switches. For the other 40% the CS file data does not meet the validation requirements for the automated process, and the CS is directed to an exception work queue where it is manually reviewed, corrected, and released.

The switch breach history report recorded the following breaches for transfer switches:

- 12 CS breaches where the CS is received more than five business days after the CS actual transfer date; ten of the files were one day overdue - I checked the five latest files and found they were not detected promptly as CS breaches were not being monitored on the switch breach history report,
- three WR breaches where the AN and/or CS is delivered more than two business days after AW rejection; normally the CS would be issued as soon as possible after AW rejection, but these were missed, and were not detected promptly as WR breaches were not being monitored on the switch breach history report, and
- two T2 breaches where the AN or CS arrival date was more than three business days after receipt of the NT where the CS arrives immediately after the NT; the AN files were not sent automatically due to validation failures and the late files were not identified until advised by the other trader, as T2 breaches were not being monitored on the switch breach history report.

Globug will begin to run a second switch breach history report each day which includes the switch breach types which were not being monitored.

#### **CS content**

I checked the consistency of last actual read dates and switch event read types for all 72 switch move CS files:

- no CS files had a last actual read date after the CS event date,
- no CS files had last actual read dates on the CS event date,
- no CS files had missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows, and

- two CS files had an event date the day after the last actual read date with an estimated switch event reading; both of the CS files contained some incorrect information and were manually created by users.

ICP	CS event date	Incorrect information	Switch later withdrawn
0471409359LCFEE	4 October 2021	The was ICP supplied for one day, and: <ul style="list-style-type: none"> <li>• the average daily kWh was recorded as 0 but was expected to be 5 based on the incoming CS, and</li> <li>• the switch event reading was recorded as the same as the switch in reading for the day before, with an estimated read type - based on the estimated average daily kWh for the incoming CS this resulted in under recording of 5 kWh.</li> </ul>	No
0005196949RN73A	13 August 2021	<ul style="list-style-type: none"> <li>• The average daily kWh was recorded as 9 but should have been 15.</li> <li>• The switch event reading was recorded as 54252 (E) but should have been 54117 (A) resulting in over recording of 135 kWh.</li> </ul>	No

The methodology of calculating the average daily consumption was checked and found to be compliant. No CS files had average daily kWh that was negative, zero, or over 200 kWh.

I also checked the content of a further five CS files. The CS content was confirmed to be accurate except:

ICP	CS event date	Incorrect information	Switch later withdrawn
0005505437RN86F	25 July 2022	The average daily kWh was recorded as 52 but was expected to be 42 based on the last two actual readings.	Yes

### One day supply ICPs

Where ICPs switch in but do not have a single AMI or HHR meter register, or have meter communications faults, Globug attempts to arrange for the metering to be changed. If that is unsuccessful, the customer is contacted and with their consent the ICP is switched to MEEN or another trader. Typically, the switch is processed from the day after the switch in, leaving Globug with one day of supply. Under the Code, it is expected that an ICP supplied for one day will either switch out on an actual reading effective from the end of that day, or an estimated reading reflecting the incoming event read + estimated daily kWh.

Globug's intended process is to switch the ICP out on the same reading as it switched in on, with an estimated read type and average daily kWh of zero. This practice is non-compliant except in instances where zero consumption is expected. It will result in the volume for the one day of supply to be pushed to the gaining trader (in most cases this is Mercury) and the volume will be reconciled for the incorrect period, which is recorded as non-compliance in **section 4.16**. One day supply CS files are manually generated, and I found that Globug's intended process is not always applied, and sometimes the CS content is compliant.

I recommend that training is completed to help to improve the accuracy of AN and CS content.

Description	Recommendation	Audited party comment	Remedial action
Revise the process for one day supply ICPs	Revise the process for one day supply ICPs to ensure that: <ul style="list-style-type: none"> <li>the switch event reading is actual, or the best estimate of consumption for the day of supply, and</li> <li>the average daily kWh reflects the average daily consumption for the day of supply where actual readings are available, or the incoming CS value.</li> </ul>	This will be reviewed as a part of the Turndown process and ensure reads used are not the same as Globug Gain Read.	Investigating
Training on manual generation of AN and CS files	Conduct training to improve the timeliness and accuracy of manually generated AN and CS files, including: <ul style="list-style-type: none"> <li>determining compliant AN proposed event dates and CS event dates,</li> <li>calculating average daily kWh, which should be the average daily consumption between the last two actual validated reads up to the last day of responsibility; if there are less than two actual readings available, the incoming CS value is expected to be applied,</li> <li>determining correct event readings and read types including providing actual readings where available, or the best estimate of consumption up to the end of the last day of supply,.</li> <li>determining correct last actual read dates, which should be the date of the last actual reading during the period of supply, and</li> <li>processes to review and resolve all AN and CS related breach types on the switch breach history report.</li> </ul>	We plan to have a very focused training on CS and AN content files. Aim to complete it by February 2023.	Identified

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.3 With: Clause 5 of Schedule 11.3	12 CS breaches for transfer switches. Three WR breaches for transfer switches. Two T2 breaches for transfer switches.

From: 17-Feb-22 To: 24-Aug-22	<p>Three manually created transfer CS files had incorrect average daily kWh.</p> <p>Two manually created transfer CS files did not have correct CS event readings, including one 1-day supply ICP with zero consumption estimated.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>		
<b>Low</b>	<p>The controls are rated as moderate overall:</p> <ul style="list-style-type: none"> <li>• some switch breach types on the switch breach history report were not being reviewed or actioned by Globug,</li> <li>• there was some inaccurate CS content for manually generated CS files, and</li> <li>• the process to determine switch event readings, switch event read types and average daily kWh for ICPs supplied for one day is non-compliant.</li> </ul> <p>The audit risk rating is assessed to be low as the volume of late files and incorrect information in the CS files will have a minor effect on reconciliation.</p>		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
Training on ANs has been completed.		December 2022	Identified
Team aim to focus on CS training and aim to complete it by end of January 2023.			
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	
Turndown process to be reviewed and incorporate usage while transferring the site to MEEN		February 2023	

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

##### Code reference

Clause 6(1) and 6A Schedule 11.3

##### Code related audit information

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

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

If the gaining trader disputes a switch meter reading because the switch event meter reading provided by the losing trader differs by 200 kWh or more, the gaining trader must, within 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

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

I also checked for CS files with estimated readings provided by other traders where no RR was issued.

The switch breach history report for the audit period was reviewed.

#### Audit commentary

##### RR

Read change requests are triggered by the read validation process, meter change process, or the losing trader requesting a change after the switch completes. RRs are generally initiated via email between the two parties, and the RR is sent once agreement is reached. A registry report is run twice weekly to identify returned AC files which have accepted or rejected Globug's RR. The agreed switch readings are entered into SAP by the switching team, and into Salesforce by the Globug operations team.

Globug issued five RR files for transfer switches. Four were accepted and one was rejected. I reviewed all five files to determine whether there was a genuine reason for the RRs to be issued, that they were supported by at least two validated actual readings, and that SAP reflected the correct outcome of the RR process. The following exception was identified:

ICP	RR event date	Issue
0005082536RNBB8	29 October 2021	The agreed switch reading is actual but recorded as estimated in SAP.

The switch breach history report recorded one RR breach for a transfer switch. The breach was caused by late identification that an RR was required.

##### AC

All RR requests are evaluated and validated against the ICP information, and requests within validation requirements are accepted. AC files are created manually using the registry user interface. The agreed switch readings are entered into SAP by the switching team, and into Salesforce by the Globug operations team.

Globug did not issue any AC files for transfer switches, and the switch breach history report did not record any AC breaches for transfer switches.

##### CS files with estimated readings where no RR is issued

Five transfer switch CS files with estimated reads where no RR was issued were reviewed. The reading values were recorded correctly in SAP but ICPs 0313702047LC2A9 28 March 2022 and 0000012648TR928 27 July 2022 had actual read type recorded when the agreed switch reading was estimated.

## Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.4</p> <p>With: Clauses 6(1) and 6A Schedule 11.3</p> <p>From: 29-Oct-21</p> <p>To: 27-Jul-22</p>	<p>One RR breach for a transfer switch.</p> <p>ICP 0005082536RNBB8 29 October 2021 was recorded with an estimated read type in SAP instead of actual.</p> <p>ICPs 0313702047LC2A9 28 March 2022 and 0000012648TR928 27 July 2022 were recorded with an actual read type in SAP instead of estimate.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Once previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p><b>Low</b></p>	<p>The controls are rated as moderate. RR and AC files are processed manually, and a small number of processing errors were identified. Read types intended to be estimates are sometimes defaulted to actual on entry into SAP, and there is a work around which requires users to double check read types before saving.</p> <p>The impact is low:</p> <ul style="list-style-type: none"> <li>• the late file was processed prior to revision 14 being created for the switch event month; revised submission data will be washed up, and</li> <li>• actual and estimated switch event readings are treated as permanent by the historic estimate process; incorrect classification of switch event readings does not affect submission accuracy.</li> </ul>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>Globug has assessed these as being human error rather than a technical or system issue. Refresher training has been provided to minimise the likelihood of recurrence</p>		<p>January 2023</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.</p>		<p>Ongoing</p>	

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

#### Code reference

Clause 6(2) and (3) Schedule 11.3

### Code related audit information

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

- *the gaining trader will trade electricity from a meter with a half hour submission type in the registry (clause 6(2)(b));*
- *the gaining trader within 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

The event detail report was reviewed to identify all read change requests and acknowledgements where clause 6(2) and (3) of schedule 11.3 applied.

### Audit commentary

Any of these RR requests are processed in the same way as those received for greater than 200 kWh except that emails are not normally exchanged in advance for these. Each request is evaluated and validated against the ICP information. If the request is within validation requirements these are accepted.

Globug did not issue or receive any read change requests where clause 6(2) and (3) of schedule 11.3 applied.

### Audit outcome

Compliant

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

### Code reference

*Clause 7 Schedule 11.3*

### Code related audit information

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

### Audit observation

I confirmed with 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 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**

The switch gain process was examined to determine when Globug deem all conditions to be met. A sample of NTs were checked to confirm that these were notified to the registry within two business days, and that the correct switch type was selected.

#### **Audit commentary**

Globug’s processes are compliant with the requirements of Section 36M of the Fair Trading Act 1986. NT files are sent as soon as all pre-conditions are met, and the withdrawal process is used if the customer changes their mind. Globug is offered as an alternative service when customers are facing payment difficulties and is not actively marketed.

The online customer application form and telephone application process confirms whether the customer is moving into the property. This information is used to determine the correct switch type.

All 4,432 transfer switch NTs where the meter category information was available on the PR255 report had metering category 1.

The ten most backdated switch move NT files were checked. The correct switch type was applied, and NTs were issued within two business days of pre-conditions being cleared.

#### **Audit outcome**

Compliant

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

#### **Code reference**

*Clause 10(1) Schedule 11.3*

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

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

#### Audit observation

The event detail report was reviewed to:

- identify AN files issued by Globug during the audit period,
- assess compliance with the requirement to meet the setting of event dates requirement, and
- a diverse sample ANs were checked to determine whether the codes had been correctly applied.

The switch breach history report was examined for the audit period.

#### Audit commentary

##### AN content

As discussed in **section 4.2**, AN files are generated automatically from information recorded in SalesForce, except where the AN file fails validation and is manually created by a user. The previous audit issue where the PD (premises disconnected) response code was applied based on the credit status rather than the ICP status has now been resolved. AN event dates are set to match the NT event date unless the ICP has been billed beyond that date, or the NT proposed date is non-compliant.

172 AN files were issued for switch moves:

- six ANs had the AA (Acknowledge and accept) response code correctly applied,
- 136 ANs had the AD (Advanced metering) response code correctly applied,
- 29 had the PD (Premises electrically disconnected) response code applied; eight were disconnected on the registry at the time the AN was issued, and 21 were not - I checked a sample of ten ANs; six were disconnected and had the correct response code applied but four had incorrect response codes applied because they were generated before the change to apply PD based on the site status rather than the credit status.

The event detail report was reviewed for all 172 switch move ANs to assess compliance with the setting of event dates requirements. All the ANs had proposed event dates within three business days of the NT receipt date, and no ANs had proposed event dates before the gaining trader’s proposed event date.

##### AN and CS timeliness

The switch breach history report recorded the following breaches for switch moves:

- eight E2 breaches where the NT proposed transfer date and actual transfer date did not match, and the CS event date was earlier than the gaining trader’s proposed event date; all of the CS files were created manually, and the user entered a CS event date earlier than both the NT proposed event date and AN proposed event date,
- 124 T2 breaches where the CS arrived more than five business days after the NT; 117 of the files were five days or less overdue, and 120 were ten days or less overdue - I checked the five latest files and found that the CS files were not sent automatically due to CS validation failures and the late files were not identified until advised by the other trader because the validation exceptions had not been actioned on time, as T2 breaches were not being monitored on the switch breach history report, and
- nine WR breaches where the AN and/or CS is delivered more than two business days after AW rejection; normally the AN or CS would be issued as soon as possible after AW rejection, but these

were missed, and were not detected promptly as WR breaches were not being monitored on the switch breach history report.

As detailed in **section 4.3**, Globug will begin to run a second switch breach history report each day which includes the switch breach types which were not being monitored. I recommended in **section 4.3** that training is completed to help to improve the accuracy of AN and CS content including event dates.

**Audit outcome**

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.8</p> <p>With: Clause 10(1) Schedule 11.3</p> <p>From: 20-Sep-21</p> <p>To: 19-Sep-22</p>	<p>Eight E2 breaches.</p> <p>124 T2 breaches.</p> <p>Nine WR breaches.</p> <p>ICPs 1002143120LCC87 17 March 2022, 0328203033LC30D 5 September 2022, 1002056840LC1D3 18 February 2022 and 0583861776LCA76 3 March 2022 had the PD (premises disconnected) response code applied based on the credit status but should have had AD (advanced metering) because they were not disconnected.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Twice previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
<p><b>Low</b></p>	<p>The controls are recorded as moderate overall:</p> <ul style="list-style-type: none"> <li>• some switch breach types on the switch breach history report were not being reviewed or actioned by Globug,</li> <li>• ANs are rarely sent manually, and errors occur more frequently for manually created files, and</li> <li>• the automated AN process has been updated so that PD is only applied where the ICP status is disconnected.</li> </ul> <p>The audit risk rating is assessed to be low as there is a risk that a gaining trader will incur costs for those sent with the incorrect PD code when the ICP is already connected but the number of ICPs affected is low. The late files are expected to have a minor impact on other traders and customers.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
<p>As noted, Globug will begin to run a second switch breach history report each day which includes the switch breach types which were not being monitored. Training has been provided to ensure NT proposed transfer date and actual transfer date matches the CS file date. It has been reiterated to check the date when manually updating the info.</p>	<p>January 2023</p>	<p>Identified</p>

Preventative actions taken to ensure no further issues will occur	Completion date	
Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.	Ongoing	

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

##### Code reference

Clause 10(2) Schedule 11.3

##### Code related audit information

*If the losing trader determines a different date, 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

The event detail report was reviewed to identify AN files issued by Globug during the audit period, and assess compliance with the requirement to meet the setting of event dates requirement.

##### Audit commentary

Analysis found all 172 switch move ANs had a valid switch response code, and compliant proposed event dates. Non-compliance is recorded in **section 4.8** for the eight ICPs (E2 breaches) where the CS was sent for an earlier date than requested and proposed. I have recommended in **section 4.3** to provide further training for manual generation of AN and CS files to improve event date compliance.

##### Audit outcome

Compliant

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

##### Code reference

Clause 11 Schedule 11.3

##### Code related audit information

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

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

##### Audit observation

The event detail report was reviewed to identify CS files issued by Globug during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of records. The content checked included:

- correct identification of meter readings and correct date of last meter reading,
- accuracy of meter readings, and
- accuracy of average daily consumption.

CS files with average daily kWh that was negative, zero, or over 200 kWh were identified and checked.

#### Audit commentary

CS file creation is automated for approximately 60% of switches. For the other 40% the CS file data does not meet the validation requirements for the automated process, and the CS is directed to an exception work queue where it is manually reviewed, corrected, and released.

The methodology of calculating the average daily consumption was checked and is compliant. No CS files had average daily kWh that was negative or over 200 kWh. Two CS files had average daily kWh of zero and were correct.

I checked the consistency of last actual read dates and switch event read types for all 96 switch move CS files:

- the CS file for 0000375807TU0E7 21 October 2021 had a last actual read date after the CS event date and contained some inaccurate information,
- six CS files had an event date the day after the last actual read date with an estimated switch event reading, and five contained some incorrect information,
- no CS files had last actual read dates on the CS event date, and
- no CS files had missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows.

All of the CS files containing incorrect information were manually created by users.

ICP	CS event date	Incorrect information	Switch later withdrawn
0000375807TU0E7	21 October 2021	<ul style="list-style-type: none"> <li>• The switch event reading was recorded as 63020 (E) but should have been 63090 (E).</li> </ul>	Yes
0172640601LCE90	30 August 2022	<ul style="list-style-type: none"> <li>• The switch event read type was estimated but should have been actual.</li> <li>• The average daily kWh was 1 but should have been 0.</li> </ul>	Yes
0010390412EL164	21 September 2021	<p>The ICP was supplied for one day, and:</p> <ul style="list-style-type: none"> <li>• the average daily kWh was recorded as 0 but was expected to be 4 based on the incoming CS, and</li> <li>• the switch event readings were recorded as the same as the switch in reading for the day before, with an estimated read type; based on the estimated average daily kWh for the incoming CS this resulted in under recording of 4 kWh.</li> </ul>	No
0030340230PC1C3	18 September 2021	<p>The ICP was supplied for one day, and:</p> <ul style="list-style-type: none"> <li>• the average daily kWh was recorded as 0 but was expected to be 29 based on the incoming CS, and</li> <li>• the switch event reading was recorded as the same as the switch in reading for the day before, with an</li> </ul>	No

ICP	CS event date	Incorrect information	Switch later withdrawn
		estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 29 kWh.	
1002143120LCC87	17 March 2022	<ul style="list-style-type: none"> <li>The average daily kWh was recorded as 31 but was expected to be 5.</li> <li>The switch event reading was the same as the last actual reading on 15 March 2022. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 5 kWh.</li> <li>The last actual read date was recorded as 16 March 2022 but should have been 15 March 2022 based on the last day AMI data was received for. The last actual read in SAP was 12 March 2022.</li> </ul>	Yes
0000100793DE4A0	12 August 2022	<p>The ICP supplied for one day, and:</p> <p>RD14012641/1 switch event read 11 August 2022 29545 (E) and outgoing read 12 August 2022 26562 (E) a difference of -2983 kWh. The estimated reading is incorrect.</p> <p>RD14012642/1 switch event read 11 August 2022 20752 (E) and outgoing read 12 August 2022 20770 (E) a difference of +18 kWh.</p>	No

I also checked the content of a further five CS files. The CS content was confirmed to be accurate except:

ICP	CS event date	Incorrect information	Switch later withdrawn
0000138084UN2E6	27 July 2022	<ul style="list-style-type: none"> <li>The average daily kWh was recorded as 31 but was expected to be 15. The file was created by SAP.</li> </ul>	Yes
0000065773TR7D9	22 June 2022	<ul style="list-style-type: none"> <li>The average daily kWh was recorded as 14 but was expected to be 43.</li> <li>The switch event reading was recorded as 44333 (A) but was expected to be 42854 (A).</li> </ul>	Yes

### One day supply ICPs

As discussed in **section 4.3** Globug switches out ICPs which switch in and are unable to meet its supply requirements. Typically, the switch is processed from the day after the switch in, leaving Globug with one day of supply. Under the Code, it is expected that an ICP supplied for one day will either switch out on an actual reading effective from the end of that day, or an estimated reading reflecting the incoming event read + estimated daily kWh. Globug's intended process is to switch the ICP out on the same reading as it switched in on, with an estimated read type and average daily kWh of zero. This practice is non-compliant except in instances where zero consumption is expected. One day supply CS files are manually generated, and I found that Globug's intended process is not always applied, and sometimes the CS content is compliant. Non-compliance is recorded in **section 4.16**.

### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.10</p> <p>With: Clause 11 Schedule 11.3</p> <p>From: 18-Sep-21</p> <p>To: 30-Aug-22</p>	<p>One manually created switch move CS had an incorrect read type.</p> <p>Six manually created switch move CS files contained incorrect switch event reads, including four 1-day supply ICPs with zero consumption estimated and one 1-day supply ICP where negative consumption was estimated.</p> <p>One manually created switch move CS had an incorrect last actual read date.</p> <p>Six manually created switch move CS files had incorrect average daily kWh.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p><b>Low</b></p>	<p>The controls are rated as moderate overall:</p> <ul style="list-style-type: none"> <li>• some switch breach types on the switch breach history report were not being reviewed or actioned by Globug,</li> <li>• there was some inaccurate CS content for manually generated CS files, and</li> <li>• the process to determine switch event readings, switch event read types and average daily kWh for ICPs supplied for one day is non-compliant.</li> </ul> <p>The audit risk rating is assessed to be low as the volume of late files and incorrect information in the CS files will have a minor effect on reconciliation. Five of the switches containing incorrect information were later withdrawn.</p>		
Actions taken to resolve the issue	Completion date	Remedial action status	
<p>Training has been provided to ensure Read Type is assessed with caution.</p>	<p>January 2023</p>	<p>Identified</p>	
Preventative actions taken to ensure no further issues will occur	Completion date		
<p>Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.</p>	<p>Ongoing</p>		

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

##### Code reference

Clause 12 Schedule 11.3

##### Code related audit information

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

- *if the switch meter reading established by the gaining trader differs by less than 200 kWh from that provided by the losing trader, both traders must use the switch event meter reading provided by the gaining trader (clause 12(2)(a)); or*
- *if the switch event meter reading provided by the losing trader differs by 200 kWh or more from a value established by the gaining trader, the gaining trader may dispute the switch meter reading. In this case, the gaining trader, within 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

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

I also checked for CS files with estimated readings provided by other traders where no RR was issued.

The switch breach history report for the audit period was reviewed.

##### Audit commentary

###### RR

Read change requests are triggered by the read validation process, meter change process, or the losing trader requesting a change after the switch completes. RRs are generally initiated via email between the two parties, and the RR is sent once agreement is reached. A registry report is run twice weekly to identify returned AC files which have accepted or rejected Globug's RR. The agreed switch readings are entered into SAP by the switching team, and into SalesForce by the Globug operations team.

Globug issued 50 RR files for switch moves. 31 were accepted and 19 were rejected. I checked a sample of five accepted and five rejected RRs to determine whether there was a genuine reason for the RRs to



be issued, that they were supported by at least two validated actual readings, and that SAP reflected the correct outcome of the RR process. The following exceptions were identified:

ICP	RR event date	Issue
0000022439WED82	24 May 2022	The agreed switch read is 12472 (E) but 13473 (E) is applied in SAP resulting in over submission of 1,001 kWh.
0430927037LCBBC	5 March 2022	The agreed switch read is 48438 (E) but 48488 (E) is applied in SAP resulting in over submission of 50 kWh.
0000741472TUAEA	31 August 2022	The agreed switch reading is estimated but recorded as actual in SAP.
0000609928UN569	10 December 2021	An RR was sent to CTCT in error for the wrong time slice. CTCT rejected the RR and there was no impact.
0000002574CP867	3 August 2022	The RR was only supported by one validated actual reading, instead of two.

The switch breach history report recorded 14 RR breaches for switch moves. I checked the ten latest and found they were late due to investigation and negotiation required before the RR could be issued.

#### AC

All RR requests are evaluated and validated against the ICP information, and requests within validation requirements are accepted. AC files are created manually using the registry user interface. The agreed switch readings are entered into SAP by the switching team, and into Salesforce by the Globug operations team.

Two AC files were issued for switch moves. One accepted the other trader's RR and the switch was later withdrawn, and one rejected the other trader's RR so that a wrong premises withdrawal could be issued. The switch breach history report did not record any AC breaches for switch moves.

#### CS files with estimated readings where no RR is issued

Five switch move CS files with estimated reads where no RR was issued were reviewed. The reading values were recorded correctly in SAP but ICP 1002080286LC428 24 August 2022 had actual read type recorded when the agreed switch reading was estimated.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.11 With: Clause 12 Schedule 11.3	ICPs 0000741472TUAEA 31 August 2022 and 1002080286LC428 24 August 2022 were recorded with an actual read type in SAP instead of estimate.  ICPs 0000022439WED82 24 May 2022 and 0430927037LCBBC 5 March 2022 did not have the agreed switch reading recorded in SAP resulting in combined over submission of 1,051 kWh.  ICP 0000609928UN569 10 December 2021 had an RR issued for an incorrect time slice which was rejected by the other trader.  The RR for ICP 0000002574CP867 3 August 2022 was only supported by one validated actual reading.

From: 28-Jan-22 To: 12-Sep-22	14 RR breaches for switch moves. Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
<b>Low</b>	The controls are rated as moderate. RR and AC files are processed manually, and a small number of processing errors were identified. Read types intended to be estimates are sometimes defaulted to actual on entry into SAP, and there is a work around which requires users to double check read types before saving.  The impact is low: <ul style="list-style-type: none"> <li>all late files were processed prior to revision 14 being created for the switch event month; revised submission data will be washed up,</li> <li>actual and estimated switch event readings are treated as permanent by the historic estimate process; incorrect classification of switch event readings does not affect submission accuracy,</li> <li>the incorrect agreed switch readings recorded in SAP resulted in over submission of 1,051 kWh; revised submission data will be washed up if these readings are corrected, and</li> <li>only one RR not supported by two actual readings was identified.</li> </ul>	
Actions taken to resolve the issue	Completion date	Remedial action status
Training has been provided to the team on double checking the read type entered as. Also, will take this up with Readings Management to check if there is any process at their end that could update the Read Type.	January 2023	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.	Ongoing	

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

##### Code reference

Clause 13 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. The event detail report and switch breach report were analysed to identify all switch files sent during the audit period. No half hour switches were identified.

#### **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 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. The event detail report and switch breach report were analysed to identify all switch files sent during the audit period. No half hour switches were identified.

#### **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 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. The event detail report and switch breach report were analysed to identify all switch files sent during the audit period. No half hour switches were identified.

#### **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 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 10 business days after the date of the initial switch withdrawal request (clause 18(e))*
- *if the trader requests that a switch request be withdrawn, and the resolution of that switch withdrawal request results in the switch proceeding, within 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

An event detail report was reviewed to:

- identify all switch withdrawal requests issued by Globug and check the content of a sample of at least three (or all) ICPs from the event detail report for each withdrawal code,
- identify all switch withdrawal acknowledgements issued by Globug, and check a sample, and
- check the timeliness of NW files.

The switch breach history report was checked for any late NWs and AWs.

#### Audit commentary

##### NW

NW files are created manually using the registry user interface, apart from:

- UA (unauthorised account) withdrawals where Globug has an arrangement with the social housing provider managing the property; in these cases, the tenants are not authorised to request a switch to another trader, and a UA withdrawal is appropriate,
- MI (metering issue) withdrawals where there is a discrepancy between SAP and registry metering records; the previous audit found that some MI withdrawals were invalidly issued where there was mismatch caused by leading zeros in meter serial numbers, but this has not occurred recently, because SAP and registry metering information is now closely aligned.

57 (23.3%) of the 244 NWs issued by Globug were rejected by the other trader. A diverse sample of 21 NWs were checked. 17 had the correct withdrawal code applied and four did not:

- ICP 0000170375UNB22 14 July 2022 had CE (customer error) code applied but should have had CX (customer cancellation),
- ICPs 1002092466LC335 1 February 2022, 0000013620CE3A0 6 July 2022 and 0000925348TUE4F 25 May 2022 had the DF (Date failed) code applied but the requested transfer date was not more than ten business days in the future; the date was incorrect, and the CE (Customer error) code should have been applied.

The switch breach history report recorded:

- 18 NA breaches where the NW was issued more than two calendar months after the CS transfer date; I checked the ten latest files and found the delay was caused by:
  - investigation to confirm the withdrawal was required,

- delays in identifying metering changes which occurred prior to the switch,
- double withdrawals, and
- two SR breaches where the withdrawal process was completed more than ten business days after being initiated; the delays were caused by
  - investigation and negotiation with the other trader, and
  - not actively monitoring SR breaches on the switch breach history report - Globug intends to monitor these breaches in the future.

**AW**

AW files are created manually using the registry user interface, after reviewing the incoming NW. Globug monitors incoming NWs with AW files due using the switch breach history report. All are checked on a daily basis.

25 (5.2%) of the 477 AWs issued by Globug were rejections. Five were later accepted on reissue with the same response code, and three were accepted on reissue with different response codes. I checked a sample of ten rejections including the five accepted on reissue with the same code and found they were appropriately rejected based on the information available at the time.

The switch breach history report did not record any AW breaches.

**Audit outcome**

Non-compliant

Non-compliance	Description	
Audit Ref: 4.15  With: Clause 17 of Schedule 11.3      From: 17-Nov-21 To: 31-Aug-22	Four of the 21 NW files sampled had an incorrect NW code.  18 NA breaches. Two SR breaches.  Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
<b>Low</b>	The controls are rated as moderate as the controls will mitigate risk most of the time. Controls will improve once all breach types on the switch breach history report are reviewed and actioned.  The impact is low because most NW and AW files were sent on time and had accurate content.	
Actions taken to resolve the issue	Completion date	Remedial action status
Globug has assessed these as being human error rather than a technical or system issue. Refresher training has been provided to minimise the likelihood of recurrence.	January 2023	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.	Ongoing	

#### 4.16. Metering information (Clause 21 Schedule 11.3)

##### Code reference

Clause 21 Schedule 11.3

##### Code related audit information

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

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

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

##### Audit observation

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

##### Audit commentary

##### Accuracy of CS event readings

The meter readings used in the switching process are validated meter readings or permanent estimates. The reads applied in switching files were examined in **section 4.3** for transfer switches, **section 4.10** for switch moves, and **sections 4.4** and **4.11** for read changes.

The following CS files contained event readings which did not reflect the actual reading or best estimate of actual consumption at the end of the last day of supply:

ICP	CS event date	Incorrect information	Switch later withdrawn	Report section
0471409359LCFEE	4 October 2021	The was ICP supplied for one day, and the switch event reading was recorded as the same as the switch in reading for the day before, with an estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 5 kWh.	No	4.3
0005196949RN73A	13 August 2021	The switch event reading was recorded as 54252 (E) but should have been 54117 (A).	No	4.3
0000375807TU0E7	21 October 2021	The switch event reading was recorded as 63020 (E) but should have been 63090 (E).	Yes	4.10

ICP	CS event date	Incorrect information	Switch later withdrawn	Report section
0010390412EL164	21 September 2021	The ICP supplied for one day, and the switch event readings were recorded as the same as the switch in reading for the day before, with an estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 4 kWh.	No	4.10
0030340230PC1C3	18 September 2021	The ICP supplied for one day, and the switch event reading was recorded as the same as the switch in reading for the day before, with an estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 29 kWh.	No	4.10
1002143120LCC87	17 March 2022	The switch event reading was the same as the last actual reading on 15 March 2022. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 5 kWh.	Yes	4.10
0000065773TR7D9	22 June 2022	The switch event reading was recorded as 44333 (A) but was expected to be 42854 (A).	Yes	4.10
0000100793DE4A0	12 August 2022	The ICP supplied for one day, and:  RD14012641/1 switch event read 11 August 2022 29545 (E) and outgoing read 12 August 2022 26562 (E) a difference of -2983 kWh. The estimated reading is incorrect.  RD14012642/1 switch event read 11 August 2022 20752 (E) and outgoing read 12 August 2022 20770 (E) a difference of +18 kWh.	No	4.10

### One day supply ICPs

I found that Globug did not consistently meet the requirements of clause 21(a) of Schedule 11.3 where ICPs were supplied for one day. This clause requires switch event readings to be as accurate as possible, or fair and reasonable if an estimated reading is applied.

Globug intends to supply ICPs with AMI or HHR metering and a single meter register. Where ICPs switch in but do not meet these requirements or have meter communications faults, Globug attempts to arrange for the metering to be changed. If that is unsuccessful, the customer is contacted and with their consent the ICP is switched to MEEN or another trader. Typically, the switch is processed from the day after the switch in, leaving Globug with one day of supply. Under the Code, it is expected that an ICP supplied for one day will either switch out on an actual reading effective from the end of that day, or an estimated reading reflecting the incoming event read + estimated daily kWh.

Globug's intended process is to switch the ICP out on the same reading as it switched in on, with an estimated read type and average daily kWh of zero. This practice is non-compliant with clause 21(a) of Schedule 11.3 except in instances where zero consumption is expected. It will result in the volume for the one day of supply to be pushed to the gaining trader (in most cases this is Mercury) and the volume will be reconciled for the incorrect period.



One day supply CS files are generated manually by users, and I found that the expected process is not consistently followed and sometimes CS content is correct. I identified 495 ICPs on the switch event detail report which were active with Globug for one day. I checked 70 of the associated CS files and found:

- 22 ICPs switched in to Globug and out to MEEN the following day on the same reading, which did not provide a fair and reasonable estimate of consumption, and
- 48 ICPs switched out on a higher reading than they switched in on.

The readings for two of the ICPs which switched out on the same reading, and seven of the ICPs which switched out on different readings were recorded as actual but should have been estimated. This is recorded as non-compliance in **section 9.1**.

### Policy for meter reading expenses

Globug’s policy regarding the management of meter reading expenses has not changed during the audit period and is compliant.

### Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.16 With: Clause 21 of Schedule 11.3</p> <p>From: 05-Mar-22 To: 24-May-22</p>	<p>Eight CS files contained event readings which did not reflect the actual reading or best estimate of actual consumption at the end of the last day of supply.</p> <p>22 ICPs supplied for one day switched out with the same reading they switched in on, and the switch event reading did not reflect the best estimate of actual consumption at the end of the last day of supply.</p> <p>Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
<p><b>Low</b></p>	<p>The controls are rated as moderate overall:</p> <ul style="list-style-type: none"> <li>• there was some inaccurate CS content for manually generated CS files, and</li> <li>• the process to determine switch event readings, switch event read types and average daily kWh for ICPs supplied for one day is non-compliant.</li> </ul> <p>The audit risk rating is assessed to be low as the incorrect information in the CS files will have a minor effect on reconciliation, where the switches were not withdrawn.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
<p>Globug has assessed these as being human error rather than a technical or system issue. Refresher training has been provided to minimise the likelihood of recurrence.</p>	<p>January 2023</p>	<p>Identified</p>

Preventative actions taken to ensure no further issues will occur	Completion date	
Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.	Ongoing	

#### 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 contact with the losing retailer and invited the losing retailer to make a counteroffer.*

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

##### Audit observation

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

##### Audit commentary

Globug does not attempt to win-back customers or contact the customer when an incoming NT is received.

12 NWs with the CX (customer cancellation) withdrawal reason code were issued within 180 days of switch completion where Globug was the losing trader. One of the files was rejected by the other trader but accepted on reissue with the CE (customer error) withdrawal reason code.

I checked a sample of ten files including the rejected file and found all withdrawal requests were initiated by the customer and Globug did not make any offers or enticements.

##### Audit outcome

Compliant

## 5. MAINTENANCE OF UNMETERED LOAD

### 5.1. Maintaining shared unmetered load (Clause 11.14)

#### Code reference

Clause 11.14

#### Code related audit information

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

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

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

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

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

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

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

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

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

#### Audit observation

The processes to identify and monitor shared unmetered load were discussed. The registry lists and AC020 reports were reviewed to identify all ICPs with shared unmetered load and assess compliance.

#### Audit commentary

Globug supplies four ICPs with shared unmetered load, and no ICPs with standard or distributed unmetered load.

All ICPs are checked when switching in for shared unmetered load and if this is found these are not accepted. The four ICPs that have shared unmetered load recorded have all had the load added after switching in. This is proof of the process in place that existing ICPs are monitored for this via the registry notification process.

The unmetered details are stored in two places in SAP. One writes to the registry and the other is used to derive submission. Submission is occurring for these ICPs from SAP, however Globug does not pass these costs onto their customer.

#### **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 10 business days after it becomes aware of the limit having been exceeded, advise each participant who is or would be expected to be affected of:*
  - o *the date the limit was calculated or estimated to have been exceeded*
  - o *the details of the corrective measures that the 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 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**

Compliant

## 6. GATHERING RAW METER DATA

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

#### Code reference

Clause 10.13, Clause 10.24 and Clause 15.13

#### Code related audit information

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

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

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

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

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

#### Audit observation

Processes to ensure metering is installed and unmetered load is quantified were examined.

The AC020 trader compliance report, meter event details report, and registry list files were reviewed to determine compliance.

#### Audit commentary

##### **Metering installations installed**

Review of the AC020 report and registry list found all active ICPs had an MEP recorded and metering category 1.

Globug does not complete new connections, and no submission information is determined by subtraction.

##### **Distributed generation**

Globug does not accept ICPs with distributed generation present. Globug have "ICPs with DG installed" reporting in place to identify any ICPs which have distributed generation added during their period of supply, which identifies ICPs with installation type B or G and I flow metering. Any found are switched away as soon as possible after the customer has been contacted to consent to the switch. The manual process to run and monitor this "ICPs with DG installed" report has not been consistently performed during the audit period due to personnel as well as role and responsibility changes within Globug, however the reports did not identify ICPs with installation type B or G without I flow metering. The Globug operations team are now consistently monitoring this report and intend to update the report to include ICPs with installation type B or G without I flow metering. I have raised a recommendation to maintain visibility.

Description	Recommendation	Audited party comment	Remedial action
Identification of ICPs with potential distributed generation	<p>Update the “ICPs with DG installed” report to include ICPs with installation type B or G and no I flow metering.</p> <p>Create a provisioning exception for any ICPs with installation type B or G and no I flow metering, to avoid switching in ICPs with potential distributed generation.</p>	<p>Globug ICP checker logic now includes provisioning exceptions for ICPs with installation type B or G and no I flow metering.</p> <p>This will ensure that ICPs are immediately identified and will mitigate any switch-ins with potential distributed generation.</p> <p>This currently in the testing stages with our developer.</p>	Identified

Examination of the registry list with history identified five ICPs with distributed generation indicated by the distributor, which have RPS profile assigned and no I flow register. All have now switched out.

ICP	Supply start	Supply end	Generation added by distributor	Comments
0000052513HB7B5	13 June 2022	16 November 2022	Effective 6 May 2022 on 6 May 2022	Installation type B, fuel type solar and generation capacity 3 were added by the distributor prior to the switch being completed.
0000052440HBA79	1 July 2022	15 November 2022	Effective 5 May 2022 on 5 May 2022	Installation type B, fuel type solar and generation capacity 3 were added by the distributor prior to the switch being completed.
0000050512HB8B0	19 June 2022	18 August 2022	Effective 14 December 2021 on 14 December 2021	Installation type B, fuel type solar and generation capacity 5 were added by the distributor prior to the switch being completed.
0000053937UNC49	11 November 2014	11 May 2022	Effective 15 September 2021 on 24 February 2022	Installation type B, fuel type solar and generation capacity 5 were added by the distributor during the period of supply.
0000146511UN732	11 May 2017	24 January 2022	Effective 11 May 2017 on 17 March 2021	Installation type B, fuel type solar and generation capacity 1.44 were added by the distributor during the period of supply.

This is recorded as non-compliance below.

#### **Bridged meters**

37 ICPs were bridged during reconnection and were recertified on un-bridging.

#### **Audit outcome**

Non-compliant

Non-compliance	Description		
Audit Ref: 6.1 With: Clause 10.13  From: 01-Sep-21 To: 30-Sep-22	Five ICPs with distributed generation present but export metering is not present. Energy is not metered and quantified according to the code where meters are bridged. Potential impact: Low Actual impact: Low Audit history: Multiple Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are moderate as they will mitigate risk most of the time but there is room for improvement.  The volume of ICPs with distributed generation and bridged meters is small therefore the audit risk rating is low. The ICPs with distributed generation have now switched out.		
Actions taken to resolve the issue		Completion date	Remedial action status
All five ICPs have all been switched out. Our ICP checker logic now includes provisioning exceptions for ICPs with installation type B or G and no I flow metering. The ICP checker logic is currently being tested by our developers, and we are expecting it to go live within the next month if testing runs smoothly.		December 2022  March 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
ICP checker logic and exceptions will be monitored frequently by the team to pick up any discrepancies.		Ongoing	

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

### Code reference

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

### Code related audit information

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

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



- ensure any reasonable changes from the grid owner are carried out.

The participant responsible for the metering installation must:

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

#### **Audit observation**

The 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 Schedule 10.7 and clause 2(2) Schedule 15.3

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

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

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

#### **Audit observation**

The registry list 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**

Compliant

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

#### **Code reference**

Clause 10.43(2) and (3)

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

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

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

#### **Audit observation**

Processes relating to defective metering were examined. Ten examples of defective meters were identified and reviewed, to determine whether the MEP was advised and if appropriate action was taken.

#### Audit commentary

Defective meters are typically identified through the meter reading validation process. There is a check for zeros as part of this process.

Upon identifying a possible defective meter, Globug raises a field services job to investigate or correct the issue. I reviewed ten examples of defective metering installations. In all cases a field services job was raised, and the MEP was advised where they were not the party alerting Globug.

#### Audit outcome

Compliant

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

#### Code reference

Clause 2 Schedule 15.2

#### Code related audit information

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

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

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

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

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

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

*2(6) – The interrogation systems must record:*

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

#### Audit observation

The data collection process was examined by a walkthrough of the processes including data loading and validation.

### Audit commentary

All actual reads are sourced from the services interface, as AMI readings.

Read data is provided by IntelliHUB, ARC (up to 7 Sep 2022) and AMS. Globug does not collect data as a certified reconciliation participant.

The MEPs provide clock synchronisation information via SFTP, and I viewed examples of these.

Clock synchronisation event emails are reviewed on receipt, to determine whether the issue has been resolved or a field services job is required.

Globug does not actively review the time difference reports published by the AMI MEPs as they rely on these AMI MEPs to alert them of any clock synchronisation events requiring attention.

I reviewed three reports for time difference published by two separate AMI MEPs. Most clock adjustments reviewed were small, however for ICP 0030102179PCE39 I identified that the time correction report on 21 September 2022 was 283,276.2 seconds or 3.28 days.

As these reports are not reviewed by Globug, no assessment on the impacts these large time corrections to the interval data have been conducted. Non-compliance is recorded below.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.5 With: Clause 2 Schedule 15.2  From: 01-Sep-21 To: 30-Sep-22	Time correction of 3.28 days for ICP 0030102179PCE39 was not reviewed or raw meter data assessed to determine if any correction was required.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are moderate as while the time difference reports published by the AMI MEPs are not reviewed by Globug to enable an assessment of the impacts of any time corrections on the raw meter data, Globug are alerted to specific ICP time difference issues via email from the respective MEP however it is unknown whether all material time corrections are notified by the AMI MEPs.  The audit risk rating is low as the number of affected meters is small and the affected ICPs are metering installation category 1 so the affected volumes are quite small.		
Actions taken to resolve the issue		Completion date	Remedial action status
This non-compliance is controlled by the MEP. Feedback has been provided accordingly. Read data is provided by IntelliHUB and AMS. Globug does not collect data as a certified reconciliation participant.		January 2023	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
We will add time corrections to our discussion points during monthly meetings with MEPs. This way we can be more proactive in capturing and errors that may arise.	Ongoing	

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

### Code reference

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

### Code related audit information

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

*All validated meter readings must be derived from meter readings.*

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

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

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

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

### Audit observation

The data collection process was examined by a walkthrough of responsibilities and processes.

### Audit commentary

Some manual readings are received as part of field service activity such as remote disconnection and reconnection, manual disconnection and reconnection, or as part of a meter reprogram to update the register configuration to a single register. Not all of these readings are uploaded into SAP, but where these are loaded into SAP, they undergo meter reading validation.

Customer readings are not accepted. Only AMI readings used to determine volume information are provided by IntelliHUB and AMS.

Readings are appropriately labelled.

Electronic readings are discussed further in **section 9.6**.

### Audit outcome

Compliant

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

### Code reference

Clause 6 Schedule 15.2

### Code related audit information

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

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

### Audit observation

The process of the application of meter readings was examined.

### Audit commentary

Globug imports midnight AMI readings, which are applied as at 2400hrs. One read per day is provided in the AMI read files.

Application of reads was reviewed as part of the historic estimate checks and is discussed in **section 12.11**, and reads were traced from the source files to SAP in **section 6.5**. The content of CS and RR files was examined in **sections 4.3, 4.4, 4.10 and 4.11**. There were seven ICPs with incorrect switch event meter readings sent which are listed in **section 4.16**.

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.7 With: Clause 6 Schedule 15.2 From: 01-Sep-21 To: 30-Sep-22	Two transfer switches sent with the incorrect read. Five switch move ICPs sent with incorrect estimated reads. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are rated as moderate. The error found related to manually released CS files. The audit risk rating is assessed to be low as there were only a small number of CS files sent with the incorrect last read and this will have a minor effect on reconciliation.

Actions taken to resolve the issue	Completion date	Remedial action status
Globug has assessed these as being human error rather than a technical or system issue. Refresher training has been provided to minimise the likelihood of recurrence.	January 2023	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.	Ongoing	

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

### Code reference

*Clause 7(1) and (2) Schedule 15.2*

### Code related audit information

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

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

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

### Audit observation

The process to manage missed reads was examined, including review of reports used in the process and evidence of action taken on unread ICPs.

A sample of ICPs not read during the period of supply were reviewed.

### Audit commentary

Meters without AMI, and non-communicating AMI meters are not accepted by Globug. For all sites that switch into Globug an AMI meter must be installed, if not already present. If an ICP switches in and it is subsequently determined that an AMI meter cannot be installed, Globug contacts the customer and advises them they must switch to another retailer within seven days, or Globug will switch them to Mercury. In these instances, no reads will be gained for the short period of supply that has elapsed, and the customer will be switched out on an estimated reading. In 22 cases the switch out estimate read is the same as the switch gain read or estimate that Globug received in the incoming CS file from the previous trader. This is discussed further in **sections 4.3, 4.10, 4.16 and 6.7**.

The process of switching ICPs without AMI meters and attempting to install AMI meters, where it is subsequently determined that an AMI meter cannot be installed, can take a number of months and during the audit five ICPs were identified where the process either took more than three months or was still ongoing after three months. Where these ICPs are eventually switched to Mercury with an event date one day after the switch to Globug, the actual period of time between the customer switching away from their previous trader to the first opportunity to bill this ICP means the customers first invoice is for three or more months of consumption. For many of these customers seeking a prepay product such as Globug

this eventual first invoice that is provided by Mercury may result in these customers subsequently falling into Mercury’s credit process. I recommend that Globug review its process of switching non-AMI metered ICPs or non-communicating ICPs to ensure either estimated invoicing occurs during the timeline to attempt to install an AMI meter or resolve the AMI comms issue to ensure the timeline does not exceed one standard billing period for the customer.

Description	Recommendation	Audited party comment	Remedial action
Review timeframes attempting to install AMI meters	Globug review its process of switching non-AMI metered ICPs or non-communicating ICPs to ensure either estimated invoicing occurs during the timeline to attempt to install an AMI meter or resolve the AMI comms issue or ensure the timeline does not exceed one standard billing period for the customer.	Due to the nature of Globug we are unable to base a reasonable timeline off one standard bill period. It would also be difficult for us to provide estimated billing as our billing cycle is daily.  We will refine our process to capture ICPs that have a high balance and are not communicating or a non-AMI meter. This may take some time as we will need to define our threshold for what is considered ‘high-balance’ for our customers and involve our developers to look at the specifications we may require for reporting.	Investigating

Where a meter read is not received for more than 72 hours, and communications cannot be established, the customer is contacted to determine whether their power supply is turned off at the mains. If the customer cannot be contacted, a field service request is raised to investigate.

There is weekly liaison between Globug and the MEPs regarding ICPs without readings.

The vacancy process has been reviewed during the audit period and it is expected to commence as soon as the property becomes vacant. A letter is sent prompting the next occupant to register with Globug seven days after the property becomes vacant. A second letter is sent seven days after the first letter and if no response has been received within seven days, then a remote disconnection is arranged. If there are no communications to the site, a site visit is arranged to check for occupancy.

A list of 19 ICPs with a period of supply more than one day were examined and found one ICP (0300620020LC732) where they could not be supplied as the AMI meter was not communicating. This ICP switched out on an estimate as an actual read couldn’t be gained. The average daily consumption received in the CS file was used to estimate the volume for the intervening period.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.8 With: 7(1) & (2) of schedule 15.2	Exceptional circumstances not proven for ICP 0300620020LC732 not read during period of supply.  Potential impact: Low  Actual impact: Low  Audit history: Multiple

From: 01-Sep-21 To: 30-Sep-22	Controls: Strong Breach risk rating: 1	
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>	
<b>Low</b>	The controls are rated as strong as Globug use AMI meters, and if an AMI meter cannot be installed these ICPs are switched away. The audit risk rating is low as the volume of ICPs affected by this is small.	
<b>Actions taken to resolve the issue</b>	<b>Completion date</b>	<b>Remedial action status</b>
From time-to-time Globug may expect a period of short supply where metering installation cannot be read so ICP is required to be switched-out. Under these circumstances our process is to use the average daily consumption received in the CS file is used for estimating the volume for the intervening period. With a 98.59% decrease in ICPs found with exceptional circumstances not read during period of supply from last audit (71 ICPs found, in 2021 audit) we are confident that our process is working.	NA	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>	<b>Completion date</b>	
As above.	As above.	

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

##### Code reference

Clause 8(1) and (2) Schedule 15.2

##### Code related audit information

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

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

##### Audit observation

The meter reading process was examined. Monthly reports for March 2022 to June 2022 were provided and reviewed to determine whether they met the requirements of clauses 8 and 9 of schedule 15.2.

A sample of unread ICPs on the NSPs where less than 100% read attainment was achieved for July 2022 were reviewed to determine whether exceptional circumstances existed.

##### Audit commentary

As discussed in **section 6.8**, there are processes in place to monitor read attainment, and attempt to resolve issues preventing read attainment.

The monthly meter reading reports provided were reviewed.



Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
March 2022	125	17	27	99.82%
April 2022	125	19	28	99.82%
May 2022	125	14	22	99.86%
June 2022	124	10	16	99.90%
July 2022	124	12	9	99.88%

I reviewed 19 ICPs not interrogated annually. 15 ICPs were either inactive, related to historic switch withdrawals where Globug were not recorded as the trader for any part of the ICP timeline on the registry, or the meter included in the report has been previously removed meaning these ICPs were false positive records. These erroneous entries in the meter read frequency report raises the question of the accuracy of the selection criteria used by this report and I recommend that Globug reviews the requirements and selection parameters used by the meter reading frequency reporting to ensure it is fit for purpose.

Description	Recommendation	Audited party comment	Remedial action
Meter Read Frequency reporting	Review the requirements and selection parameters used in the meter read frequency reporting to ensure only valid ICPs are included in the report.	Specifications of the report are still being worked through with our developer to ensure only valid ICPs are included.	Investigating

The remaining four ICPs were examined and found all were ICPs that are currently with Globug and the registry information shows the AMI meter as being non communicating for the last 12 months.

None had had any action taken on them since 2021 therefore best endeavours have not been proven.

#### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 6.9 With: 8(1) & (2) of schedule 15.2  From: 01-Sep-21 To: 30-Sep-22	Exceptional circumstances not proven for four ICPs not read in the past 12 months.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are rated as strong as they will mitigate risk most of the time but there is room for improvement.  The audit risk rating is low as the volume of ICPs affected by this is small.

Actions taken to resolve the issue	Completion date	Remedial action status
Site visits have now been raised for these ICPs. The four missing ICPs were down to human error. We are currently working on reporting improvements to mitigate the likeness of this error recurring.	May 2023	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
Process and reporting improvements were started last year however there was a lapse due to role changes. We will pick this back-up and ensure that it is within the timeframe provided.	May 2023	

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

##### Code reference

Clause 9(1) and (2) Schedule 15.2

##### Code related audit information

*In relation to each NSP, each reconciliation participant must ensure that for each NHH ICP at which the reconciliation participant trades continuously for each 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

The meter reading process was examined. Monthly reports for March 2022 to July 2022 were reviewed.

Unread ICPs on the NSPs where less than 90% read attainment was achieved for July 2022 were reviewed to determine whether exceptional circumstances existed.

##### Audit commentary

As discussed in **section 6.8**, there are processes in place to monitor read attainment, and attempt to resolve issues preventing read attainment. The monthly meter reading reports provided were reviewed.

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
March 2022	126	2	74	99.62%
April 2022	127	2	95	99.51%
May 2022	128	2	93	99.52%
June 2022	126	1	58	99.70%

Month	Total NSPs where ICPs were supplied > 4 months	NSPs <90% read	Total ICPs unread for 4 months	Overall percentage read
July 2022	128	0	53	99.72%

I reviewed the process Globug uses to identify and escalate where AMI meter readings are not received for more than three days. The process to identify these ICPs and notify the respective AMI MEP is robust. However, where the investigation and resolution of these non-communication issues by the MEP exceeds four months then the process to notify the customers to switch to an alternative trader or to transition these ICPs to Mercury is not consistently applied. I found that best endeavours requirement was not met, and exceptional circumstances did not exist for 51 ICPs.

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.10 With: 9(1) and (2) Schedule 15.2  From: 01-Sep-21 To: 30-Sep-22	Exception circumstances did not apply, and the best endeavours requirement was not met for 51 ICPs.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate as they will mitigate risk most of the time but there is room for improvement.  The audit risk rating is low as the volume of ICPs affected by this is small as all ICPs are metering installation category 1 and residential.		
Actions taken to resolve the issue		Completion date	Remedial action status
Once an investigation to resolve meter communication issues exceeds four months we will promptly transition the ICP to an alternative retailer. This will be monitored through reporting and training documents will be updated to reflect actions below to prevent further occurrence of the non-compliance.		June 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The process will be refined so that these ICPs can be identified within the third month of investigations and based on the service request information we will start to switch the ICP over to alternative retailer.		June 2023	

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

### Code reference

Clause 10 Schedule 15.2

### Code related audit information

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

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

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

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

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

### Audit observation

NHH data is collected by MEPs. The data collection processes were reviewed as part of their audits.

### Audit commentary

Compliance with this clause has been demonstrated by MEPs and is discussed in their audit reports.

### Audit outcome

Compliant

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

### Code reference

Clause 11(1) Schedule 15.2

### Code related audit information

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

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

### Audit observation

A registry list file was reviewed for the audit period to confirm that all AMI meters supplied by Globug have submission type NHH.

### Audit commentary

Globug does not deal with any HHR data, all ICPs have NHH submission type.

### Audit outcome

Not applicable

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

### Code reference

Clause 11(2) Schedule 15.2

### Code related audit information

*The following information is collected during each interrogation:*

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

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

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

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

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

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

#### **Audit observation**

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by Globug have submission type NHH.

#### **Audit commentary**

Globug does not deal with any HHR data, all ICPs have NHH submission type.

#### **As abAudit outcome**

Not applicable

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

#### **Code reference**

Clause 11(3) Schedule 15.2

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

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

11(3)(a) - the date of interrogation

11(3)(b) - the time of commencement of interrogation

11(3)(c) - the operator identification (if available)

11(3)(d) - the unique identifier of the meter or data storage device

11(3)(e) - the clock errors outside the range specified in Table 1 of clause 2

11(3)(f) - the method of interrogation

11(3)(g) - the identifier of the reading device used for interrogation (if applicable).

#### **Audit observation**

A registry list file was reviewed for the audit period to confirm that all AMI meters supplied by Globug have submission type NHH.

#### **Audit commentary**

Globug does not deal with any HHR data, all ICPs have NHH submission type.

**Audit outcome**

Not applicable

## 7. STORING RAW METER DATA

### 7.1. Trading period duration (Clause 13 Schedule 15.2)

#### Code reference

Clause 13 Schedule 15.2

#### Code related audit information

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

#### Audit observation

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by Globug have submission type NHH.

#### Audit commentary

Globug does not deal with any HHR data, all ICPs have NHH submission type.

#### As Audit outcome

Not applicable

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

#### Code reference

Clause 18 Schedule 15.2

#### Code related audit information

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

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

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

#### Audit observation

Processes to archive and store raw meter data were reviewed. Raw meter data from 2018 was reviewed to ensure that it is retained.

#### Audit commentary

When meter reading data reaches SAP 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 SAP.

I reviewed raw meter data from as early as 2018 recorded in SAP, confirming that meter reading data is retained for at least 48 months.

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 without an audit trail being created. Validation occurs in a temporary table before it becomes a permanent record and meter readings are not edited. I viewed these audit trails, and they are discussed in further detail in **section 2.4**.

No paper-based readings are received.

#### Audit outcome

Compliant

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

#### **Code reference**

*Clause 21(5) Schedule 15.2*

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

*All relevant non-metering information, such as external control equipment operation logs, used in the determination of profile data must be collected, and archived in accordance with clause 18.*

#### **Audit observation**

Globug does not deal with any non-metering information.

#### **Audit commentary**

Globug does not deal with any non-metering information.

#### **Audit outcome**

Compliant



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

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

#### Code reference

Clause 19(1) Schedule 15.2

#### Code related audit information

*If 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

Processes for correction of NHH meter readings were reviewed. A sample of ten corrections were reviewed.

#### Audit commentary

Where errors are detected during validation of non-half hour meter readings, the read is checked against other AMI data for the ICP. If an original meter reading cannot be confirmed as correct, an estimated reading is used. The processing of the estimated reads is discussed in **sections 2.1** and **12.7**.

#### Audit outcome

Compliant

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

#### Code reference

Clause 19(2) Schedule 15.2

#### Code related audit information

*If 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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by Globug have submission type NHH.

#### **Audit commentary**

Globug does not deal with any HHR data, all ICPs have NHH submission type.

#### **Audit outcome**

Not applicable

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

#### **Code reference**

*Clause 19(3) Schedule 15.2*

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

*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 discussed.

#### **Audit commentary**

Globug does 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) 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**

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

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

#### **Audit commentary**

Audit trails were reviewed for the sample of corrections discussed in **sections 2.1** and **8.1**. The correction journals and audit trails were compliant with the requirements of this clause.

#### **Audit outcome**

Compliant

## 9. ESTIMATING AND VALIDATING VOLUME INFORMATION

### 9.1. Identification of readings (Clause 3(3) Schedule 15.2)

#### Code reference

Clause 3(3) Schedule 15.2

#### Code related audit information

All estimated readings and permanent estimates must be clearly identified as an estimate at source and in any exchange of metering data or volume information between participants.

#### Audit observation

A sample of reads and volumes were traced from the source files to Globugs systems in **section 2.3**.

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

Correct identification of estimated reads, and review of the estimation process was completed in **section 8.1**.

#### Audit commentary

Readings are clearly identified as required by this clause.

The following CS files contained incorrect switch event read types:

ICP	CS event date	Incorrect information	Switch later withdrawn	Report section
0172640601LCE90	30 August 2022	The switch event read type was estimated but should have been actual.	Yes	4.10
0000036289CPF85	16 March 2022	The switch event read type was actual but should have been estimated.	No	4.16
0000004491UN7C5	27 August 2022	The switch event read type was actual but should have been estimated.	No	4.16
0000712065BU447	10 August 2022	The switch event read type was actual but should have been estimated.	No	4.16
1000026443BPA56	10 July 2022	The switch event read type was actual but should have been estimated.	No	4.16
0000231406WE77D	16 July 2022	The switch event read type was actual but should have been estimated.	No	4.16
0030146578PC368	19 August 2022	The switch event read type was actual but should have been estimated.	No	4.16
0000924398TU2AD	24 August 2022	The switch event read type was actual but should have been estimated.	No	4.16
0000004491UN7C5	27 August 2022	The switch event read type was actual but should have been estimated.	No	4.16

ICP	CS event date	Incorrect information	Switch later withdrawn	Report section
0409525030LC30A	8 September 2022	The switch event read type was actual but should have been estimated.	No	4.16

The following ICPs did not have the correct switch read type recorded in SAP:

ICP	CS event date	Incorrect information	Report section
0005082536RNBB8	29 October 2021	The agreed switch reading is actual but recorded as estimated in SAP.	4.4
0000741472TUAEA	31 August 2022	The agreed switch reading is estimated but recorded as actual in SAP.	4.11

### Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 9.1</p> <p>With: Clause 3(3) Schedule 15.2</p> <p>From: 01-Sep-21</p> <p>To: 30-Sep-22</p>	<p>Ten CS files contained incorrect read types.</p> <p>Two ICPs did not have the correct switch read type recorded in SAP.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>The controls are rated as moderate. The errors found related to manually released CS files.</p> <p>The audit risk rating is assessed to be low. Actual and estimated switch event readings are treated as permanent by the historic estimate process. Incorrect classification of switch event readings does not affect submission accuracy. Incorrect classification of estimated reads as actual in CS files can affect other traders' ability to issue read renegotiations under Clause 6 (2) and (3) Schedule 11.3 where they intend to settle the ICP as HHR.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
Training has been provided to the team on double checking the read type entered as.		January 2023	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
Regular internal audits will help in minimising errors and recognising whether there are any improvements required for compliance.	Ongoing	

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

### Code reference

Clause 3(4) Schedule 15.2

### Code related audit information

Volume information must be directly derived, in accordance with Schedule 15.2, from:

3(4)(a) - validated meter readings

3(4)(b) - estimated readings

3(4)(c) - permanent estimates.

### Audit observation

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

### Audit commentary

Review of submission data confirmed that it is based on readings as required by this clause.

SAP produces the submission data and SAP retrieves monthly reads from the EDM system using scheduled meter reading orders and these are validated in SAP for use to determine the volume information.

Where an AMI MEP has provided an estimate read which SAP retrieves for use in the submission process then this is also validated by SAP prior to be used in the submission process.

### Audit outcome

Compliant

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

### Code reference

Clause 3(5) Schedule 15.2

### Code related audit information

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

### Audit observation

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

I reviewed the method to receive meter reading information and traced a sample of reads for two ICPs per provider from the source files to Globug's systems in **section 6.5**.

### Audit commentary

AMI data is not rounded for AMS provided reads but is being rounded for IntelliHUB. The IntelliHUB readings are rounded to zero decimal places. The MEP retains the raw data with all decimals recorded. Rounding should not occur until volume information is created; therefore, non-compliance exists. Data is not rounded or truncated for AMS meters. Overall, there is little impact because all submission is NHH, therefore any minor over or under submissions in a month will be corrected in the next month.

### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 9.3 With: Clause 3(5) Schedule 15.2  From: 01-Sep-21 To: 30-Sep-22	Raw meter data is rounded upon receipt and not when volume information is created for IntelliHUB meters.  Potential impact: Low  Actual impact: None  Audit history: Multiple  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate and will mitigate risk to an acceptable level but there is room for improvement.  There is very little 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
A ticket was raised but due to the low priority has not progressed at this stage, it is on our radar to review and follow up.		June 2023	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As above.		NA	

### 9.4. Half hour estimates (Clause 15 Schedule 15.2)

#### Code reference

Clause 15 Schedule 15.2

#### Code related audit information

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

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

#### **Audit observation**

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by Globug have submission type NHH.

#### **Audit commentary**

Globug does not deal with any HHR data, all ICPs have NHH submission type.

#### **Audit outcome**

Not applicable

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

#### **Code reference**

*Clause 16 Schedule 15.2*

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

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

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

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

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

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

#### **Audit observation**

I reviewed and observed the NHH data validation process, including checking a sample of data validations, and review of SAP system parameters for read and consumption validation.

#### **Audit commentary**

The read data validation process includes:

- checks that the data relates to an ICP, meter and register held within the system,
- checks for missing data and that reads are loaded against orders, any outstanding orders are investigated to determine why a read was not received,
- the read import process identifies reads with invalid dates and times, or a date that does not match the expected read order date, it will also identify obvious data corruption,
- billing validations, including checks for high reads and reads lower than previous will identify consumption not in line with the history for the ICP or unexpected zero values, and
- it is not possible to enter a read for a period which has already been billed.

If a read is not validated, it will not be used by the billing or reconciliation process.

Globug store their reads in the EDM database. This contains all readings received from MEPs and it accepts estimated readings from IntelliHUB and it has its own estimation capability. These estimates are validated in the same way as actual readings.



The credit team monitors meters with zero consumption, and consumption on vacant and disconnected ICPs. Where consumption is identified on vacant ICPs a field visit is conducted to identify whether there is a customer requiring registration, or whether the normal “dunning” process needs to start so the ICP is ultimately disconnected. Submission occurs for all vacant consumption regardless of whether it is billed or not. I confirmed that vacant consumption is included in submission files by checking ten ICPs that were vacant with consumption recorded. Disconnected ICPs with consumption are monitored, and if consumption occurs an investigation commences.

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 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 reviewed and observed the AMI data validation processes, including checking a sample of data validations and validation setting documentation.

#### Audit commentary

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

NHH AMI data is provided by MEPs via SFTP. Meter event information is provided and reviewed as follows:

MEP	Provided by	Meter event information provided and reviewed
AMS	AMS	Full event information is provided via SFTP. AMS raise their own service requests for any events that require action and Globug are advised of this via email.
IntelliHUB (MTRX)	IntelliHUB	Full event information is provided via SFTP. Any events that require action by Globug are advised via email so a service request can be raised.

**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

The process for the calculation of NHH ICP days was examined by checking 50 NSPs for the August 2022 revision 1 submission to confirm the AV110 ICP days calculation was correct.

I reviewed GR100 reports from February 2021 to August 2022 and investigated a diverse sample of ten NSP level ICP days differences, to determine why the difference had occurred.

Alleged breaches were reviewed.

## Audit commentary

The process for the calculation of ICP days was examined for the August 2022 R1 submission by comparing the active ICP days from a registry LIS history report to the Globug AV-110 report created around the same time across 128 NSPs. This comparison identified 88 exceptions.

Five differences were where the registry calculation of ICP days were greater than Globug's calculation and 83 where the Globug calculation of ICP days exceeded the registry calculation. A sample of 10 NSPs were reviewed to identify the reason for these differences and found they all related to timing differences, and the current registry days for each period NSP and submission type matched the latest submission data.

I examined ten NSPs with differences remaining at revision 7 or later on the GR100 ICP days comparison reports. The ICP days differences for nine NSPs was due to submission occurring correctly and the ICP day count was correct, but the ICP was at the incorrect status on the registry. 31 ICPs were identified across these nine NSPs and these are detailed below:

ICP	Inactive period where consumption volume was reported
0000063655TR7C7	20 February 2021 to 26 May 2021
0000063653TR648	Ten days in February 2021
1001148077CKA03	Six days in February 2021
1001148078CK5DD	16 November 2020 to 10 July 2021
0000056945TR469	Inactive from 21 October 2020
0000064422TR137	Inactive from 7 April 2021
0002330103BUD7C	Inactive from 5 July 2020
0002432085BU6F6	Inactive from 12 January 2020
0002127623BUB72	3 March 2021 to 12 March 2021 and from 17 March 2021 to 10 April 2021
0001821439BU85F	Inactive from 17 December 2020 to 25 March 2021
0002330406BU536	3 May 2021 to 9 May 2021
0001290845TGAFB	Inactive from 19 February 2021 to 2 March 2021 and from 7 March 2021 onwards
0001300010TGC19	Inactive from 16 June 2021
0001300025TG6AE	Inactive from 20 June 2021
0080330101WR6BF	3 June 2020 to 28 June 2022
0080330101WR6BF	3 June 2020 to 28 June 2022
0080264000WR266	Inactive from 23 March 2021

0080776103WR1D0	Inactive from 9 March 2021
0000062754CPD6D	7 March 2021 to 22 March 2021 and from 23 April 2021
0000062357CPDAC	23 April 2021 to 7 May 2021 and from 30 May 2021
0000164775TR39A	15 February 2021 to 22 February 2021 and 14 March 2021 to 29 March 2021
0000146954TREOC	Inactive from 6 March 2021
0000165823TR4B2	Inactive on registry from 1 March 2021 till 31 March 2021, in files, submission was from 24 March 2021 to 31 March 2021
0000154393TR582	Inactive from 11 May 2021
0004302928TU75A	11 February 2021 to 28 February 2021
0000441416TU8A4	12 March 2021 to 22 March 2021, 6 May 2021 to 18 May 2021, 1 June 2021 to 15 June 2021
0110006750EL4E7	Inactive from 22 February 2021
0015882425EL360	5 May 2021 to 22 May 2021
0110001046EL4A7	Inactive from 14 June 2021 submitted till 10 June 2021
0033872366PCF22	8 May 2021 to 23 May 2021 and 5 June 2021 to 5 July 2021
0033872249PC4AD	Inactive from 6 June 2021

This is recorded as non-compliant in **sections 3.9** and **2.1**. Globug was not able to explain the reason for the difference for the other NSP (STK0331 – April 2021).

Where Globug's system detects consumption between actual reads then it will calculate historic estimate values irrespective of whether the ICP is active or inactive. As disconnection and reconnection reads are not consistently applied within SAP, the consequence is that Globug over reports ICPs days values for these inactive periods with consumption. While Globug is correctly reporting the relevant ICP days from the consumption information used to create its AV-080 submission file, the consequence is that submission volumes are not being reported for active periods only and the small over reporting of ICP days does mask other set up related issues Globug may be experiencing for the same point of connection.

A recommendation to enter disconnection and reconnection boundary readings is made in **section 2.1**.

The following table shows the ICP days difference between Globug files and the RM return file (GR100) for as selection of revisions for eight months. Negative percentage figures indicate that the Globug ICP days figures are higher than those contained on the registry.

Month	r0	r1	r3	r7	r14
Feb 2021	-	-	-	-1.23%	-1.22%
Mar 2021	-	-	-	-1.17%	-1.16%

Month	r0	r1	r3	r7	r14
Apr 2021	-	-	-	-1.21%	-1.20%
May 2021	-	-	-1.04%	-1.18%	-1.17%
Jun 2021	-	-	-1.02%	-1.19%	-1.15%
Jun 2022	-0.98%	-1.04%	-	-	
Jul 2022	-0.86%	-1.03%	-	-	
Aug 2022	-0.85%	-	-	-	

No breaches were alleged for late provision of submission information.

#### 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

The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs for the month of August 2022 to confirm the AV120 calculation was correct.

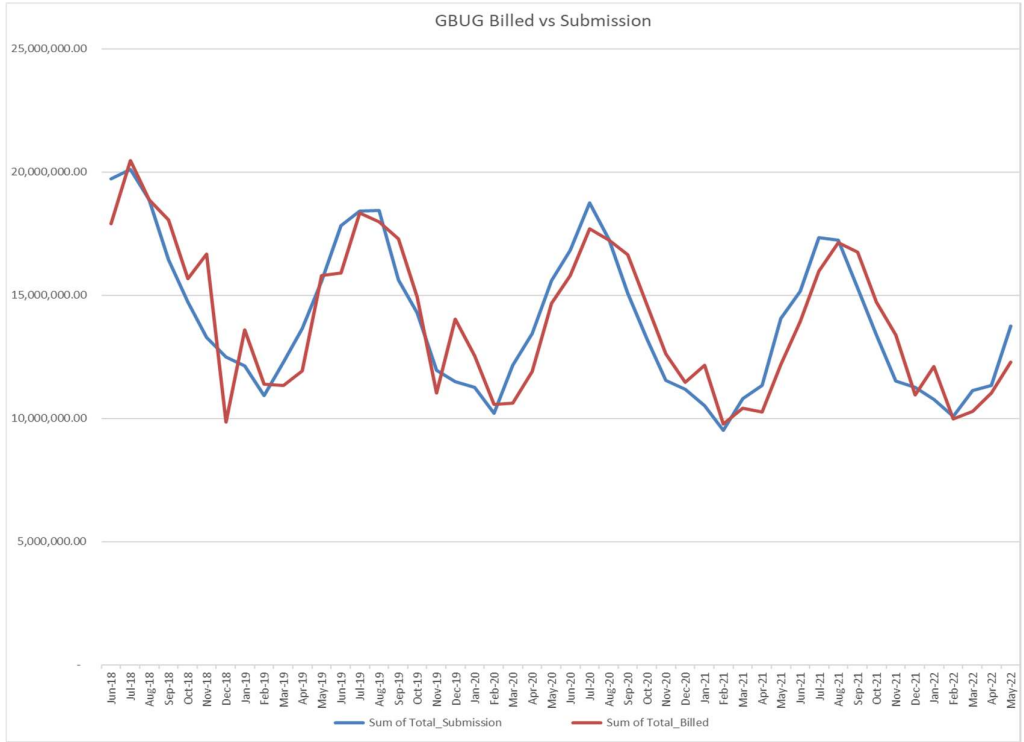
GR130 reports for June 2018 to May 2022 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

#### Audit commentary

The process for the calculation of as billed volumes was examined by checking five NSPs with a small number of ICPs against Globug's invoice information for August 2022. The file is correct for the sample checked.

The table below shows a comparison between submissions and electricity supplied information. At an aggregate level, submitted data is 0.2% lower than billed data for the year ended May 2022 and 0.3% lower than billed date for the two years ended May 2022.





Globug has four ICPs that have been assigned shared unmetered load by the respective distributor. Globug does not pass on the cost of this shared unmetered load onto the customer but does include these unmetered volumes in its AV-080 NHHVOLS submission.

While Globug has decided not to bill customers for this unmetered load it has under the definition of “electricity supplied”, supplied the customer this consumption therefore included unmetered volumes in this file to the reconciliation manager.

**Audit outcome**

Non-compliant

Non-compliance	Description
Audit Ref: 11.3 With: Clause 15.7  From: 01-Sep-21 To: 30-Sep-22	Unmetered load volumes for four ICPs not included in electricity supplied report.  Potential impact: Low  Actual impact: Low  Audit history: Once  Controls: Moderate  Breach risk rating: 2
Audit risk rating	Rationale for audit risk rating
<b>Low</b>	The controls are recorded as moderate because while all billed volume is included in this file, no consideration was made to include unmetered loads that has been supplied but not invoiced.  The impact on settlement and participants is minor therefore, the audit risk rating is low.

Actions taken to resolve the issue	Completion date	Remedial action status
<p>We disagree with the comments regarding the impact on settlement and other participants as from our point of view the impact is nil as all the volumes for the unmetered are captured and reported in our NHH submission file. The unmetered load is not captured as part of the AV080 "As Billed" as we do not bill our customers for the unmetered load.</p> <p>A Service Request has been created to make the required change to ensure the As Billed file is correct.</p>	June 2023	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>A Service Request has been created to make the required change to ensure the As Billed file is correct.</p>	June 2023	

#### 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

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by Globug have submission type NHH.

##### Audit commentary

Globug does not deal with any HHR data, all ICPs have NHH submission type.

##### Audit outcome

Not applicable

## 12. SUBMISSION COMPUTATION

### 12.1. Daylight saving adjustment (Clause 15.36)

#### Code reference

Clause 15.36

#### Code related audit information

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

#### Audit observation

A registry list file was reviewed for the audit period to confirm that all HHR meters supplied by Globug have submission type NHH.

#### Audit commentary

Globug does not deal with any HHR data, all ICPs have NHH submission type.

#### Audit outcome

Not applicable

### 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

A sample of NHH ICPs were checked to make sure they are handled correctly, and corrections were reviewed in **sections 2.1** and **8.1**.

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

#### Audit commentary

No breaches had been recorded for late provision of submission information.

Globug prepares submission information using SAP. A sample of NHH ICPs were checked to make sure they are handled correctly, including vacant, disconnected, and unmetered ICPs.

### Vacant ICPs with consumption

I checked a sample of five ICPs with vacant consumption. The consumption was correctly submitted for all five ICPs.

### Inactive ICPs with consumption

A list of 43 ICPs with inactive consumption was provided. A sample of five ICPs with inactive consumption were reviewed. Four were confirmed not to have any genuine consumption as the inactive consumption was estimated. ICP 0000010975HR5B6 was confirmed to have a small amount of genuine consumption (44 kWh). The registry records this as inactive from 11 August 2022 (switch gain date) to 22 August 2022 but the submission was for the period 11 August 2022 to 31 August 2022.

Additionally, 31 ICPs were identified in **section 11.2** where consumption volumes were apportioned across inactive periods.

The incorrect status is recorded as non-compliance in **sections 2.1**, and **3.9**, and incorrect apportionment of submission data is recorded as non-compliance in **section 12.7**.

### Unmetered load

I checked all ICPs with unmetered load and confirmed that volumes are being correctly submitted.

### Distributed generation

I checked all five ICPs with distributed generation indicated by the distributor and found that no generation volumes have been submitted as there was no import export metering installed, as this is incompatible with the Globug product. This is discussed in **section 6.1**.

### ICPs supplied for one day

The previous audit found that where ICPs switched out after one day of supply (usually due to being unable to install AMI metering) Globug applied the incoming switch read for the previous day as the outgoing CS read. I identified 495 ICPs with a 1-day period of supply during the audit period and checked the incoming and outgoing CS files for a sample of 70. For 48 CS files the outgoing CS read was higher than the incoming CS reading, but for the other 22 files the incoming and outgoing readings matched.

Globug ideally wants the customers to switch from the previous trader straight to an alternative trader or in most cases to Mercury, but the other traders are not compelled to accept a withdrawal and then a new switch request from an alternative trader or Mercury. This will result in one day of consumption being pushed to the gaining trader and reconciled in the incorrect period.

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.2 With: Clause 15.4  From: 01-Sep-21	Generation information not submitted for five ICPs with distributed generation present. Consumption information was not submitted for at least 22 ICPs which were supplied for one day before switching to an alternative trader. Potential impact: Low Actual impact: Low Audit history: Twice Controls: Moderate

To: 30-Sep-22	Breach risk rating: 2		
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>		
<b>Low</b>	<p>The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.</p> <p>The impact on settlement and participants is minor therefore, the audit risk rating is low.</p>		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
<p><b>Generation information not submitted for five ICPs with distributed generation present:</b></p> <p>ICPs are no longer with Globug as highlighted in 6.1.</p> <p><b>Consumption information was not submitted for at least 22 ICPs which were supplied for one day before switching to an alternative trader:</b></p> <p>Where Globug cannot supply an ICP due to metering issues, we work to switch the ICP out immediately. In most cases the ICP is with Globug for only one day. Ideally in these cases the Globug trader time slice would be removed entirely however this would cause further delay and create additional work for participants. We believe our current process has minimal impact on the market and other participants.</p> <p>We have followed the same process and have not made any changes.</p>		December 2022	Identified
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	
Once ICP checker is updated with new logic - ICP checker logic and exceptions will be monitored frequently by the team to pick up any discrepancies.		Ongoing	

### 12.3. Allocation of submission information (Clause 15.5)

#### Code reference

Clause 15.5

#### Code related audit information

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

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

#### Audit observation

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

The process to ensure that AV080 submissions are accurate was discussed, and reports used in the process were viewed.

The process for aggregating the AV080 was examined by checking the total submitted against each aggregation factor combination against detailed ICP level information for the April 2021 revision 14 submission.

The GR170 to AV080 files for nine revision submissions were compared, to confirm zeroing occurs.

**Audit commentary**

The process for the calculation of NHH volumes was examined by checking five NSPs with a small number of ICPs. The NHH volume calculation was confirmed to be correct.

The Energy Services team check NHH submissions against balancing data received from the reconciliation manager and NSP notifications using an Access database. This process identifies and adds any zero rows that are needed and confirms that the before and after volume totals remain the same.

Reconciliation submissions are reviewed for completeness and accuracy prior to submission. I walked through the review process, including viewing evidence of previous submission reviews.

The NHH pre-submission review process includes:

- GXP level comparison to the same period last year and previous month for initial submission; for revision submissions, a comparison to previous submissions for the month is also completed and if anomalies are identified, it is possible to drill down to ICP level to identify and investigate the cause of the difference,
- ICPs with consumption over 70,000 kWh are checked against a list of known high users; any ICPs with high consumption not on the list will be investigated and added to the list, if necessary, and
- exception reports are run to identify possible situations where meter rollovers have not been processed correctly, usually due to an incorrect number of dials being recorded; these are then investigated and corrected.

The 70,000 kWh threshold is very high for a trader such as Globug where all ICPs are metering installation category 1 with single phase whole current meters and predominantly residential. There were a number of examples in the submission accuracy between revisions described in **section 12.12** where meter reprograms from two registers into one were not completed in SAP in time for submissions and resulted in large initial over submissions exceeding 25,000 kWh. I recommend that Globug considers a more appropriate ICP level consumption threshold in the AV-080 data creation process.

Description	Recommendation	Audited party comment	Remedial action
High consumption threshold	Globug considers a more appropriate ICP level consumption threshold in the AV-080 data creation process reflective of the size and type of customer.	We already have a high bill process / report which is generated daily and records are fixed. We do get a few anomalies however due to timing, they are corrected and washed up.	Investigating

All pre-submission checks are reviewed by the Commercial Operations & Reconciliation Manager, who provides approval via email.

GR170 and AV080 files for nine months were compared, and found to contain the same NSPs and totals, confirming that zeroing is occurring as required.

#### 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, and compliance was not assessed.

#### Audit outcome

Not applicable

### 12.5. Provision of NSP submission information (Clause 15.10)

#### Code reference

Clause 15.10

#### Code related audit information

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

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

#### Audit observation

The registry list and NSP table were reviewed.

#### Audit commentary

Globug is not a local or embedded network owner, and 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, and 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

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

### Audit commentary

#### Late provision of submission information

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

#### Accuracy of submission data

There were some submission inaccuracies identified.

- As recorded in **section 2.1**, ICP 0000010975HR5B6 was confirmed to have a small amount of genuine consumption (44 kWh) allocated to the incorrect consumption period. The registry records this as inactive from 11 August 2022 (switch gain date) to 22 August 2022 but the submission was calculated across the entire read to read period 11 August 2022 to 1 September 2022. Because Globug's submission system assigns consumption volumes between actual reads irrespective of an ICPs status, this has resulted in some consumption being apportioned into incorrect consumption periods and the allocation of consumption across the inactive period resulted in an over reporting of retailer ICP days.



- IntelliHUB does not provide updated actual data to replace estimates if the actual data is obtained more than 15 days after the event date. This is non-compliance because more accurate information is available but is not used.
- As recorded in **section 11.3**, Electricity Supplied report does not include unmetered load volumes.
- As recorded in **section 12.2**, generation information not submitted for five ICPs with distributed generation present.
- Consumption information was not submitted for at least 22 ICPs which were supplied for one day before switching to an alternative trader, because Globug supplied the incoming CS read in the outgoing CS file rather than an actual read or the best estimate of consumption for the day supplied. The affected ICPs did not meet Globug’s supply requirements, and the switches were turned down and switched out. The process for these ICPs is discussed in detail in **section 4.16**.
- As detailed in **sections 4.3** and **4.10** the five CS files contained incorrect CS event reads and were not withdrawn, leading to incorrect submission information.

ICP	Incorrect information	Over (-) or under (+) submission	Switch later withdrawn	Report section
0471409359LCFEE 4 October 2021	The was ICP supplied for one day, and the switch event reading was recorded as the same as the switch in reading for the day before, with an estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 5 kWh.	+5 kWh	No	4.3
0005196949RN73A 13 August 2021	The switch event reading was recorded as 54252 (E) but should have been 54117 (A) resulting in over recording of 135 kWh.	-135 kWh	No	4.3
0010390412EL164 21 September 2021	The ICP supplied for one day, and the switch event readings were recorded as the same as the switch in reading for the day before, with an estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 4 kWh.	+4 kWh	No	4.10
0030340230PC1C3 18 September 2021	The ICP supplied for one day, and the switch event reading was recorded as the same as the switch in reading for the day before, with an estimated read type. Based on the estimated average daily kWh for the incoming CS this resulted in under recording of 29 kWh.	+29 kWh	No	4.10
0000100793DE4A0 12 August 2022	The ICP supplied for one day, and: RD14012641/1 switch event read 11 August 2022 29545 (E) and outgoing read 12 August 2022 26562 (E) a difference of -2983 kWh. The estimated reading is incorrect.	-2,983 kWh	No	4.10

ICP	Incorrect information	Over (-) or under (+) submission	Switch later withdrawn	Report section
	RD14012642/1 switch event read 11 August 2022 20752 (E) and outgoing read 12 August 2022 20770 (E) a difference of +18 kWh.			

- The following ICPs did not have the agreed switch reading recorded in SAP, leading to incorrect submission information.

ICP	Incorrect information	Over (-) or under (+) submission	Report section
0000022439WED82 24 May 2022	The agreed switch read is 12472 (E) but 13473 (E) is applied in SAP resulting in over submission of 1,001 kWh.	-1,001 kWh	4.11
0430927037LCBBC 05 March 2022	The agreed switch read is 48438 (E) but 48488 (E) is applied in SAP resulting in over submission of 50 kWh.	-50 kWh	4.11

### Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 12.7</p> <p>With: Clause 15.12</p> <p>From: 01-Sep-21</p> <p>To: 30-Sep-22</p>	<p>Inaccurate submission as follows:</p> <ul style="list-style-type: none"> <li>five CS files contained inaccurate CS event readings resulting in under or over submission,</li> <li>two ICPs did not have the agreed switch reading recorded in SAP, leading to incorrect submission information,</li> <li>consumption apportioned incorrectly between consumption periods for disconnected ICP 0000010975HR5B6 with consumption recorded during the inactive period,</li> <li>Intellihub does not provide raw meter data to replace estimates for periods greater than 15 days; the quantity of estimates remaining is unknown,</li> <li>Electricity Supplied report does not include unmetered load volumes, and</li> <li>generation information not submitted for five ICPs with distributed generation present.</li> </ul> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Once</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
<b>Audit risk rating</b>	<b>Rationale for audit risk rating</b>

<b>Low</b>	Controls are rated as moderate overall but there is room for improvement. The audit risk rating is assessed to be low due to the small amount of under submission.		
<b>Actions taken to resolve the issue</b>		<b>Completion date</b>	<b>Remedial action status</b>
<p><b>Five CS files contained inaccurate CS event readings resulting in under or over submission,</b></p> <p><b>Two ICPs did not have the agreed switch reading recorded in SAP, leading to incorrect submission information:</b></p> <p>Focused training to be provided to ensure content in the CS file are covered thoroughly.</p> <p><b>Consumption apportioned incorrectly between consumption periods for disconnected ICP 0000010975HR5B6 with consumption recorded during the inactive period:</b></p> <p>As highlighted in 3.9 - We will be reviewing our process documentation and providing training to staff to ensure consumption is accurately captured and processed correctly for disconnected ICPs.</p> <p><b>IntelliHUB does not provide raw meter data to replace estimates for periods greater than 15 days; the quantity of estimates remaining is unknown:</b></p> <p>Raw meter data is provided from IntelliHUB up to 60 days.</p> <p><b>Electricity Supplied report does not include unmetered load volume:</b></p> <p>Please refer to comments on 11.3.</p> <p><b>Generation information not submitted for five ICPs with distributed generation present:</b></p> <p>ICPs are no longer with Globug and have been switched over to alternative retailers.</p>		<p>January 2023</p> <p>January 2023</p> <p>January 2023</p> <p>June 2023</p> <p>December 2022</p>	<p>Identified</p>
<b>Preventative actions taken to ensure no further issues will occur</b>		<b>Completion date</b>	
<p><b>Five CS files contained inaccurate CS event readings resulting in under or over submission,</b></p> <p><b>Two ICPs did not have the agreed switch reading recorded in SAP, leading to incorrect submission information:</b></p> <p>Regular internal audit will help minimising the error and recognise if there are any more improvements to be compliant.</p> <p><b>Electricity Supplied report does not include unmetered load volume:</b></p> <p>Please refer to comments on 11.3.</p> <p><b>Generation information not submitted for five ICPs with distributed generation present:</b></p>		<p>Ongoing</p> <p>June 2023</p> <p>March 2023</p>	

With the ICP check logic updates highlighted in 6.1 – we do not anticipate taking on any ICPs that generate or distribute moving forward.		
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## 12.8. Permanence of meter readings for reconciliation (Clause 4 Schedule 15.2)

### Code reference

Clause 4 Schedule 15.2

### Code related audit information

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

*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

AV080 14-month revisions were reviewed for February, March and April 2021 to identify any forward estimate still existing.

### Audit commentary

The process is that all estimates are made permanent at six months, prior to the 7-month revision. All 7 and 14-month revisions have 100% HE recorded. This clause requires Globug to use reasonable endeavours to obtain a meter reading before an estimate can be made permanent. In **section 6.9**, it is recorded that the reasonable endeavours threshold has not been met to obtain meter readings at the 12-month point for ten ICPs.

### Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 12.8 With: 4 of schedule 15.2  From: 01-Sep-21 To: 30-Sep-22	Permanent estimates applied when exceptional circumstances not proven for ten ICPs not read in the past eight months.  Potential impact: Low  Actual impact: Low  Audit history: Once  Controls: Strong  Breach risk rating: 1

Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	<p>The controls are rated as strong overall and will mitigate risk to an acceptable level.</p> <p>The audit risk rating is low as the volume of ICPs affected by this is small.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
We have reviewed our current processes for permanent estimates and have confirmed that they are strong.		January 2023	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As mentioned in our comments for 6.9 and 6.10, we have implemented processes to help reduce the risk of ICPs not being read and ensure we are making reasonable endeavours. Overall we have increased our focus on this issue.		June 2023	

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

### Code reference

Clause 2 Schedule 15.3

### Code related audit information

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

Aggregation and content of reconciliation submissions was reviewed.

### Audit commentary

Compliance with this clause was assessed:

- all ICPs have metering category 1 and are submitted as NHH,
- unmetered load submissions were checked in **section 12.2** and found to be compliant,
- no profiles requiring a certified control device are used,
- no loss or compensation arrangements are required, and
- aggregation of the AV080 and AV110 reports is compliant.

### Audit outcome

Compliant

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

### Code reference

*Clause 3 Schedule 15.3*

### Code related audit information

*For each ICP that has a non-half hour metering installation, volume information derived from validated meter readings, estimated readings, or permanent estimates must be allocated to consumption periods using the 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 reviewed nine AV080 submissions for revisions 3 to 14, to confirm that historic estimates are included and identified.

Permanence of meter readings is reviewed in **section 12.8**. The methodology to create forward estimates is reviewed in **section 12.12**.

### Audit commentary

I reviewed nine AV080 submissions for a diverse sample of months and revisions and confirm that forward and historic estimates are included and identified as such.

### Audit outcome

Compliant

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

### Code reference

*Clauses 4 and 5 Schedule 15.3*

### Code related audit information

*The methodology outlined in clause 4 of Schedule 15.3 must be used when preparing 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<sub>Px</sub> 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<sub>Px</sub>.*

#### Audit observation

To assist with determining compliance of the Historical Estimate (HE) processes, Globug was supplied with a list of scenarios, and for some individual ICPs a manual HE calculation was conducted and compared to the result from SAP.

#### Audit commentary

Globug provided examples of historic estimate calculations, which were reviewed. The check of calculations included confirming that readings and Seasonal Adjustment Shape Values (SASV) were applied correctly.

The process for managing shape files was examined. There is an automated process where the RM web server is polled for new files, which are moved to the system production files. I viewed the data capture process and noted that files had been processed as expected, and the most recent files were available.

The provided example for scenario A (ICP 0000010975HR5B6 - ICP becomes “active” part way through a month) did not have a reconnection read entered therefore the historic estimate calculation was performed between the read from and read to dates and for some of this period the ICP was inactive, and consumption did not occur during this inactive period. The consequence to submission is that while all consumption is recorded, some volume (44 kWh) was apportioned out of the active period/consumption month and to the inactive period/consumption month. The registry records this as inactive from 11 August 2022 (switch gain date) to 22 August 2022 but the submission was calculated across the entire read to read period 11 August 2022 to 1 September 2022. Because Globug’s submission system assigns consumption volumes between actual reads irrespective of an ICPs status, this has resulted in some consumption being apportioned into incorrect consumption periods and the allocation of consumption across the inactive period resulted in an over reporting of retailer ICP days. Where a status boundary read is applied within Globug’s system the historic estimation calculation is applied correctly for this scenario. A recommendation is raised in **section 2.1** regarding ensuring that disconnection and reconnection status boundary readings are entered into Globug’s system. The incorrect status is recorded as non-compliance in **sections 2.1**, and **3.9**, and incorrect apportionment of submission data is recorded as non-compliance in **section 12.7**.

For the provided example for scenario L (Network/GXP/Connection (POC) alters partway through a month), the manual calculation produced as result that was 30 kWh more than the SAP produced result. Globug’s ICT team is investigating to determine what the cause for the issue is.

Test	Scenario	Test expectation	Result
a	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Compliant
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Compliant
c	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Compliant
d	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Compliant

Test	Scenario	Test expectation	Result
e	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Compliant
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Compliant
g	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
h	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
i	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Compliant
j	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Compliant
k	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Compliant
l	Network/GXP/Connection (POC) alters partway through a month.	Consumption is separated and calculated for the separate portions of where it is to be reconciled to.	Non-compliant
m	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate, unless they have been validated against a set of validated readings from another source	Not Found
n	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate, unless they have been validated against a set of validated readings from another source	Not Found
o	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly	No meters have a multiplier greater than one

#### Audit outcome

Non-compliant



Non-compliance	Description		
Audit Ref: 12.11 With: Clauses 4 and 5 Schedule 15.3  From: 01-Sep-21 To: 30-Sep-22	Historic estimate calculation incorrect for scenario L (Network/GXP/Connection (POC) alters part way through a month.  Potential impact: Low  Actual impact: Low  Audit history: None  Controls: Moderate  Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate because for scenario L the incidence is also low, and the affected volumes are small.		
Actions taken to resolve the issue		Completion date	Remedial action status
From our point of view the impact is virtually nil as the only difference is due to rounding.		NA	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As above		As above.	

## 12.12. Forward estimate process (Clause 6 Schedule 15.3)

### Code reference

Clause 6 Schedule 15.3

### Code related audit information

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

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

### Audit observation

The process to create forward estimates was reviewed.

Forward estimates were checked for accuracy by analysing the GR170 file for variances between revisions for 14 months.

### Audit commentary

Globug's forward estimates are based on either:

- historic readings, or
- historic daily average consumption based on price plan and billing group.

Globug’s forward estimate process also includes a “factoring” process, which involves the use of the average of the previous two-year’s profile shape. This ensures that submission information is not understated or overstated during “shoulder” months.

Globug uses the EDM database for meter readings. This database contains all readings received from MEPs and when a reading is required, a “meter reading order” will attempt to get a read from EDM for the date of the order, or from two days either side. This broader window will improve meter reading attainment. EDM accepts estimated readings from IntelliHUB and EDM also has an estimation capability. If there is no estimate from IntelliHUB or by EDM (due to no history) then SAP creates an estimate. The estimation methodology for EDM is explained in a document called “ADR-007 Enhancement Design”. The estimation methodology uses historic consumption, with a weighting factor depending on the average temperature in the relevant region the ICP is located in. There are a number of validations in place to ensure incorrect estimates are not created. As mentioned above, if EDM cannot create an estimate, SAP will estimate. The validations are as follows:

- profile is not defined as cumulative,
- interval length is not DAY,
- date range parameter is not valid,
- last known profile value could not be found,
- yearly periodic consumption could not be determined,
- fixed consumption per day is negative,
- temperature area not assigned to Installation,
- no weighting could be determined, and
- consumption per degree day weight is negative.

If an ICP is vacant and an estimate is supplied by an MEP, the estimate will fail validation and will be manually changed to zero.

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within 15%. I reviewed four examples where the difference to the initial submission exceeded 15% and volume impact exceeded 25,000 kWh. In all four cases the cause of the inaccuracy was due to delayed meter reprogramming (two registers reprogrammed to one register) processing resulting in the revised meter reading for register one being included in submission without first a reset of the register reads being performed.

**Quantity of balancing areas with differences over 15%**

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Jul 2020	1	1	2	2	308
Aug 2020	2	3	3	4	309
Sep 2020	1	3	3	4	311
Oct 2020	0	1	0	1	311
Nov 2020	6	5	4	6	312
Dec 2020	5	5	5	6	312

Month	Revision 1	Revision 3	Revision 7	Revision 14	Total Balancing Areas
Jan 2021	13	11	12	12	316
Feb 2021	8	7	7	7	294
Mar 2021	0	1	2	2	293
Apr 2021	1	2	2	1	295
May 2021	0	1	1		295
Jun 2021	4	5	5		300
Jul 2021	3	3	3		303
Aug 2021	4	4	4		307
Sep 2021	0	0	1		311
Oct 2021	8	7	8		312
Nov 2021	3	1	1		312
Dec 2021	9	6			312
Jan 2022	4	4			313
Feb 2022	3	2			316
Mar 2022	2	1			318
Apr 2022	3	1			317
May 2022	1	1			323
Jun 2022	2				326
Jul 2022	2				333

The total variation between revisions at an aggregate level is shown below.

Month	Revision 1	Revision 3	Revision 7	Revision 14
Jul 2020	-0.35%	-1.99%	-2.16%	-2.15%
Aug 2020	-1.32%	-3.00%	-3.07%	-2.97%
Sep 2020	-0.13%	-1.29%	-1.47%	-1.44%
Oct 2020	0.17%	-1.84%	-1.01%	-0.88%
Nov 2020	-0.73%	-1.02%	-1.08%	-1.02%
Dec 2020	-1.66%	-3.40%	-3.35%	-3.38%
Jan 2021	0.75%	-0.45%	-0.35%	-0.35%
Feb 2021	-1.13%	-1.72%	-1.77%	-1.80%
Mar 2021	-0.72%	-0.56%	-0.65%	-0.68%
Apr 2021	-2.24%	-0.80%	-0.90%	-0.98%
May 2021	-2.46%	-1.99%	-2.15%	
Jun 2021	-0.45%	0.23%	0.10%	
Jul 2021	-0.69%	-0.74%	-0.76%	
Aug 2021	0.15%	-0.79%	-0.89%	
Sep 2021	-0.76%	-0.42%	-0.50%	
Oct 2021	-3.54%	-3.29%	-3.39%	
Nov 2021	-0.40%	-0.22%	-0.44%	
Dec 2021	-1.48%	-1.10%		
Jan 2022	-0.42%	0.28%		
Feb 2022	-1.22%	-1.48%		
Mar 2022	-0.48%	-0.25%		

## Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 12.12 With: Clause 6 Schedule 15.3 From: 01-Sep-21 To: 30-Sep-22	Submission accuracy not met for all consumption periods. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are recorded as moderate because some erroneous data was included in the submission process resulting in submissions accuracy not being met. The impact is considered low as revisions did improve the overall accuracy of these submissions.		
Actions taken to resolve the issue		Completion date	Remedial action status
As noted, for the four examples reviewed where the difference to the initial submission exceeded 15% and volume impact exceeded 25,000 kWh, the inaccuracies were caused by the delay in reprogramming meters (two registers reprogrammed to one register). We are currently investigating why this has occurred and will take appropriate action to ensure this is not recurring going forward.		March 2023	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As above.		As above.	

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

#### Code reference

Clause 7 Schedule 15.3

#### Code related audit information

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

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

#### Audit observation

The registry list, event detail report, and AC020 trader compliance report were reviewed to determine compliance.

**Audit commentary**

Globug has only used the RPS profile and there have been no profile changes. In the event of a profile change, Globug will use a validated meter reading or a permanent estimate on the day that the change is effective.

**Audit outcome**

Compliant

## 13. SUBMISSION FORMAT AND TIMING

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

#### Code reference

*Clause 8 Schedule 15.3*

#### Code related audit information

*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

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

Aggregation of NHH volumes is discussed in **section 12.3**.

#### Audit commentary

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

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

NHH volumes aggregation was confirmed to be compliant. The submitted data was also compared to billed data in **section 11.3** and appeared reasonable.

#### Audit outcome

Compliant

### 13.2. Reporting resolution (Clause 9 Schedule 15.3)

#### Code reference

Clause 9 Schedule 15.3

#### Code related audit information

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

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

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

#### Audit observation

I reviewed the rounding of data on the AV080 reports as part of the aggregation checks.

#### Audit commentary

Submission information is rounded to no more than two decimal places.

#### Audit outcome

Compliant

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

#### Code reference

Clause 10 Schedule 15.3

#### Code related audit information

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

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

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

#### Audit observation

The timeliness of submissions of historic estimate was reviewed in **section 12.2**.

I reviewed nine months of AV080 reports to determine whether historic estimate requirements were met.

#### Audit commentary

The quantity of historical estimates is contained in the submission file and is not a separate report. Historic estimate targets were met for all revisions. Historic estimate is 100% from the 7-month revision on, because Globug is making all estimates permanent at the 6-month point. This is discussed further in **section 12.8**.



Quantity of NSPs where revision targets were met.

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Feb 2021	-		386	386
Mar 2021	-		386	386
Apr 2021	-		388	388
Oct 2021	-	401	-	401
Nov 2021	-	400	-	400
Dec 2021	-	400	-	400
Jan 2022	402	-	-	404
Feb 2022	404	-	-	405
Mar 2022	405	-	-	406

The table below shows that the percentage HE at a summary level is at a high level.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Feb 2021	-	-	100.00%
Mar 2021	-	-	100.00%
Apr 2021	-	-	100.00%
Oct 2021	-	100.00%	-
Nov 2021	-	100.00%	-
Dec 2021	-	100.00%	-
Jan 2022	99.64%	-	-
Feb 2022	99.52%	-	-
Mar 2022	99.67%	-	-

#### Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 13.3 With: Clause 10 Schedule 15.3  From: 01-Jan-22 To: 31-Mar-22	The revision three historic estimate thresholds were not met for January 2022 to March 2022. Potential impact: Low Actual impact: Low Audit history: None Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
<b>Low</b>	The controls are rated as moderate as they will mitigate risk most of the time but there is room for improvement.  The audit risk rating is low as the volume of ICPs affected by this is small as all ICPs are metering installation category 1 and residential.		
Actions taken to resolve the issue	Completion date	Remedial action status	
We consider our current processes to be strong. Due to Globug having a relatively small number of ICPs on some GXPs, a single ICP being estimated can have a disproportionate effect on Globug's HE percentage figures. The effect is mitigated by the fact that historic estimate is 100% from the 7-month revision on and this also indicates that overall our processes are strong.	January 2023	Identified	
Preventative actions taken to ensure no further issues will occur	Completion date		
As above.	As above.		

## 14. GLOSSARY OF TERMS

<b>CS breach for transfer switch</b>	Where a CS is received after an AN AND the CS arrival date is more than five business days of the CS actual transfer date AND no NW has been provided
<b>E2 breach for switch move</b>	NT Proposed Transfer Date and CS Actual Transfer date do not match; AND CS Actual Transfer Date is a) earlier than the NT Proposed Transfer Date; OR b) more than ten business days after receipt of the NT.
<b>NA breach</b>	NW arrival date is more than two calendar months after the CS Actual Transfer Date.
<b>RR breach</b>	RR arrival date is more than four calendar months from the CS Actual Transfer Date.
<b>SR breach</b>	NW arrival date is more than ten business days after the initial NW for the same trader requesting the withdrawal. The trader sending the corresponding AW (either accepting or rejecting the withdrawal) only receives a breach on the AW if it is sent more than five days after the latest NW as in the original rule.
<b>T2 breach for switch move</b>	CS arrival date is more than five business days after receipt of the NT AND, before delivery of the CS No NW notice has been provided, AND (no AN notice has been provided OR an AN notice is provided, and the NT Proposed Transfer Date matches the AN expected Transfer Date).
<b>T2 breach for transfer switch</b>	CS arrival date is more than three business days after receipt of the NT where the CS arrives immediately after the NT.
<b>WR breach for switch move</b>	An AN or CS arrival date (whichever is applicable, may be one or both) are delivered by the losing trader more than two business days of the arrival date of the AW rejecting the withdrawal; AND a subsequent NW is not provided before delivery of the AN or CS.
<b>WR breach for transfer switch</b>	A CS arrival date is more than two business days after the arrival date of the AW rejecting the withdrawal; AND a subsequent NW is not provided before delivery of the CS.

## CONCLUSION

This audit found 31 non-compliances and an audit risk rating of 58. This is an increase from the previous audit which found 24 non-compliances and an audit risk rating of 45. While the risk rating has increased it does not indicate a large decline in compliance. The new issues found this audit were generally minor and/or affected a small number of ICPs, and most of the non-compliances have also been recorded in previous audits. Issues relating to ICP turn downs, which switch out after one day of supply caused non-compliances throughout the switching, read accuracy and submission accuracy sections of the report. Either preventing these ICPs from switching in or making sure they are handled promptly and in line with the Code would significantly improve compliance.

The indicative audit frequency table indicates the next audit should be in three months. I have considered this result in conjunction with the comprehensive responses from Globug which indicate that the solutions to the non-compliances have been identified or are being investigated, and I recommend that the next audit be in ten months.

## PARTICIPANT RESPONSE

We would like to thank the auditors for working with us on this audit and we greatly appreciate their recommendations and feedback. We agree with their comments that while the risk rating has increased it does not reflect a large decline in compliance and that the new issues found were generally minor and/or affected a small number of ICPs. While compliance has always been a high priority for Globug, recent new leadership has brought a renewed focus, commitment and enthusiasm for resolving issues and ensuring that we are as compliant as possible. We believe that we are heading in the right direction and are on a positive trajectory.