

ELECTRICITY INDUSTRY PARTICIPATION CODE
RECONCILIATION PARTICIPANT AUDIT REPORT

VERITEK

For



GENESIS ENERGY LIMITED
IBN 9429038698279

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EXECUTIVE SUMMARY

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

Genesis uses three codes: GENE, GENH and GEOL. Unless otherwise specified, the processes and non-compliances described in the report relate to all codes.

Registry and Switching:

Genesis have continued to focus on compliance which has improved results overall. For example, 85% of GENE new connections are now being updated within five business days. This is the best result for GENE to date. Registry discrepancies are being checked and worked more frequently further reducing historic backlogs.

In the switching area, similar issues were found to that in the last audit with known system issues expected to be addressed with the upcoming system change. I found a small number of ICPs that have switched out at the “inactive - new connection in progress” status. ICPs should not switch at this status. If the proposed trader is changing, then the ICP should be returned to “ready”, and the distributor should update the proposed trader. If the ICP has been electrically connected, then any consumption during GENE’s period of supply will not be submitted. I recommend that any ICPs switching at this status are treated as exceptions and investigated.

The other issue identified in switching was that RR reads in Gentrack are not always being recorded in Derive+. The error rate of the sample checked was high and the volumes not small. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have flowed through to Derive+ correctly.

There are two distributed unmetered load database audit reports overdue. There are nine databases with errors greater than 50,000 kWh per annum. Waka Kotahi is the owner of four of these. I have recommended in their most recent DUML audit report that Genesis engage with the Maintenance Managers as changes made in the field are not being updated in the databases. Genesis is continuing to engage with all of their DUML customers to make improvements in the accuracy of streetlights.

Reading and Reconciliation:

There have been a number of improvements to reading and reconciliation, and 11 of the non-compliances from the previous audit have been cleared. The improvements include:

- unmetered load is now being accurately calculated and submitted,
- the correction process is now more robust,
- identification and management of bridged meters is now much stronger,
- distributed generation reporting is in place and managed,
- no estimates are remaining at 14-months, and
- AMI meter condition information is now being monitored.

Genesis is continuing to refine the validation processes to ensure issues are identified and resolved. Since the analysis was conducted for the audit, further improvements have been made to the bridged and stopped meter correction processes and the distributed generation processes.

Further improvements are underway in the following areas:

- getting NHH meter readings for Spark installations to improve attainment rates,
- ensuring Wells meter readers are trained and confirmed as competent to identify phase failure. Requiring Wells to provide photos of all CT metered meters to enable Genesis to double check for phase failure,

- recording meter reads for disconnection and reconnection, and
- monitoring of field jobs issued but not completed.

All matters raised are shown in the tables below.

The audit raises 41 non-compliances, which is a continued reduction from 47 in the last audit and 49 in the audit prior. 17 recommendations are made. The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The audit risk rating has reduced from 101 to 88. The table below provides some guidance on this matter and recommends an audit frequency of three months. I have considered this in conjunction with the comments from Genesis and recommend that the next audit be completed in 14 months' time, to reflect the improved level of compliance to ensure the audit is conducted after Genesis intends to go live with the first part of their system change, which is currently scheduled for the end of 2024 to the beginning of 2025.

AUDIT SUMMARY

NON-COMPLIANCES

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Relevant information	2.1	15.2	Some inaccurate data is recorded and was not updated as soon as practicable.	Moderate	Medium	4	Identified
Electrical Connection of Point of Connection	2.11	10.33(A)	<p>GENE</p> <p>98 new connections were not certified within five business days.</p> <p>222 reconnections were not certified within five business days.</p> <p>Nine ICPs with bridged meters not recertified within five business days.</p> <p>GEOL</p> <p>Nine reconnections were not certified within five business days.</p> <p>Two ICPs with bridged meters not recertified within five business days.</p> <p>GENH</p> <p>Two new connections were not certified within five business days.</p>	Moderate	Low	2	Identified
Connecting ICPs then withdrawing switch	2.14	10.33A(5)	<p>GEOL</p> <p>One ICP gain reconnected and then withdrawn but not disconnected.</p>	Moderate	Low	2	Investigating
Removal or breakage of seals	2.16	48 (1F) of Schedule 10.7	MEPs not notified when seals are replaced when actioned by Wells.	Moderate	Low	2	Investigating
Meter bridging	2.17	10.33C and 2A of Schedule 15.2	<p>GENE</p> <p>Consumption for the bridged period has not been submitted for seven ICPs and has not been correctly apportioned across the bridged period for three ICPs.</p> <p>Notification to MEP not within one business day for seven of 12 ICPs checked.</p> <p>GEOL</p> <p>Consumption for the bridged period has not been submitted for four ICPs.</p> <p>Notification to MEP not within one business day for seven of nine ICPs checked.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Changes to registry information	3.3	10 Schedule 11.1	Some status and trader updates were not processed within five business days of the event on the registry.	Moderate	Low	2	Identified
Trader responsibility for an ICP	3.4	11.18	GENE Five incorrect MEP nominations.	Strong	Low	1	Investigating
Provision of information to the registry manager	3.5	9 of schedule 11.1	GENE 2,717 late updates for new connections (85.07% updated within five business days). Nine of a sample of 34 ICPs of a possible 1,279 ICPs had the incorrect first "active" date (18% error rate). GEOL Ten late updates for new connections (47.37% updated within five business days). GENH Eight late updates for new connections (88.41% updated within five business days). One incorrect "active" date from the previous audit not yet resolved. Two of a sample of 16 ICPs of a possible 32 ICPs had the incorrect first "active" date (6% error rate).	Moderate	Low	2	Identified
ANZSIC codes	3.6	9(1)(k) of schedule 11.1	GENE Eight ICPs of a total of 33 ICPs checked with a category 2 meter and incorrectly recorded as residential. 12 ICPs of a sample of 100 ICPs checked with an incorrect ANZSIC code recorded. 12% error rate. GEOL One ICP of a total of six ICPs checked with a category 2 meter and incorrectly recorded as residential. Six ICPs of a sample of 80 ICPs checked with an incorrect ANZSIC code recorded. 7.5% error rate. GENH 11 ICPs of a sample of 50 ICPs checked with an incorrect ANZSIC code recorded. 22% error rate.	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Changes to unmetered load	3.7	Clause 9(1)(f) of Schedule 11.1	GENE ICP 0900085399PCC82 has unmetered load incorrectly recorded.	Moderate	Low	2	Identified
Management of "active" status	3.8	17 Schedule 11.1	GENE Nine of a sample of 34 ICPs of a possible 1,279 ICPs had the incorrect first "active" date (18% error rate). GEOL Two of a sample of 16 ICPs of a possible 32 ICPs had the incorrect first "active" date (6% error rate).	Moderate	Low	2	Identified
Management of "inactive" status	3.9	19 Schedule 11.1	GENE Two incorrect "inactive" reason statuses. 13 of 15 of the oldest ICPs sampled had the incorrect status of "inactive- new connection in progress". Incorrect "inactive" status date applied for ICP 0006097006RND4F.	Strong	Low	1	Identified
Inform registry of switch request for ICPs - standard switch	4.1	2 of schedule 11.3	GENE Three backdated switches of a sample of ten switches examined were sent incorrectly as transfer switches. GEOL One backdated switch of a sample of ten switches examined sent incorrectly as a transfer switch.	Moderate	Low	2	Identified
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	GENE All five "AA" AN files sampled of a possible 28 ICPs sent with the incorrect code. "AD" should have been used. Three "PD" AN files sent with the incorrect code. GEOL All five "AA" AN files sampled of a possible 46 ICPs sent with the incorrect code. "AD" should have been used. Two of five "PD" AN files sampled of a possible nine ICPs sent with the incorrect code. GENH	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			One "AA" AN file of eight ICPs sent with the incorrect code. "AD" should have been used.				
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	<p>The average daily consumption calculation is not calculated from the last read period.</p> <p>GENE</p> <p>Three of a sample of five of a possible 29 ICPs were sent incorrectly with an average daily consumption of zero.</p> <p>All five ICPs checked of a possible 55 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>Five CS files were sent with a last actual read date after GENE's period of supply.</p> <p>GEOL</p> <p>Three of a sample of five of a possible 170 were sent incorrectly with an average daily consumption of zero.</p> <p>One of a sample of two ICPs of a possible eight with an average daily kWh consumption of more than 200 kWh was incorrect.</p> <p>All five ICPs checked of a possible 726 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>All five ICPs checked of a possible nine were sent with a last actual read date on the effective switch date.</p> <p>Five CS files had a last actual read date after GEOL's period of supply.</p> <p>One of the five ICPs sampled for CS content sent with an estimated switch event read where the last actual read date was on the last day of responsibility.</p> <p>GENH</p> <p>One CS breach.</p>	Weak	Low	3	Investigating
Retailers must use same reading -	4.4	6(1) and 6A	<p>GENE</p> <p>One RR read request not supported by two actual reads.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
standard switch		Schedule 11.3	<p>Eight RR breaches.</p> <p>One RR read was not recorded correctly in Gentrack.</p> <p>Four incorrect start reads in Derive+ out of a sample of ten of a possible 67 ICPs checked where RR files have been processed in Gentrack.</p> <p>GEOL</p> <p>One incorrect start read in Derive+ out of a sample of four checked of a possible 13 ICPs where RR files have been processed in Gentrack resulting in an over submission of 258 kWh.</p>				
Gaining trader informs registry of switch request - switch move	4.7	9 Schedule 11.3	<p>GENE</p> <p>One of a sample of five NTs should have been requested as a transfer switch.</p> <p>GENH</p> <p>Two of a sample of five NTs not sent within two days of pre-conditions being met.</p> <p>One of a sample of five NTs should have been requested as a transfer switch.</p>	Moderate	Low	2	Identified
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	<p>GENE</p> <p>All five "AA" AN files sampled of a possible nine ICPs sent with the incorrect code. "AD" should have been used.</p> <p>One "AD" AN file sampled of a possible 91 ICPs sent with the incorrect code. "PD" should have been sent.</p> <p>One "OC" AN file sampled of a possible 105 ICPs sent with the incorrect code. "AD" should have been sent.</p> <p>One AN had proposed event dates more than ten business days after the NT receipt date.</p> <p>Seven of a possible 15 ICP switch requests should not have been accepted as they were "inactive - new connection in progress".</p> <p>Three ANs had proposed event dates more than ten business days after the NT receipt date.</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>Five valid ET breaches.</p> <p>One E2 breach.</p> <p>GEOL</p> <p>All five "AA" AN files sampled of a possible 46 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>ICP 0314488030LCECF sent with the incorrect "MU"AN code.</p> <p>All five "OC" AN files sampled of a possible 216 ICPs sent with the incorrect code. "PD" should have been used.</p> <p>One AN had a proposed event date more than ten business days after the NT receipt date.</p> <p>GENH</p> <p>Two "AA" AN files sent with the incorrect code. "AD" should have been used.</p> <p>Nine T2 breaches.</p>				
Losing trader determines a different date - switch move	4.9	10 (2) of schedule 11.3	<p>GENE</p> <p>One AN file sent with a proposed gain date earlier than the gaining traders requested date.</p>	Strong	Low	1	Identified
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	<p>The average daily consumption calculation is not calculated from the read-to-read period.</p> <p>GENE</p> <p>Four of a sample of five of a possible 121 ICPs were sent incorrectly with an average daily consumption of zero.</p> <p>All five ICPs sampled of a possible 113 where the last read date was shown as the last billed date but the last read date was earlier.</p> <p>One CS file had a last actual read date after the effective switch date.</p> <p>One CS file with a last actual read date on the switch event date.</p> <p>Seven CS files sent with missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows.</p> <p>GEOL</p> <p>One of a sample of five of a possible 1,385 ICPs were sent</p>	Moderate	Low	2	Investigating

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>incorrectly with an average daily consumption of zero.</p> <p>All five ICPs checked of a possible 586 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>Three CS files had a last actual read date after the effective switch date.</p> <p>All five checked of a possible 12 CS files sent with an incorrect last actual read date on the switch event date.</p> <p>Four CS files sent with missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows.</p>				
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	<p>GENE</p> <p>Four of a sample of ten of a possible 311 RR files were incorrect. Three had the correct read in Gentrack but the incorrect read in Derive+. One RR read was not recorded correctly in Gentrack and Derive+. These errors have resulted in an over submission of 6,075 kWh.</p> <p>70 RR breaches.</p> <p>GEOL</p> <p>Six of a sample of ten of a possible 41 RR files were incorrect. All had the correct read in Gentrack but the incorrect read in Derive+ resulting in an over submission of 12,845 kWh.</p>	Moderate	High	6	Identified
Gaining trader informs registry of switch request - gaining trader switch	4.12	14 Schedule 11.3	<p>GENH</p> <p>Two late NT files.</p>	Moderate	Low	2	Investigating
Losing trader provision of information - gaining trader switch	4.13	15 Schedule 11.3	<p>GENH</p> <p>One late AN file.</p>	Strong	Low	1	Identified
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	<p>GENE</p> <p>Three incorrect NW codes of a sample of 19 ICPs checked.</p> <p>58 SR breaches.</p> <p>331 NA breaches.</p>	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>GEOL</p> <p>Three incorrect NW codes of a sample of 20 ICPs checked.</p> <p>One NW file sent in error.</p> <p>16 SR breaches.</p> <p>126 NA breaches.</p>				
Maintaining shared unmetered load	5.1	111.14	<p>GEOL</p> <p>ICP 0007124770RN8A3 incorrectly has shared unmetered load recorded.</p>	Moderate	Low	2	Cleared
Unmetered threshold	5.2	10.14 (2)(b)	<p>GENE</p> <p>Six ICPs with unmetered load over 6,000 kWh per annum.</p>	Moderate	Low	2	Investigating
Unmetered threshold exceeded	5.3	10.14 (5)	<p>GENE</p> <p>Six unmetered loads over 6,000 kWh per annum and not resolved within the allowable timeframes.</p>	Moderate	Low	2	Investigating
Distributed unmetered load	5.4	11 Schedule 15.3	<p>GENE</p> <p>Inaccurate submission information for several databases.</p> <p>One database audit report completed late.</p> <p>Two database audits not undertaken by the due date.</p>	Moderate	High	6	Identified
Electricity conveyed & notification by embedded generators	6.1	10.13, Clause 10.24 and 15.13	<p>GENE</p> <p>Ten of a possible ten ICPs had the PV1 or HHR profiles added after the change to "B" by the distributor. The number of days ranged from 16 to 2,215 with an average of 301.</p> <p>Five ICPs of a sample of ten of a possible 23 ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>Ten ICPs did not have a settled I flow register present but were recorded with the RPS PV1 profile.</p> <p>ICP 0001447794UNFFA has a fuel type of Wind but the profile code PV1 has been applied.</p> <p>GEOL</p> <p>Eight of a possible eight ICPs had the PV1 profile added after the</p>	Moderate	Low	2	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>change to "B" by the distributor. The number of days ranged from 33 to 376 with an average of 141.</p> <p>Nine ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>One ICP did not have a settled I flow register present but was recorded with the RPS PV1 profile.</p> <p>Bridged meters</p> <p>GENE</p> <p>97 AMI meters were bridged during the audit period. While meters are bridged energy is not quantified in accordance with the code.</p> <p>GEOL</p> <p>Ten AMI meters were bridged during the audit period. While meters are bridged energy is not quantified in accordance with the code.</p>				
Responsibility for metering at GIP	6.2	10.26(7)(c)	RM was not notified that the MEP has changed to Accucal.	Moderate	Low	2	Identified
NHH meter reading application	6.7	6 Schedule 15.2	<p>GENE</p> <p>NHH meter readings not applied at 2400 on the day of the meter change for upgrades to HHR.</p> <p>GEOL</p> <p>NHH meter readings not applied at 2400 on the day of the meter change for upgrades to HHR.</p>	Moderate	Low	2	Investigating
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	<p>GENE</p> <p>Four ICPs unread during the period of supply did not have exceptional circumstances and, the best endeavours requirement was not met.</p> <p>GEOL</p> <p>11 ICPs unread during the period of supply did not have exceptional circumstances and, the best endeavours requirement was not met.</p>	Moderate	Low	2	Identified
NHH meters interrogated annually	6.9	8(1) and (2)	GENE	Strong	Low	1	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
		Schedule 15.2	<p>Six of a sample of 14 ICPs unread in the 12 months ending during the audit period, did not have exceptional circumstances and the best endeavors requirement was not met.</p> <p>GEOL</p> <p>Three of the sample of 11 ICPs unread in the 12 months ending during the audit period, did not have exceptional circumstances and the best endeavors requirement was not met.</p>				
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	<p>GENE</p> <p>Exceptional circumstances did not apply, and the best endeavours requirement was not met for five of the 15 ICPs sampled.</p> <p>GEOL</p> <p>Exception circumstances did not apply, and the best endeavours requirement was not met for six of 13 ICPs sampled.</p>	Moderate	Low	2	Identified
Correction of HHR metering information	8.2	19(2) Schedule 15.2	Corrections not made for three bridged HHR meters.	Strong	Low	1	Identified
Meter data used to derive volume information	9.3	3(5) of schedule 15.2	<p>Some data collected by Stark is rounded when collected from the metering installation.</p> <p>AMI meter reading data is truncated for import into Gentrack and Derive+.</p>	Moderate	Low	2	Identified
HHR aggregates information provision to the reconciliation manager	11.4	15.8	<p>No submission for ICP 0282008594LCF10 between March and August 2023. Resolved through revisions.</p> <p>No zero record in the aggregates file for ICP 0000174403TRCAA for April and May 2023.</p>	Strong	Low	1	Identified
Creation of submission information	12.2	15.4	<p>GENE and GEOL</p> <p>Ten of a possible ten GENE ICPs had the PV1 or HHR profiles added after the change to "B" by the distributor. The number of days ranged from 16 to 2,215 with an average of 301.</p> <p>Five ICPs of a sample of ten of a possible 23 GENE ICPs that were generating or likely to be</p>	Moderate	Medium	4	Identified

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
			<p>generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>Eight of a possible eight GEOL ICPs had the PV1 profile added after the change to "B" by the distributor. The number of days ranged from 33 to 376 with an average of 141.</p> <p>Nine GEOL ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>HHR volumes for day of disconnection not included in submission.</p> <p>Consumption for the bridged period has not been submitted for seven GENE ICPs and has not been correctly apportioned across the bridged period for three ICPs.</p> <p>Consumption for the bridged period has not been submitted for four GEOL ICPs.</p> <p>ICP 0000027221UN85C did not have a correction conducted for the entire period the meter was defective.</p> <p>ICP 0063099483WE8B9 had a stopped meter, however the correction was not conducted for the entire period the meter was stopped.</p> <p>ICP 0282008594LCF10 switched in on 1 March 2023, but did not appear in the HHR aggregates file until September 2023.</p> <p>ICP 0000174403TRCAA was "active" in April and May 2023 and therefore should have had a zero record even if there was no submission.</p> <p>9,525 kWh over submission due to zeroing not occurring.</p>				
Accuracy of submission information	12.7	15.12	<p>GENE and GEOL</p> <p>Some submission data was inaccurate and was not corrected at the next available opportunity.</p>	Moderate	Medium	4	Investigating

Subject	Section	Clause	Non-Compliance	Controls	Audit Risk Rating	Breach Risk Rating	Remedial Action
Forward estimate process	12.12	6 Schedule 15.3	GENE and GEOL The accuracy threshold was not met for some months and revisions, because forward estimate was too high or too low.	Strong	Low	1	Identified
Historical estimate reporting to RM	13.3	10 Schedule 15.3	GENE and GEOL Historic estimate thresholds were not met for some revisions.	Moderate	Low	2	Investigating
Future Risk Rating						88	

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

RECOMMENDATIONS

Subject	Section	Recommendation
Certification of metering on reconnection	2.11	Review the reconnection process to ensure that all staff understand the requirement to notify the MEP if a site is reconnecting and the meter has an expired certification.
Disconnection of reconnected withdrawn switches	2.14	Review the switch withdrawal process to ensure that all reconnected withdrawn switches are returned to disconnected unless requested by another trader for the same gain date.
Meter bridging	2.17	Review and change the process for notification of bridged meters to the reconciliation team to ensure notification is made in every instance.
		Check all ICPs on the bridged meter report to ensure corrections have been made and appropriately apportioned.
Pending network deconsolidation ICPs	3.5	Liaise with the relevant network to progress the six pending new connection ICPs that have been created as part of the network deconsolidation projects.
Changes to un-metered load	3.7	GENE Investigate the 62 ICPs with un-metered load recorded but where the distributor has none.
ICPs pending new connection for more than 24 months	3.9	GEOL Review all pending new connections to confirm if they are still required. Specifically, the four of these are part of the Counties Power network deconsolidation project. I recommend investigation with the network to progress these.
Switch requests for ICPs at "inactive - new	4.8	Any switches requested at this status should be treated as exceptions and investigated.

Subject	Section	Recommendation
connection in progress"		
Confirm unmetered load	5.2	GENE Liaise with the Wellington Electricity to confirm the expected unmetered load associated with ICP1001117616UN1D9.
Distributed generation	6.1	Continue with plans for GEOL to adopt GENE processes for DG. Add ICPs to the gifting register once all other options have been exhausted.
Clock errors over 1800 seconds	6.5	Develop reporting and processes to identify and resolve corrections to data where clock errors exist over 1800 seconds for HHR ICPs.
Phase failure	6.6	Include phase failure identification in the internal audit of Wells to ensure competency is assessed and confirmed. Require Wells to provide photos of all Category 2 meters. Check the photos to confirm phase failure is not present
Phase failure	8.2	Request Bluecurrent MEP to provide a statement of situation for ICP 0000039817UN400, where the certification report indicated phase failure had been identified.
Improve disconnection read capture.	9.5	Change data capture processes around disconnections and reconnection to retrieve actual reads from either the AMI meter read tables or the work requests to improve the accuracy of the inactive consumption report.
Field work monitoring	9.6	Develop and monitor a report of all field work to enable follow up if there are turndowns or delays.
Review historic unmetered load records where no description of unmetered load is present	12.2	Work with Wellington Electricity and other respective distributors to validate is historic unmetered load records where the daily kWh value is 0.5 kWh per day and no retailer or distributor UNM record is available to determine if this unmetered load is still valid.
Review the operational characteristics of 72 unmetered payphones recorded with 12 hours of operation		Work with the customer associated with 232 unmetered payphones recorded with 12 hours of operation and review the operational characteristics of these phones with a view to updating the registry if the information is found to be incorrect.

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

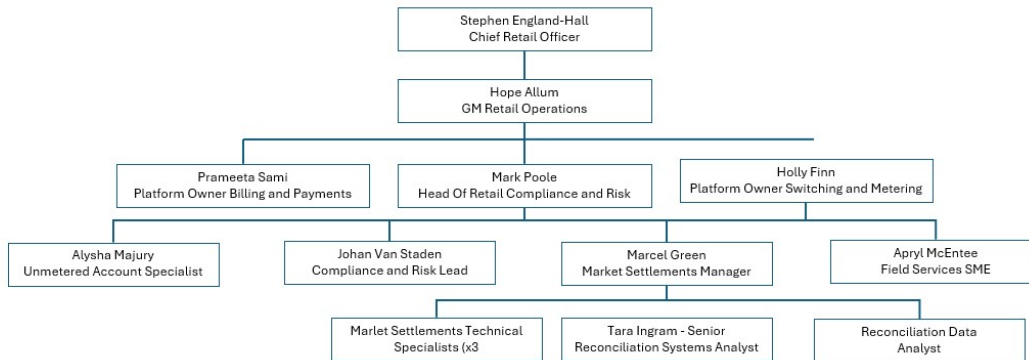
I checked the Authority's website to identify any relevant exemptions.

Audit commentary

There are no current exemptions relevant to the scope of this audit.

1.2. Structure of Organisation

Genesis provided a copy of their organisational structure:



1.3. Persons involved in this audit

Auditors:

Name	Company	Role
Rebecca Elliot	Veritek Limited	Lead Auditor
Steve Woods	Veritek Limited	Supporting Auditor

Personnel assisting in this audit were:

Name	Title
Mark Poole	Head of Retail Compliance and Risk
Johan van Staden	Risk and Compliance Specialist
Marcel Green	Market Settlements Manager
Pania Doak	Head of Frank Experience
Tamsin Cosgrove	Metering SME
Brooke Milne	Team Leader - Exceptions
Tara Ingram	Senior Reconciliation Systems Analyst
April McEntee	Field Services SME
Bee Smerdon	Technical Specialist – Market Settlements
Ainslee Watts	TOU Technical Facilitator
Rebecca Rahmann	Payments & Credit SME
Alysha Majury	DUML Data & Stakeholder Lead
Anna Fraser-Jones	New Connections SME
Zeb Hartley	Technical Specialist – Market Settlements
Jyoti Patel	Junior Financial Control Analyst

1.4. Use of Agents (Clause 15.34)

Code reference

Clause 15.34

Code related audit information

A reconciliation participant who uses an agent

- *remains responsible for the contractor's fulfilment of the participant's Code obligations,*
- *cannot assert that it is not responsible or liable for the obligation due to something the agent has or has not done.*

Audit observation

Use of agents was discussed with Genesis.

Audit commentary

Genesis engages the following service providers:

Provider	Services
Bluecurrent	Gathering and storing of HHR data for GENH HHR and GENE AMI ICPs. Creation and management of volume information for GENH HHR ICPs. Calculation of ICP days for GENH HHR ICPs. Provision of submission information for GENH HHR.
EDMI	Gathering and storing of HHR data for HHR ICPs.
EMS	Provision of HHR metering information to the grid owner. Gathering and storing of raw meter data for unmetered streetlights. Estimation of volumes for unmetered streetlights.
Wells	Gathering and storing of raw meter data for NHH ICPs.

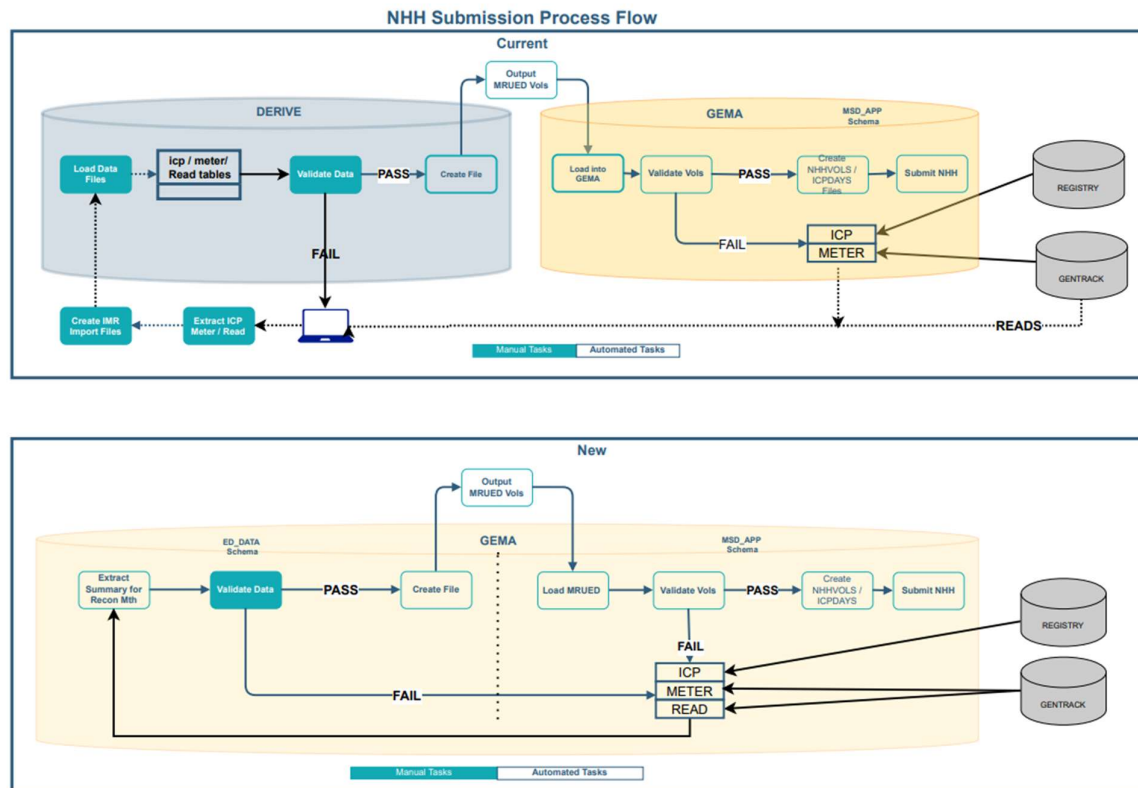
In addition, MEPs provide AMI data in their capacity as MEPs and are subject to a separate audit regime.

1.5. Hardware and Software

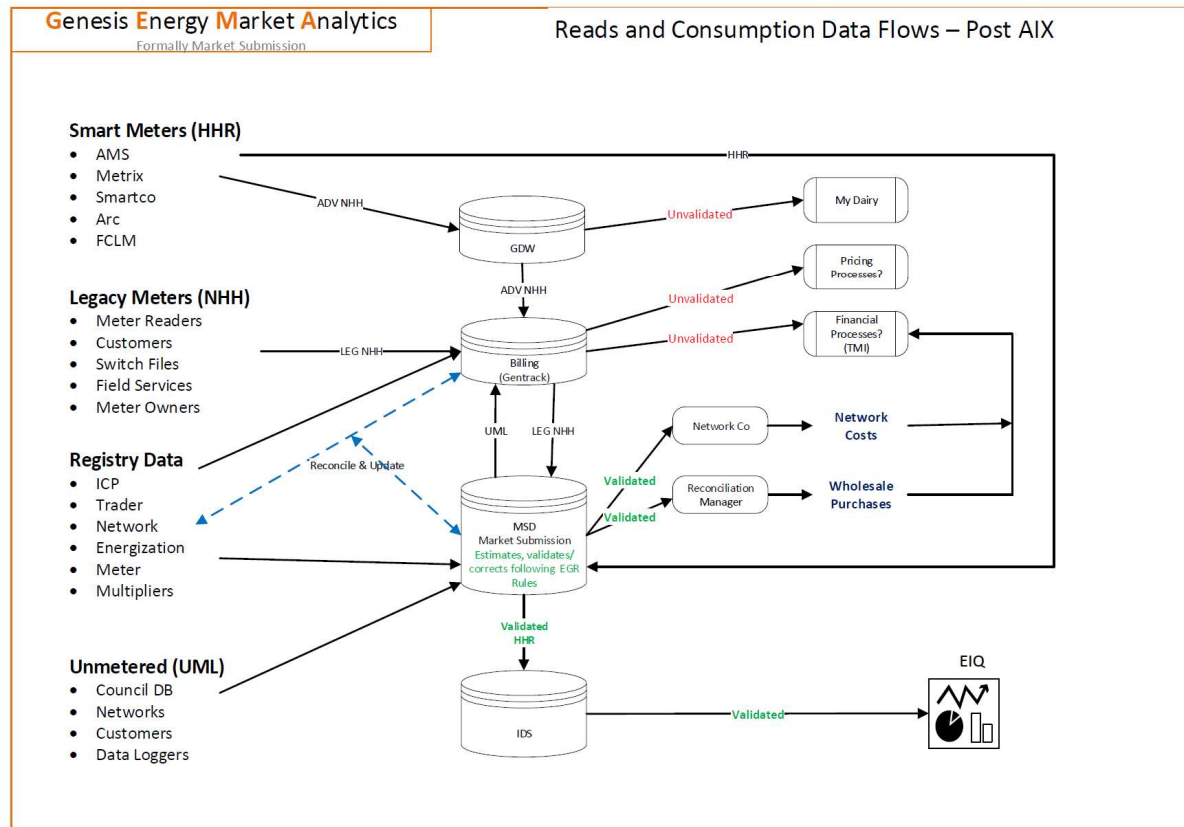
A diagram of the systems is shown below. All ICPs are managed in Gentrack.

Derive+ uses read and meter information from Gentrack, aggregation factor information from the registry, and shape value information from the reconciliation manager to calculate NHH volumes and ICP days. The raw submission data is then transferred to MSD for aggregation and validation before being submitted to the reconciliation manager.

Derive+ forms part of the existing Genesis GEMA (Genesis Energy Market Analytics) database, which also includes MSD.



A diagram of the AMI HHR application architecture is shown below. All HHR data is received directly into MSD and GDW. The IDDB platform has been decommissioned.



Stark RT version 6 is used for interrogation of generation metering, and all users have an individual login and password for Stark.

Back-ups are in accordance with standard industry protocols. The systems are backed up every 15 minutes in production and there is a further off site back up of RODS daily.

1.6. Breaches or Breach Allegations

The Electricity Authority confirmed that there have been two alleged breaches relevant to the scope of this audit for Genesis Energy.

Breach ref	Clause breached	Status	Summary	Result
2212GENE2	Part 11 clause 11.15AA	Closed	Switch save protection alleged breach.	No breach
2307GENE2	Part 11 clause 11.15AA	Closed	We have received another complaint from our customer below who stated that GENE called her to offer her to switch to them. When she advised that she was switching to Flick she was told that Flick changed prices every month. GENE was verbally advised by customer that she was switching to Flick but GENE still tried to lure the customer. I believe this is a breach of the saves and winback clause 11.15AA. We have reported breach against GENE multiple times and it seems that they are not taking this seriously as they do not have to face any consequences of these breaches.	No breach
2308GENE1	Part 15 clause 15.2(1)(a)	No result yet	Genesis Energy Limited (GENH) failed to submit accurate information to the RM by 16:00 on the 13th business day of the reconciliation period. Following the RMs post-run checks of the reconciled volumes for 202205 R14, an HHR scaling of 1.25 was noted on BAL0331-OTPO. The RM notified Genesis Energy and asked them to submit a revised AV-110 on 27 July 2023 at 09:11 to correct the scaling. The revised AV-110 was received on 27 July 2023 at 11:21.	No result yet
2307GENE01	Part 15 clause 15.2(1)(a)	Closed	Genesis Energy Limited (GENE and GEOL) failed to submit accurate information to the RM by 16:00 on the 13th business day of the reconciliation period. Following the RMs normal submission checks of the volumes submitted by the participants on 21 June 2023, a change was noted in their non-half hour submissions for 202204 (R14). The RM notified Genesis Energy who indicated that they want to revise their submissions. The revised AV-080 and AV-110 for GENE and GEOL were received on 22 June 2023 at 18:59. On rechecking the revised files, even though AV-080 was corrected, new scaling was noted for AV-110 on multiple NSPs for GENE and GEOL which didn't exist before. Genesis Energy was informed again about the scaling and their corrected revised files were received on 23 June 2023 at 16:02.	No warning
2302GENE1	Part 15 clause 15.4(2)	Closed	Genesis Energy Limited t/a Frank Energy (GEOL) failed to submit information to the reconciliation manager by 16:00 on the 13th business day of the reconciliation period.	No warning

1.7. ICP Data

GENE

All “active” ICPs are summarised by metering category in the table below. “Active” ICPs with a metering category of 9 or blank are discussed in **section 2.9**.

Metering Category	2024	2023	2022	2021	2020	2019	2018	2017
1	398,346	396,985	388,579	394,959	402,274	405,579	409,403	418,547
2	2,451	2,482	2,648	2,801	2,928	3027	2,918	2,703
3	0	1	0	1	1	1	1	1
4	0	0	0	0	0	0	0	0
5	2	2	2	2	2	2	2	2
9	612	628	626	819	719	822	927	1,172
Blank	1,916	2,226	2,222	2,335	2,238	2,178	2,318	2,387

Status	2024	2023	2022	2021	2020	2019	2018	2017
Active (2,0)	403,327	402,324	394,077	400,917	408,162	411,609	415,569	424,722
Inactive - new connection in progress (1,12)	2,864	3,381	2,376	1,992	1,836	1,515	1,212	966
Inactive – vacant (1,4)	10,022	9,726	9,672	9,950	9,926	10,172	10,646	10,966
Inactive – AMI remote disconnection (1,7)	2,740	2,625	2,420	2,234	1,800	1,919	2,199	1,831
Inactive – disconnected due to meter disconnected (1,9)	34	33	28	31	24	26	36	33
Inactive – disconnected at pole fuse (1,8)	76	62	55	39	30	37	53	46
Inactive – disconnected at meter box fuse (1,10)	5	8	8	10	6	7	20	10

Inactive – disconnected at meter box switch (1,11)	7	5	5	11	7	6	10	8
Inactive – disconnected ready for decommissioning (1,6)	2,049	2,032	2,053	2,001	1,969	1,988	2,270	2,957
Inactive – reconciled elsewhere (1,5)	12	19	169	2	4	2	0	4
Decommissioned (3)	49,480	48,645	46,667	45,249	43,756	42,090	40,249	37,654

GEOL

All “active” ICPs are summarised by metering category in the table below. The one “active” ICP with a blank metering category is discussed in **section 2.9**.

Metering Category	2024	2023	2022	2021	2020	2019	2018	2017
1	91,950	92,733	87,234	85,808	88,632	89,865	90,011	86,110
2	109	131	149	150	146	154	170	191
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
9	0	5	7	15	5	7	11	12
Blank	1	1	1	6	4	3	2	7

Status	2024	2023	2022	2021	2020	2019	2018	2017
Active (2,0)	92,060	92,870	87,391	85,979	88,787	90,029	90,194	86,230
Inactive - new connection in progress (1,12)	38	51	104	108	91	80	69	88
Inactive – vacant (1,4)	746	727	772	774	816	964	850	834
Inactive – AMI remote disconnection (1,7)	407	453	388	275	268	411	61	64
Inactive – disconnected due to meter disconnected (1,9)	82	81	26	14	9	3	2	0

Inactive – disconnected at pole fuse (1,8)	90	93	32	24	14	7	3	3
Inactive – disconnected at meter box fuse (1,10)	36	30	11	7	8	1	0	1
Inactive – disconnected at meter box switch (1,11)	31	35	10	11	4	0	1	0
Inactive – disconnected ready for decommissioning (1,6)	117	111	106	93	89	180	189	206
Inactive – reconciled elsewhere (1,5)	0		0	0	0	0	0	0
Decommissioned (3)	3,316	3,230	3,046	2,861	2,650	2,340	2,115	1,868

GENH

All “active” ICPs are summarised by metering category in the table below. There were no “active” ICPs with a metering category of 9 or blank identified.

Metering Category	2024	2023	2022	2021	2020	2019	2018	2017
1	164	171	97	105	123	99	100	82
2	1,284	1,121	971	1,050	1,165	908	922	753
3	477	470	510	615	710	649	632	452
4	182	182	176	211	234	218	192	150
5	24	20	21	29	28	24	22	11
9	0	1	2	2	4	4	1	1
Blank	0	2	5	4	4	0	2	1

Status	2024	2023	2022	2021	2020	2019	2018	2017
Active (2,0)	2,131	1,967	1,782	2,016	2,268	1,902	1,841	1,450
Inactive - new connection in progress (1,12)	19	11	13	9	11	8	11	13
Inactive – vacant (1,4)	1	1	0	0	0	0	0	2
Inactive – AMI remote disconnection (1,7)	0	0	0	0	0	0	0	0

Status	2024	2023	2022	2021	2020	2019	2018	2017
Inactive – de-energised due to meter disconnected (1,9)	0	0	0	0	0	0	0	1
Inactive – at pole fuse (1,8)	0	0	0	0	0	0	0	1
Inactive – de-energised at meter box fuse (1,10)	0	0	0	0	0	0	0	0
Inactive – at meter box switch (1,11)	0	0	0	0	0	0	0	0
Inactive – ready for decommissioning (1,6)	3	2	4	1	1	1	0	1
Inactive – reconciled elsewhere (1,5)	2	1	2	2	2	2	2	2
Decommissioned (3)	475	468	458	444	433	419	406	0

1.8. Authorisation Received

A letter of authorisation was received.

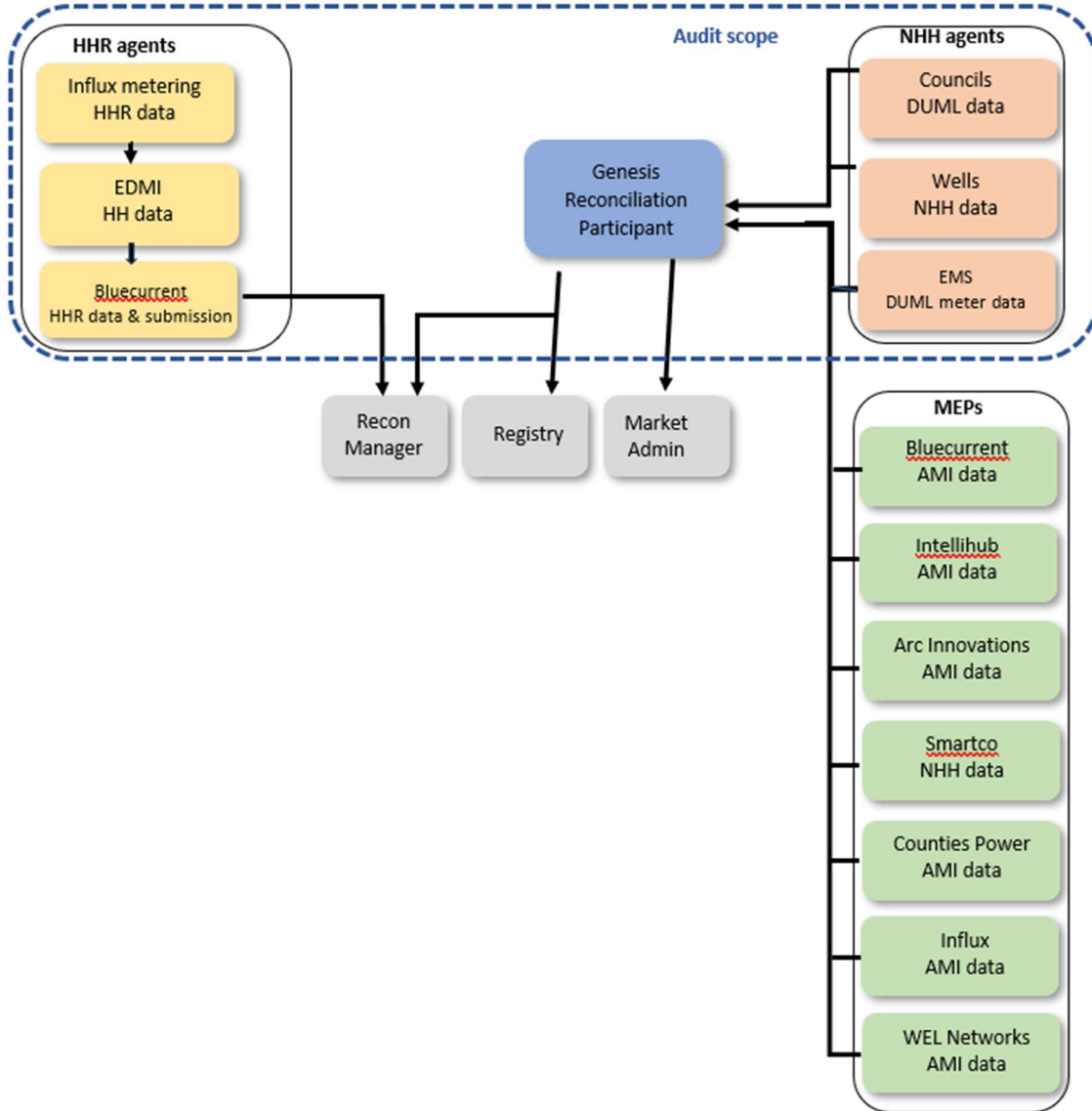
1.9. Scope of Audit

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

This audit includes the GENE, GENH and GEOL participant codes. Any reference to Genesis in the report includes all participant codes, unless the specific code is mentioned.

The audit was carried out 26 to 29 February 2024 at the Genesis offices in Hamilton.

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



The table below shows the tasks under clause 15.38 of part 15 for which Genesis requires certification.

Tasks Requiring Certification Under Clause 15.38(1) of Part 15	Agents Involved in Performance of Tasks	MEPs Providing Data
(a) - Maintaining registry information and performing customer and embedded generator switching		
(b) – Gathering and storing raw meter data	Bluecurrent – HHR EDMI- HHR Wells – NHH	Bluecurrent Intellihub Smartco ARC Innovations Influx Counties Power WEL Networks
(c)(iii) - Creation and management of volume information	Bluecurrent – HHR Councils – DUMML databases EMS - DUMML data	
(d) (i)– Calculation of ICP days	Bluecurrent – HHR for GENH	
(d)(ii) - delivery of electricity supplied information under clause 15.7		
(d)(iii) - delivery of information from retailer and direct purchaser half hourly metered ICPs under clause 15.8		
(e) – Provision of submission information for reconciliation	Bluecurrent - HHR for GENH	
(f) - Provision of metering information to the Grid Owner	Bluecurrent - HHR for GENH	

Genesis receives DUMML data from several Councils. These parties are considered agents under clause 15.34.

The remaining agents listed above have been audited in accordance with the Guidelines for Reconciliation Participant Audits relevant at the time of the audit.

1.10. Summary of previous audit

The previous audit was conducted in March 2023 by Steve Woods (lead auditor) of Veritek Limited. The summary tables below show the statuses of the non-compliances and recommendations raised in the previous audit. Further comment is made in the relevant sections of this report.

Table of non-compliances

Subject	Section	Clause	Non-compliance	Status
Relevant information	2.1	15.2	Some inaccurate data is recorded and was not updated as soon as practicable.	Still existing
Electrical Connection of Point of Connection	2.11	10.33(A)	<p>GENE</p> <p>110 new connections were not certified within five business days.</p> <p>231 reconnections were not certified within five business days.</p> <p>73 ICPs with bridged meters not recertified within five business days.</p> <p>GEOL</p> <p>Two new connections were not certified within five business days.</p> <p>31 reconnections were not certified within five business days.</p> <p>GENH</p> <p>Seven new connections were not certified within five business days.</p>	Still existing
Meter bridging	2.17	10.33C and 2A of Schedule 15.2	<p>GENE</p> <p>11 meters have yet to be un-bridged.</p> <p>Consumption for the bridged period has not been submitted for ICP 0795798202LCD5F, and also six ICPs identified from the previous audit where an opportunity was still available to complete a volume correction prior to these ICPs moving outside the revision window.</p> <p>GEOL</p> <p>No active reporting is in place to monitor bridged meters.</p>	Still existing
Changes to registry information	3.3	10 Schedule 11.1	Some status and trader updates were not processed within five business days of the event on the registry.	Still existing
Trader responsibility for an ICP	3.4	11.18	<p>GENE</p> <p>Four incorrect MEP nominations.</p>	Still existing
Provision of information to the registry manager	3.5	9 of schedule 11.1	<p>GENE</p> <p>4,000 late updates for new connections (72.36% updated within five business days).</p> <p>15 of a sample of 48 ICPs of a possible 1,952 ICPs had the incorrect first active date (31% error rate).</p> <p>Three discrepancies from the last audit still present.</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
			<p>GENH</p> <p>69 late updates for new connections (71.25% updated within five business days).</p> <p>One incorrect active date from the previous audit not yet resolved.</p> <p>One of a sample of 20 ICPs of a possible 27 ICPs had the incorrect first active date (5% error rate).</p> <p>GEOL</p> <p>19 late updates for new connections (62.00% updated within five business days).</p> <p>Two of a sample of 16 ICPs of a possible 34 ICPs had the incorrect first active date (12.5% error rate).</p> <p>Four discrepancies from the last audit still present</p>	
ANZSIC codes	3.6	9(1)(k) of schedule 11.1	<p>GENE</p> <p>13 ICPs of a total of 35 ICPs checked with a category 2 meter and incorrectly recorded as residential.</p> <p>Eight ICPs of a sample of 100 ICPs checked with an incorrect ANZSIC code recorded. 8% error rate.</p> <p>GEOL</p> <p>One ICP with a T99 ANZSIC code, which has now been updated.</p> <p>Three ICPs of a total of six ICPs checked with a category 2 meter and incorrectly recorded as residential.</p> <p>Eight ICPs of a sample of 80 ICPs checked with an incorrect ANZSIC code recorded. 10% error rate.</p> <p>GENH</p> <p>One ICP of a sample of 50 ICPs checked with an incorrect ANZSIC code recorded. 2% error rate.</p>	Still existing
Changes to unmetered load	3.7	Clause 9(1)(f) of Schedule 11.1	<p>GENE</p> <p>Two ICPs incorrectly had unmetered load recorded.</p> <p>Two ICPs with the incorrect unmetered daily kWh load recorded.</p>	Still existing
Management of "active" status	3.8	17 Schedule 11.1	<p>GENE</p> <p>15 of a sample of 48 ICPs of a possible 1,952 ICPs had the incorrect first active date (31% error rate).</p> <p>GEOL</p> <p>Two of a sample of 16 ICPs of a possible 34 ICPs had the incorrect first active date (12.5% error rate).</p> <p>GENH</p> <p>One of a sample of 20 ICPs of a possible 27 ICPs had the incorrect first active date (5% error rate).</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
Management of "inactive" status	3.9	19 Schedule 11.1	<p>GENE</p> <p>Two incorrect inactive reason statuses.</p> <p>Two of a sample of ten inactive ICPs with consumption have not been corrected to ensure all affected volume is included in the submission process.</p> <p>GEOL</p> <p>One incorrect inactive status date.</p>	Still existing
Losing trader response to switch request and event dates - standard switch	4.2	3 and 4 Schedule 11.3	<p>GENE</p> <p>Three ET breaches.</p> <p>One AN had a proposed event date more than ten business days of the NT receipt date.</p> <p>All five "AA" AN files sampled of a possible 34 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>GEOL</p> <p>Five ET breaches.</p> <p>One AN had a proposed event date more than ten business days of the NT receipt date.</p> <p>All four "AA" AN files with potentially incorrect AN codes were confirmed as incorrect. Three should have been AD and one should have been PD.</p>	Still existing
Losing trader must provide final information - standard switch	4.3	5 Schedule 11.3	<p>The average daily consumption calculation is not calculated from the last read period.</p> <p>GENE</p> <p>All five ICPs checked of a possible 46 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>Five CS files were sent with a last actual read date after GENE's period of supply.</p> <p>Four E2 breaches.</p> <p>GEOL</p> <p>All five ICPs checked of a possible nine were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>Two ICPs sent with a last actual read date after GENE's period of supply.</p> <p>Two E2 breaches.</p>	Still existing
Retailers must use same reading - standard switch	4.4	6(1) and 6A Schedule 11.3	<p>GENE</p> <p>Two RR breaches.</p> <p>Three incorrect start reads in Derive+ where RR files have been processed in Gentrack. Under submission of at least 3,155 kWh has occurred.</p> <p>GEOL</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
			Ten RR breaches.	
Gaining trader informs registry of switch request - switch move	4.7	9 Schedule 11.3	<p>GENE</p> <p>One late NT file.</p> <p>Two incorrect switch types of MI instead of TR.</p> <p>GENH</p> <p>All of a sample of five ICPs sent incorrectly as a MI switch instead of TR and not sent within two business days of the pre-conditions being met.</p>	Still existing
Losing trader provides information - switch move	4.8	10(1) Schedule 11.3	<p>GENE</p> <p>One AN had proposed event dates more than ten business days after the NT receipt date.</p> <p>Five ET breaches.</p> <p>One E2 breach.</p> <p>All five "AA" AN files sampled of a possible 20 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>Three "AD" AN files sampled of a possible 85 ICPs sent with the incorrect code. "AA" should have been sent.</p> <p>All seven "MU" AN files sampled of a possible 10 ICPs sent with the incorrect AN code.</p> <p>GEOL</p> <p>Two ANs had proposed event dates more than ten business days after the NT receipt date.</p> <p>One AN had a proposed event date before the gaining trader's requested date.</p> <p>Three ET breaches.</p> <p>One E2 breach.</p> <p>All five "AA" AN files sampled of a possible 15 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>ICP 0000147039UNCD6 sent with the incorrect "MU"AN code.</p>	Still existing
Losing trader must provide final information - switch move	4.10	11 Schedule 11.3	<p>The average daily consumption calculation is not calculated from the read-to-read period.</p> <p>GENE</p> <p>All five ICPs sampled of a possible 99 where the last read date was shown as the last billed date but the last read date was earlier.</p> <p>Two ICPs with an incorrect read date after the period of supply.</p> <p>One ICP with a last read date on the event date.</p> <p>One ICP with incorrect average daily consumption.</p> <p>GEOL</p> <p>All five ICPs sampled of a possible 23 where the last read date was shown as the last billed date but the last read date was earlier.</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
			Estimated reads sent when actual reads were available for ICPs 0000006760DE9DB and 0000006824TRDAC processed during the last audit.	
Gaining trader changes to switch meter reading - switch move	4.11	12 Schedule 11.3	GENE 54 RR breaches. Two incorrect start reads in Derive+ where RR files have been processed in Gentrack. Over submission of at least 150 kWh has occurred. GEOL Ten RR breaches.	Still existing
Gaining trader informs registry of switch request - gaining trader switch	4.12	14 Schedule 11.3	Three late NT files.	Still existing
Withdrawal of switch requests	4.15	17 and 18 Schedule 11.3	GENE Nine incorrect NW codes of a sample of 21 ICPs checked. Three NW files sent in error. 35 SR breaches. 200 NA breaches. GEOL Three incorrect NW codes of a sample of 15 ICPs checked. Three NW files sent in error. Nine SR breaches. 92 NA breaches.	Still existing
Metering information	4.16	16 Schedule 11.3	GEOL Estimated reads sent when actual reads were available for ICPs 0000006760DE9DB and 0000006824TRDAC processed during the last audit.	Cleared
Unmetered threshold	5.2	10.14 (2)(b)	GENE Seven ICPs with unmetered load over 6,000 kWh per annum.	Still existing
Unmetered threshold exceeded	5.3	10.14 (5)	GENE Unmetered load over 6,000 kWh per annum and not resolved within the allowable timeframes.	Still existing
Distributed unmetered load	5.4	11 Schedule 15.3	GENE Inaccurate submission information for several databases. Six database audit reports not finalised.	Still existing

Subject	Section	Clause	Non-compliance	Status
Electricity conveyed & notification by embedded generators	6.1	10.13, Clause 10.24 and 15.13	<p>GENE</p> <p>17 ICPs of the sample of 20 checked of a possible 170 ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>Eight of the ICPs reported in the 2022 audit that were generating have not been corrected.</p> <p>29 ICPs did not have a settled I flow register present but were recorded with the RPS PV1 profile.</p> <p>ICP 0001447794UNFFA has a fuel type of Wind but the profile code PV1 has been applied.</p> <p>GEOL</p> <p>27 ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>Four ICPs did not have a settled I flow register present but were recorded with the RPS PV1 profile.</p> <p>Two ICPs (1000027076BPD40 and 0002211560TGAA7) have a fuel type of Wind but the profile code PV1 has been applied.</p> <p>Bridged meters</p> <p>GENE</p> <p>77 AMI meters were bridged during the audit period. While meters are bridged energy is not quantified in accordance with the code.</p> <p>GEOL</p> <p>An unknown number of meters are bridged each month. While meters are bridged energy is not quantified in accordance with the code.</p>	Still existing
Collection of information by certified reconciliation participant	6.5	2 Schedule 15.2	<p>Time Sync reports not reviewed for all AMI MEPS.</p> <p>Raw meter data not corrected for HHR ICP 0000139594UNCEE on four occasions where the time correction exceeded 7,000 seconds.</p> <p>A sample of ten GENE and ten GEOL ICPs identified that the max interrogation cycle has expired remain as HHR submission type but on interval data interrogation has occurred in all cases.</p>	Cleared
Derivation of meter readings	6.6	3(1), 3(2) and 5 Schedule 15.2	<p>GEOL</p> <p>No consistent action taken to address the ICP with signs of electrically unsafe or tampering/damage. No follow up where service requests are turned down due to access issues, and H&S letters not followed up where consumers do not respond.</p>	Still existing
NHH meter reading application	6.7	6 Schedule 15.2	<p>GENE</p> <p>One instance where no actual validated meter read used to transition an ICP between HHR and NHH submission type.</p> <p>NHH meter reading was not applied at 2400 on the day of the meter reading for upgrade to HHR for ICP 0000208520TE920.</p> <p>GEOL</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
			Two incorrect last reads sent of those sampled resulting in 157 kWh being pushed to the gaining trader.	
Interrogate meters once	6.8	7(1) and (2) Schedule 15.2	<p>GENE</p> <p>Three of the sample of ten ICPs unread during the period of supply did not have exceptional circumstances and, the best endeavours requirement was not met.</p> <p>GEOL</p> <p>Eight of the sample of ten ICPs unread during the period of supply did not have exceptional circumstances and, the best endeavours requirement was not met.</p>	Still existing
NHH meters interrogated annually	6.9	8(1) and (2) Schedule 15.2	<p>GENE</p> <p>Five of a sample of 14 ICPs unread in the 12 months ended November 2022, did not have exceptional circumstances and the best endeavors requirement was not met.</p> <p>GEOL</p> <p>Two of the sample of 11 ICPs unread in the 12 months ended November 2022, did not have exceptional circumstances and the best endeavors requirement was not met.</p>	Still existing
NHH meters 90% read rate	6.10	9(1) and (2) Schedule 15.2	<p>GENE</p> <p>Exceptional circumstances did not apply, and the best endeavours requirement was not met for 12 of the 18 ICPs sampled.</p> <p>GEOL</p> <p>Exception circumstances did not apply, and the best endeavours requirement was not met for 11 of 21 ICPs sampled.</p>	Still existing
Correction of NHH meter readings	8.1	19(1) Schedule 15.2	<p>NHH correction for ICP 0006111807RNF8E relating to a phase failure was not performed.</p> <p>Where errors occur for a period longer than 14 months the volume correction applied is only a subset (14 months) of the affected period.</p>	Cleared
Correction of HHR metering information	8.2	19(2) Schedule 15.2	<p>Not all HHR detected errors are investigated and corrections performed.</p> <p>Extended period estimations not corrected or resolved in a timely manner where an AMI meter stops communicating.</p>	Still existing
Meter data used to derive volume information	9.3	3(5) of schedule 15.2	<p>Some data collected by Stark is rounded when collected from the metering installation.</p> <p>AMI meter reading data is truncated for import into Gentrack and Derive+.</p>	Still existing
Half hour estimates	9.4	15 Schedule 15.2	Reasonable endeavors not met where default estimation methodology applied due to extended estimation performed on long term non communication AMI ICPs.	Cleared

Subject	Section	Clause	Non-compliance	Status
NHH metering information data validation	9.5	16 Schedule 15.2	GENE and GEOL Not all inactive consumption is being captured.	Cleared
Electronic meter readings and estimated readings	9.6	17 Schedule 15.2	GENE and GEOL Not all AMI meter event logs are reviewed to identify and investigate any that may affect the integrity of metering data.	Cleared
Buying and selling notifications	11.1	15.3	HHR Seller (I direction) trading notification for KOE1101 was not notified to the Reconciliation Manager prior to the commencement of trading.	Cleared
HHR aggregates information provision to the reconciliation manager	11.4	15.8	Hau Nui Wind Farm ICPs 0696299004PC30D and 0696299005PCF48 are missing from the HHRAGGS file.	Still existing
Creation of submission information	12.2	15.4	<p>GENE and GEOL</p> <p>ICP (0795798202LCD5F) switched away prior to being unbridged. No correction was applied for the affected bridged period.</p> <p>Six ICPs identified during the previous audit did not have corrections applied prior to the bridged period moving outside the available revision window.</p> <p>Raw meter data not corrected for HHR ICP 0000139594UNCEE on four occasions where the time correction exceeded 7,000 seconds.</p> <p>NHH volume correction not applied for ICP 0006111807RNF8E where a phase failure was reported by the AMI MEP.</p> <p>NHH volume correction not applied for ICP 0000039561UN5DA where a phase failure was reported by the AMI MEP.</p> <p>The Genesis policy around historic volume corrections is that they are only calculated and apportioned for the previous 14 months to align with the revision window. Where an error has been detected for a longer period of time, only a subset of the correction is applied.</p> <p>ICP 0001450409UN0C4 the registry status was updated to “active” and back dated to November 2020 in October 2022. The cause of this extended period correction of status is that not all active consumption (31,131 kWh) will be recorded in the available revision window.</p> <p>ICP 0336105029LCA81, no “active” status update was applied to the status prior to the ICP switching away resulting in 151 kWh is not being included in the submission process.</p> <p>Unmetered volumes for 260 GENE and 39 GEOL unmetered ICPs are not included in submission with an annual volume of 20,786 kWh and 3,197 kWh.</p> <p>HHR volumes for day of disconnection not included in submission.</p> <p>GENH</p>	Still existing

Subject	Section	Clause	Non-compliance	Status
			Unmetered load volumes not being submitted in NHH submission for two ICPs.	
Accuracy of submission information	12.7	15.12	GENE and GEOL Some submission data was inaccurate and was not corrected at the next available opportunity. GENH Unmetered load not reported for two ICPs.	Still existing
Permanence of meter readings for reconciliation	12.8	4 Schedule 15.2	GENE and GEOL Some estimates were not replaced with permanent estimates by revision 14. Some UML incorrectly labelled as Forward Estimates.	Cleared
Reconciliation participants to prepare information	12.9	2 of schedule 15.3	GENE Shared unmetered load volumes not submitted since the implementation of Derive+. GEOL Shared unmetered load volumes not submitted since the implementation of Derive+. GENH Unmetered load volumes not submitted since the implementation of Derive+.	Cleared
Historical estimates and forward estimates	12.10	3 Schedule 15.3	GENE and GEOL Unmetered load was incorrectly labeled as Forward Estimate volumes for some consumption periods.	Cleared
Forward estimate process	12.11	4 Schedule 15.3	GENE and GEOL UML volumes have not been calculated where there is both metered and unmetered load present and the profile code recorded on the registry is RPS only.	Cleared
Forward estimate process	12.12	6 Schedule 15.3	GENE and GEOL The accuracy threshold was not met for some months and revisions, because forward estimate was too high or too low.	Still existing
Compulsory meter reading after profile change	12.13	7 Schedule 15.3	GENE One validated meter reading or a permanent estimate was not applied where a profile change occurs for ICP 0000466425WE09B.	Cleared
Historical estimate reporting to RM	13.3	10 Schedule 15.3	GENE and GEOL Historic estimate thresholds were not met for some revisions.	Still existing

Table of Recommendations

Subject	Section	Recommendation	Status
Relevant information	2.1	Ensure trader and status reports are run and actioned at least monthly.	Adopted
Data transmission	2.3	Eliminate the current data transmission workaround for Hau Nui Wind farm replacing this with an integrated solution to ensure ICPs are also included in the ICPDAYS and HHRAGGS reports.	Adopted
Disconnection methods	2.16	Require disconnection and reconnection contractors to provide a photo whenever disconnection or reconnection occurs at the metering point, to ensure seals are intact and that the disconnection method will ensure the customer cannot reconnect themselves.	Repeated in section 9.5
Meter bridging	2.17	Implement monitoring of bridged meters to ensure the process is tracked and controlled from start to finish. Use this monitoring to work with the AMI MEPs to find way to reduce the frequency of meter bridging and subsequent impacts to submission.	New recommendations made
Changes to unmetered load	3.7	Identify changes to distributor unmetered load to identify instances where unmetered load is changed or removed.	Adopted
Changes to unmetered load	3.7	Put a process in place to monitor long term BTS supplies.	In progress
Disconnection and reconnection reads	3.8	Develop a process to enter reconnection reads where they are available and continue to liaise with contractors to obtain as many disconnection and reconnection reads as possible.	Repeated in section 9.5
Disconnection and reconnection reads	3.8	Develop a process to manually enter disconnection and reconnection reads where they are available.	Repeated in section 9.5
Monitoring of new and ready ICPs	3.10	Run a monthly list from the registry of all ICPs where GENE or GEOL are the proposed trader to ensure Gentrack records align.	Adopted
Derive start reads	4.4	Compare Gentrack start reads vs Derive+ start reads for the previous 14 months.	Not adopted
Installation of compliant metering for generating ICPs	6.1	For any ICP where generation is present, either: <ul style="list-style-type: none"> ensure that compliant metering is installed, and monitor and follow up any jobs to be completed or approved, or advise the reconciliation team that compliant metering has not been installed, so that a notification of gifting can be provided to the reconciliation manager in a timely fashion. 	In progress
ICPs switching in with DG that require meter upgrades	6.1	Extend the switching process to identify ICPs where the network event installation type is set to 'B' at time of acquisition to enable the HomeGen team to engage with the customer during the switch process to complete the HomeGen application to enable Genesis to arrange a meter upgrade.	Adopted
Review of Wells meter condition information	6.6	Add agenda item to Wells meter reading operation meeting to review frequency of phase failure being identified by meter readers compared to AMI providers via meter event logs. Where power quality incidents cause phase failure within a region both AMI and non-AMI metering data providers should identify a similar number of phase failures per capita.	Adopted
Review process of transitioning ICPs	6.8	Add an additional step to the process of transitioning an ICP to a manual read route/sequence where a communication fault has been identified	Adopted

Subject	Section	Recommendation	Status
from AMI read sequences to manual read sequences where comms faults are identified to include review of submission type.		or where an AMI MEP updates the AMI communicating flag of the registry to 'N' to include a check on the submission type and where an ICP is being settled as HHR then update this to NHH from a date where a suitable boundary read is present.	
Increase frequency of review of ICP suitability for HHR settlement	9.4	Increase frequency of process to review suitability of HHR settlement of ICPs to reduce impact of long periods of HHR estimations where meters have been identified by MEPs as non-communicating.	Adopted
Improve Gentrack consumption pattern validation by implementing meter register level consumption pattern checks	9.5	Implement meter register level consumption validation that will identify a sudden/unexpected change in consumption pattern for each meter register to better support processes to identify phase failure, stopped/faulty meters or the recent installation of distributed generation.	Being considered
Develop a central register of all potential bridged/stopped meters.	9.5	Implementing a central register across all participant codes will ensure all potential exceptions are fully investigated, resolved, and where required consumption corrections made. This central register will also enable root cause analysis to be conducted in order to support initiatives to reduce the incidence of bridged/stopped meters.	Not adopted
Improve disconnection read capture.	9.5	Refine data capture processes around disconnections and reconnection to retrieve actual reads from either the AMI meter read tables or the work requests to improve the accuracy of the inactive consumption report.	Repeated
Inactive Consumption Report	9.5	Inactive consumption report should use registry trader tenure and status information as the source to determine the inactive periods to assess if any consumption has been detected.	Not repeated
Identification and escalation of missing AMI interval data to MEPs.	9.6	Develop and implement reporting of missing/estimated interval data used in submission and the process to escalate these instances to the relevant AMI MEP for resolution.	Not repeated
Review historic unmetered load records where no description of unmetered load is present	12.2	Work with Wellington Electricity and other respective distributors to validate historic unmetered load records where the daily kWh value is 0.5 kWh per day and no retailer or distributor UNM record is available to determine if this unmetered load is still valid	Repeated
Review the operational characteristics of 72 unmetered payphones recorded with 12 hours of operation	12.2	Work with the customer associated with 72 unmetered payphones recorded with 12 hours of operation and review the operational characteristics of these phones with a view to updating the registry if the information is found to be incorrect.	In Progress

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 AC020 reports were examined to identify any registry discrepancies, and to confirm that all information was correct and not misleading.

Audit commentary

Registry and static data accuracy

Gentrack updates to the registry on a daily basis. There is a dedicated team to manage registry discrepancies. Registry rejection notifications are managed on a daily basis. Some of these are managed by the registry discrepancy team and some are issued to the work area for action.

Registry discrepancy reports are run on a weekly basis to check for any discrepancies that are not captured through the registry notification process for all three codes (GENE and GEOL are run as one report and GENH is run separately). These are actioned either by the registry discrepancy team or issued to the relevant team to action.

The analysis of the list file and AC020 report returned the following findings for each code:

GENE

Issue	2024 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
ICPs at status (1,11) "disconnected at meter box" in the registry	7	5	5	11	7	6	10	8	See section 3.9 .
Status of (1,12) "new connection in progress" with an initial electrical	205	207	2,376	310	1,836	138	44	44	See sections 3.5 and 3.8 .

Issue	2024 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
connection date populated									
Incorrect statuses or status event dates	13	15	19	N/A	N/A	N/A	N/A	N/A	See sections 3.8 and 3.9.
Active with Blank ANZSIC codes	-	-	-	-	-	1	-	-	None found in this audit.
Active with ANZSIC T994/994000 "Don't know"	6	2	4	1	-	1	4	3	See section 3.6.
Active with ANZSIC "T999" not stated	-	-	-	-	-	-	-	-	None found in this audit.
Meter category 9 or blank and active with MEP and UML "N"	49	88	27	91	42	67	15	23	See sections 2.9 and 3.4.
Active ICP with no MEP	-	-	-	-	-	49	-	32	None found in this audit.
ICPs with distributor unmetered load populated but retail unmetered load is blank	9	6	3	3	12	13	2	17	All were timing differences. See section 3.7.
<u>Standard</u> unmetered load different to distributor field	2	3	58	157	76	42	10	10	See section 3.7.
ICPs with unmetered load flag Y but load is recorded as zero	77	69	51	39	43	-	-	-	75 were DUML ICPs. One was correct and one was not. See section 3.7.
<u>Shared</u> unmetered load ICPs with no UML		-	4	-	4	4	-	-	None found in this audit.
<u>Shared</u> unmetered load ICPs with incorrect load		-	4	-	4	-	-	5	None found in this audit.
Unmetered load differences between the registry and Derive+	-	-	2	-	-	-	-	-	No differences were found.

Issue	2024 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
Incorrect EG1 profiles	1	1	0	0	0	2	2,882	-	See section 6.1
Incorrect RPS profiles	0	23	20	14	97	372	-	-	
Incorrect PV1 profiles		29	2	0	1	10	-	-	Ten ICPs have a generation profile recorded on the registry but no I flow meter register flagged with a settlement indicator of 'Y' or generation details recorded by the distributor were present. See section 6.1 .
Generating ICPs without import/export metering or arrangements for gifting in place	5	15	14	-	-	-	-	-	Five ICPs with distributed generation present but no import export metering and therefore the incorrect profile recorded. See section 6.1 .

GEOL

Issue	2023 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
ICPs at status (1,11) "Disconnected at meter box" in the Registry	31	35	10	11	4	-	1	-	See section 3.9 .
Status of (1,12) "New connection in progress" or "ready" with an initial electrical connection date populated	0	3	104	-	91	16	5	8	None found in this audit.
Incorrect statuses or status event dates	-	2	2	N/A	N/A	N/A	N/A	N/A	None found in this audit.
Blank ANZSIC codes		-	-	-	-	-	-	-	None found in this audit.

Issue	2023 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	2017 Qty	Comments
ANZSIC T994/994000 "Don't know"	1	1	1	-	-	1	10	16	See section 3.6.
Active with ANZSIC "T999" not stated	-	-	-	-	-	-	-	-	None found in this audit.
Meter category 9 or blank and active with MEP and UML "N"	1	2	3	7	3	4	-	-	See sections 2.9 and 3.4.
Active ICP with no MEP	-	-	-	-	-	1	-	-	None found in this audit.
<u>Standard</u> unmetered load different to distributor field	-	-	-	1	-	6	-	-	None found in this audit.
ICPs with incorrect unmetered load	-	-	-	-	-	-	-	-	None found in this audit.
ICPs with Distributor unmetered load populated but retail unmetered load is blank and unmetered flag = N	-	-	-	1	-	1	9	-	None found in this audit.
ICPs with incorrect <u>shared</u> unmetered load	1	-	-	-	1	-	4	-	See section 5.1.
Incorrect EG1 profiles	0	2	0	0	0	50	69	-	See section 6.1.
Incorrect RPS profiles	9	3	17	1	9	-	-	-	See section 6.1.
Incorrect PV1 profiles	1	6	0	0	1	-	-	-	See section 6.1.

GENH

Issue	2024 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	Comments
ICPs at status (1,11) "De-energised at meter box" in the registry	-	-	-	-	-	-	-	None found this audit.
Status of (1,12) "New connection in progress" or "ready" with an initial	-	-	12	10	11	1	-	None found this audit.

Issue	2024 Qty	2023 Qty	2022 Qty	2021 Qty	2020 Qty	2019 Qty	2018 Qty	Comments
electrical connection date populated								
Active with Blank ANZSIC codes	-	-	-	-	-	-	-	None found this audit.
Active with ANZSIC T994/994000 "Don't know"	-	-	-	20	1	4	-	None found this audit.
Active with ANZSIC "T999" not stated	-	-	-	3	-	-	-	None found this audit.
Meter category 9 or blank and active with MEP and UML "N"	2	3	8	7	8	4	-	See sections 2.9 and 3.4 .
Active ICP with no MEP	-	-	-	-	-	-	-	None found in this audit.
ICPs with Distributor unmetered load populated but retail unmetered load is blank	-	-	-	1	1	1	-	None found in this audit.
<u>Standard</u> unmetered load different to distributor field	-	-	-	-	-	-	-	None found in this audit.
ICPs with unmetered load flag Y but load is recorded as zero	-	-	-	-	-	-	-	None found in this audit.
<u>Shared</u> unmetered load ICPs with no UML	-	-	-	-	-	-	-	No shared unmetered load is supplied.
<u>Shared</u> unmetered load ICPs with an unmetered load = zero	-	-	-	-	-	-	-	No shared unmetered load is supplied.
<u>Shared</u> unmetered load ICPs with incorrect load	-	-	-	-	-	-	-	No shared unmetered load is supplied.
Generating ICPs without import/export metering or arrangements for gifting in place	0	-	1	-	-	2	2	None found in this audit.

Other issues recorded are as follows:

- some incorrect statuses recorded,
- some incorrect ANZSIC codes, and
- some late status updates and trader updates.

Read and volume data accuracy.

Read and volume accuracy issues are identified in the validation processes described in detail in **sections 9.5 and 9.6**. I checked a sample of NHH corrections as described in the table below:

Subject	Section	Comments	All practicable steps taken?
Defective meters	2.1, 12.2	<p>Defective meters are typically identified from information provided by the meter reader, agent, the MEP, or the customer. Upon identifying a possible defective meter, a field services job is raised to investigate and resolve the defect, and a consumption correction is processed if necessary. Corrections are normally processed by recording an estimated closing read on the replaced meter, which is calculated using the daily average consumption for the new meter or the replaced meter prior to the fault. This process was used for those ICPs where corrections were conducted.</p> <p>ICP 0000027221UN85C did not have a correction conducted for the entire period. The corrections needed to be for NHH up until the end of February 2023 (72 days) then HHR for the 1st to the 23rd of March 2023. The HHR correction was conducted but not the NHH correction.</p> <p>ICP 0063099483WE8B9 had a stopped meter, however the correction was not conducted for the entire period the meter was stopped.</p>	No
Incorrect multipliers	8.2	<p>If an ICP with an incorrect multiplier is unbilled the multiplier will be replaced. If the ICP has one or two invoices, the invoice(s) will be reversed, the multiplier will be corrected, and then the ICP will be re-invoiced. The corrected data will flow from Gentrack to Derive+ overnight.</p> <p>If the ICP has more than two invoices, it is corrected by reloading the metering with the correct multiplier and transferring the reads to the reloaded meter. The corrected details flow from Gentrack to Derive+ overnight.</p> <p>I reviewed 25 multiplier corrections for GENE and confirmed that the corrected data flowed through to revision submissions for all of the ICPs.</p>	Yes
Bridged meters	2.1,2.17, 6.4	<p>Bridged meters are identified through a key word query that scans across all returned service request paperwork looking for words and phrases that indicates a meter has been bridged or bypassed. A summary spreadsheet was provided of 97 bridged meters for GENE, which showed that the process was not always operating as intended.</p> <p>GENE</p> <p>Consumption for the bridged period has not been submitted for seven ICPs and has not been correctly apportioned across the bridged period for three ICPs.</p> <p>GEOL</p> <p>The GEOL process for bridging and un-bridging meters is manual, however reporting is now in place to monitor bridging examples.</p>	No

		Consumption for the bridged period has not been submitted for four ICPs.	
Consumption while inactive	3.3, 12.7	<p>At the time of the audit there were 5,394 ICPs identified where consumption identified is greater than 1 kWh with a volume of inactive consumption of over 764,566 kWh. These are being worked through with the higher volume records being investigated first. The oldest exception is from 1991.</p> <p>During the audit I checked 20 ICPs and found they were all appropriately resolved.</p>	Yes
Unmetered load corrections	2.1, 3.7	<p>Derive+ uses the daily kWh value on the registry as its source of unmetered load information.</p> <p>GENE</p> <p>The AC020 report recorded 27 ICPs where the daily unmetered kWh differed from the recalculation based on the distributor information by more than ± 0.1 kWh. All were examined and found:</p> <ul style="list-style-type: none"> • 33 were DUML ICPs and are compliant, • as recorded in the last audit, ICP 0000842905WPDC2 had zero recorded and this is correct based on the distributor and trader unmetered load details, and • ICP 0006097006RND4F was “active” with GENE from 2 December 2023 to 6 September 2023 with an unmetered load of zero and has been decommissioned since 2013 and has been pending decommission since 1 May 2013; the network requested GENE reverse the pending decommission and make it ready for decommissioning from 7 September 2023 causing the ICP to be recorded as “active” which has caused GENE to be non-compliant for the incorrect status and is recorded as non-compliance above (incorrect status) and in section 3.9. 	Yes
Zeroing of NSP rows in AV080 files	12.2	<p>The submission file zeroing process is managed within MSD. MSD identifies any contracts which are open during the submission period where an aggregation line has not been provided. The reconciliation team review these exceptions and use scripts to create dummy ICPs in Derive+ with zero consumption and the appropriate aggregation factors, which will be incorporated into the AV080 report as zero lines.</p> <p>GR170 and AV080 files for nine months and revisions each for GEOL and GENE were compared and most found to contain the same NSPs, confirming that zeroing is occurring as required.</p> <p>I found 33 NSPs for various revisions where zeroing had not occurred. This was mainly due to a query in Derive+ where there the comparison to identify rows to be zeroed only looked back at the last revision not all revisions. This matter is now resolved. The total over submission is 10,661 kWh and 9,525 kWh cannot be corrected because the 14-month revision period has passed.</p>	Yes
Default consumption for DUML ICPs	2.1	Derive+ was adding default consumption of 25 kWh per day to DUML ICPs where consumption was already submitted. This matter was resolved as soon as it was identified.	Yes

As detailed in **sections 4.4** and **4.11**:

GENE

- four incorrect start reads in Derive+ out of a sample of ten of a possible 67 ICPs checked where RR files have been processed in Gentrack, and
- four of a sample of ten of a possible 311 RR files were incorrect:
 - three had the correct read in Gentrack but the incorrect read in Derive+, and
 - one RR read not recorded correctly in Gentrack and Derive+; these errors have resulted in an over submission of 6,075 kWh.

GEOL

- one incorrect start read in Derive+ out of a sample of four checked of a possible 13 ICPs where RR files have been processed in Gentrack resulting in an over submission of 258 kWh, and
- six of a sample of ten of a possible 41 RR files were incorrect; all had the correct read in Gentrack but the incorrect read in Derive+ resulting in an over submission of 12,845 kWh.

Discussion during the site visit identified that RR reads weren't always flowing through to Derive+. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly.

I checked the issues identified for GENE and GEOL in the previous audit and found all corrections had been conducted, except where investigators are still underway.

GENH

All read and volume issues were resolved as soon as practicable.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 2.1 With: Clause 15.2 From: 01-Jan-23 To: 16-Nov-23	Some inaccurate data is recorded and was not updated as soon as practicable. Potential impact: High Actual impact: Medium Audit history: Multiple times Controls: Moderate Breach risk rating: 4	
Audit risk rating	Rationale for audit risk rating	
Medium	The controls are recorded as moderate overall as there is still room for improvement. The impact is assessed to be medium based on kWh impacts to the market for volumes not reconciled within 14 months.	
Actions taken to resolve the issue	Completion date	Remedial action status

The issue regarding RRs not flowing through to Derive + has now been investigated and corrected. We have made great progress regarding the management / correction of bridged meters and to further improve these have implemented the recommendation contained in this audit	01/04/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
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

I checked the process and audit trail of NHH and HHR meter reading data, AMI data, and generation data.

- EDMI provide HHR data to Bluecurrent,
- Bluecurrent provides NHH AMI data and HHR data as an agent through the data store (DRDS) and directly into the Market Submission Database (MSD),
- Wells provides NHH data as an agent via SFTP, and
- generation data is collected using Stark.

Theta (a technical services provider) monitors HHR data and readings entered into GDW, daily reads at register level are entered into DRDS and makes sure that files are loaded and pass validation. Any issues are referred to the respective AMI MEP and the Genesis reconciliation team.

I checked the process and audit trail of NHH and HHR meter reading data, AMI data, and generation data:

- Bluecurrent (NGCM, ARCS, SMCO), Intellihub (IHUB, MTRX) and Influx (FCLM) provide NHH AMI data and HHR data as an agent through the data store (DRDS) and directly into the Market Submission Database (MSD),
- Wells provides NHH data as an agent via SFTP, and
- generation data is collected using Stark.

Bluecurrent acts as an agent for data transmission for GENH, and compliance was assessed as part of their agent audit.

Audit commentary

GENE and GEOL

AMI and HHR data are loaded into GDW and MSD by the AMI MEP/data collector, which stores daily readings and interval data. Gentrack receives data from GDW according to an automated schedule. Readings are transferred from Gentrack to Derive+ for NHH settled ICPs overnight. To confirm the process:

- I traced readings for two NHH settled ICPs to Gentrack and Derive, and
- I traced Interval data for two HHR settled ICPs to MSD.

Wells readings are loaded directly into Gentrack, and then transferred to DRDS and Derive+ overnight. To confirm the process, I traced readings for ten manually read ICPs from the read files provided by Wells to Gentrack and Derive+. All readings matched.

GENE ICPs 0696299004PC30D and 0696299005PCF48 relate to the local service load (X Direction) for Hau Nui wind farm. The Genesis finance team read the meters and the raw data is loaded into MSD and submission occurs in the GENE HHR vols file. ICP days are also correctly submitted.

GENH

The Bluecurrent report confirms compliance.

Generation

Data is securely collected by Stark after each half hour period ends via each meter's IP address. A check of raw data for two stations against submission information confirmed accuracy.

Audit outcome

Compliant

2.4. Audit trails (Clause 21 Schedule 15.2)

Code reference

Clause 21 Schedule 15.2

Code related audit information

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

The audit trail must include details of information:

- *provided to and received from the registry manager,*

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

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

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

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

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

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

Audit observation

A complete audit trail was checked for all data gathering, validation and processing functions. I 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

GENE and GEOL

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

GENH

The Bluecurrent report confirms compliance.

Generation

Stark contains a compliant audit trail, and all users have individual logins. Email trails are also retained for any estimates or corrections.

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 the current terms and conditions.

Audit commentary

GENE and GEOL's terms and conditions include 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 the current terms and conditions and discussed compliance with these clauses.

Audit commentary

GENE and GEOL's terms and conditions include consent to access for authorised parties for the duration of the contract. Genesis has robust processes in place to make best endeavours to provide access with multiple attempts using different channels to engage the customer. Access had not been gained for five GENE ICPs. Efforts are continuing to arrange access.

Audit outcome

Compliant

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

Code reference

Clause 10.35(1)&(2)

Code related audit information

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

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

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

Audit observation

A discussion was held regarding knowledge of any ICPs with loss compensation present. The presence of loss compensation factors was checked.

Audit commentary

Genesis is not responsible for any metering installations with loss compensation factors.

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 the current terms and conditions.

Audit commentary

GENE and GEOL'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 one or more metering installations for the point of connection.*

Audit observation

The new connection processes were examined in detail to evaluate the strength of controls, and the registry list and audit compliance reports were examined to confirm process compliance. Late updates to "active" for new connections are discussed in **section 3.5**.

Audit commentary

GENE and GEOL have blanket acceptance agreements in place with some networks. For those that require an acceptance of trader nomination, Genesis sends an acceptance. All ICPs at "ready" in the registry where GENE or GEOL are the nominated trader are automatically claimed using an interface tool (MULE). This raises a case for a new connection process in Salesforce, and the customer is contacted to confirm the new connection.

GENE The process in Salesforce is automated so once the customer is confirmed and all the required details have been completed, Salesforce issues a service request. At the same time as the ICP is claimed, the MEP nomination is expected to be sent to the registry. This is not happening in all instances, which can cause delays in updating the registry to push through the MEP nomination and complete the new connection. This is being monitored and managed more closely. Once the service request is returned, and providing all the details are complete, Salesforce automatically closes the service request and this updates to Gentrack which then updates the registry. If the service order is unable to be autocompleted an exception is sent to a work queue. These are then reviewed and actioned by the new connection team through to completion.

The AC020 report recorded 49 "active" ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ten were timing differences; the ICP had metering details added after the report was run,
- 38 had accepted MEP nominations and were awaiting the update of metering details by the MEP, and
- ICP 0000769007WACB3 has since been decommissioned and the customer billed from the meter removal reads.

I re-checked the three ICPs recorded as having their metering removed in the previous audit and found that two are decommissioned. ICP 0001450409UN0C4 is metered but the metering has not been loaded to the registry by the MEP.

GEOL GEOL has not been dealing with new connections since the end of 2022, therefore all reference to new connections relates to historic issues.

GEOL does not use Salesforce. The few remaining new connections continue to be managed via email inboxes.

All “active” ICPs have an MEP recorded. The AC020 report recorded one “active” ICP with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 0000160513EN3FB was checked and the MEP had updated the metering details prior to the on-site audit.

GENH Status updates are conducted manually in the registry once metering details are received. In most cases the data collection agent notifies by way of load test or a “billing output” file that data collection has commenced. The status is updated at this time.

All “active” ICPs have an MEP recorded. The AC020 report recorded two “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 1001142422UN978 was a timing difference and metering details were added after the report was run, and
- ICP 0087020011WE8F5 was decommissioned for the same date as the metering was removed.

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 a MEP to temporarily electrically connect a point of connection, only if:

- *for a point of connection to the grid – the grid owner has approved the connection,*
- *for an NSP that is not a point of connection to the grid - the relevant distributor has approved the connection,*
- *for a point of connection that is an ICP, but is not as NSP:*
- *the reconciliation participant is recorded in the registry as the trader responsible for the ICP,*
- *if the ICP has metered load, one or more certified metering installations are in place,*
- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the temporary electrical connection.*

Audit observation

The new connection process was examined in detail.

Audit commentary

GENE

GENE have changed the structure of the new connections team so that there are two seniors leading the team and managing exceptions. This focus has seen good improvement in this area as detailed below.

GENE usually claims ICPs at 1,12 “inactive - new connection in progress” status which helps to ensure that the trader is recorded on the registry if an ICP is temporarily electrically connected.

This audit found 17 new connections where the meter certification date was before the “active” status. This is an improvement from the 117 ICPs found in the last audit. I checked an extreme sample of five ICPs date to determine if temporary electrical connection had occurred:

- four of the five had incorrect “active” event dates, which is discussed further in **section 3.8**, and
- ICP 1002167629LC299 switched in from another trader at the “inactive - new connection in progress” status so the first active date is the Genesis gain date; this is a non-compliance for the other trader and has been passed to their auditor to be examined as part of their Reconciliation Participant audit.

GEOL

GEOL has not been undertaking new connections since December 2022. If a new connection is completed, they usually claim the ICPs at 1,12 “inactive - new connection in progress” status which helps to ensure that the trader is recorded on the registry if an ICP is temporarily electrically connected.

This audit found one ICP that had a meter certification prior to the first active date. ICP 1002167631LCA20 switched in from another trader at the “inactive - new connection in progress” status so the first “active” date is GEOL’s gain date. This is a non-compliance for the other trader and has been passed to their auditor to be examined as part of their Reconciliation Participant audit.

GENH

GENH usually claims ICPs at 1,12 “inactive - new connection in progress” status which helps to ensure that the trader is recorded on the registry if an ICP is temporarily electrically connected.

ICP 1002175294UN2C4 had a certification date before the “active” status date. The load was confirmed as having commenced on 24 April 2023 by the MEP providing the HHR data stream. The meter must have been certified using a load bank on 20 April 2023.

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:*
 - *the trader is recorded in the registry as the trader responsible for the ICP or has an arrangement with the customer and initiates a switch within two business days of electrical connection,*
 - *if the ICP has metered load, one or more certified metering installations are in place,*

- *if the ICP has not previously been electrically connected, the relevant distributor has given written approval of the electrical connection.*

Audit observation

The new connection process was 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

Active ICPs without metering

The AC020 report was reviewed to identify active ICPs without metering or unmetered load for each participant code.

GENE All “active” ICPs have an MEP recorded. The AC020 report recorded 49 “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ten were timing differences and the ICP had metering details added after the report was run,
- 36 had accepted MEP nominations and were awaiting the update of metering details by the MEP, and
- ICP 0000769007WACB3 has since been decommissioned and the customer billed from the meter removal reads.

I re-checked the three ICPs recorded as having their metering removed in the previous audit and found that two are decommissioned. ICP 0001450409UNOC4 is metered but the metering has not been loaded to the registry by the MEP.

GEOL All “active” ICPs have an MEP recorded. The AC020 report recorded one “active” ICP with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 0000160513EN3FB was checked and the MEP had updated the metering details prior to the on-site audit.

GENH All “active” ICPs have an MEP recorded. The AC020 report recorded two “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 1001142422UN978 was a timing difference and metering details were added after the report was run, and
- ICP 0087020011WE8F5 was decommissioned for the same date as the metering was removed.

New Connections

The new connection process is detailed in **section 2.9**.

GENE The AC020 report recorded 98 new connections which were expected to be metered but did not have meter certification recorded within five business days of initial electrical connection. I checked a sample of ten ICPs with no meter certification details recorded on the AC020 report and the ten with the latest certifications post being made active and found:

- 19 were on the Electra network with an issue identified in the last audit where Wells is the contractor and were installing metering prior to the electrical connection then expecting a work order to return to certify the installations but GENE were unaware of this requirement causing new connections to be certified late; this issue has been

addressed and Wells now hang and certify the metering at the same time and the sample checked were all connected prior to the process change coming into effect, and

- the meter certification was loaded late for ICP 0000016781EADED.

GEOL GEOL has not been undertaking new connections since December 2022. The AC020 report did not record any new connections which were expected to be metered but did not have meter certification recorded within five business days of initial electrical connection.

GENH The AC020 report recorded two new connections which were expected to be metered but did not have meter certification within five business days of initial electrical connection. Both were certified late as the MEP didn't certify until later.

ICP	MEP	Active date	Certification date	Days overdue	ATH
0007215089RN5DF	AMCI	27 July 2023	10 October 2023	53	VCOM
0000054448HBDAD	AMCI	27 June 2023	10 July 2023	9	VCOM

Reconnections

Genesis have reporting in place to identify ICPs that are reconnected with expired metering and there is a process in place to get these recertified.

GENE The AC020 report recorded 222 metered ICPs that did not have full certification within five business days of reconnection. I checked a typical sample of ten ICPs and found:

- nine of the ten had been notified to the MEP, and
- records of notification to the MEP were not found for ICP 0038616528PC8C9.

GEOL The AC020 report recorded nine metered ICPs that did not have full certification within five business days of reconnection. I checked all nine ICPs and found:

- five have been notified to the MEP, and
- records of notification to the MEP were not found for the remaining four ICPs (0162605714LCE48, 0000060553CP9E0, 0000245183UNA05 and 0000057992TR541).

I recommend that the process is reviewed to ensure that all staff understand the requirement to notify the MEP if a site is reconnecting and the meter has an expired certification.

GENH The AC020 report did not record any metered ICPs which did not have full certification within five business days of reconnection.

Recommendation	Description	Audited party comment	Remedial action
Certification of metering on reconnection	Review the reconnection process to ensure that all staff understand the requirement to notify the MEP if a site is reconnecting and the meter has an expired certification.	We will review training material and attend team meetings to ensure they are aware of this requirement. However, we do have a process in place and the Market Settlements team notify MEPs if uncertified meters have been reconnected. This report is run daily	Identified

Bridged meters

Genesis provided a list of 107 bridged meters. I examined certification records in the registry for all ICPs and found.

GENE Nine of 97 were not recertified within five days.

GEOL Two of 10 were not recertified within five days.

GENH No bridged meters were identified during the audit period.

ICPs not recertified are shown in the tables below.

GENE

ICP	Bridge date	Un-bridge date	Certification date	MEP	Comments
1000007826BPC88	22 July 2023	9 August 2023	17 September 2019	BOPE	Certification cancelled from bridge date
0000165734CK27F	26 July 2023	14 August 2023	21 May 2021	NGCM	
0000152195UN112	28 July 2023	1 August 2023	20 February 2012	NGCM	
0000002312CP01E	9 August 2023	11 August 2023	3 October 2012	NGCM	
0495187267LC939	31 August 2023	6 September 2023	24 February 2021	MTRX	Certification cancelled from bridge date
0332441032LCCD5	1 September 2023	12 September 2023	27 September 2018	MTRX	Certification cancelled from bridge date
1000501883PC53B	14 September 2023	19 September 2023	3 May 2013	NGCM	
0000199245UN403	17 June 2023	10 August 2023	4 February 2021	MTRX	Certification cancelled from bridge date
0000153824UN74C	17 June 2023	19 July 2023	24 February 2021	MTRX	Certification cancelled from bridge date

GEOL

ICP	Bridge date	Un-bridge date	Certification date	MEP	Comments
0008004656CN66E	16 January 2023	16 January 2023	15 July 2015	COUP	
0005341124RN775	5 May 2023	5 May 2023	12 August 2019	NGCS	Certification expired 10 February 2024

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.11 With: Clause 10.33(a)</p> <p>From: 01-Jan-23 To: 16-Nov-23</p>	<p>GENE 98 new connections were not certified within five business days. 222 reconnections were not certified within five business days. Nine ICPs with bridged meters not recertified within five business days.</p> <p>GEOL Nine reconnections were not certified within five business days. Two ICPs with bridged meters not recertified within five business days.</p> <p>GENH Two new connections were not certified within five business days. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate as they will ensure compliance most of the time but the process to ensure certified metering is in place at the point of reconnection needs some improvement.</p> <p>Uncertified metering installations may be less accurate than certified metering installations, so there could be a minor impact on settlement. The audit risk rating is recorded as low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We will review training material and attend team meetings to ensure they are aware of this requirement. However, we do have a process in place and the Market Settlements team notify MEPS if uncertified meters have been reconnected. This report is worked daily.</p> <p>A recent realignment has seen The New Connection team reporting line change, they are now part of the Retail Operations team, and we are confident that this will help us to further improve compliance</p>		01/08/2024	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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 and controls within Gentrack were checked.

Audit commentary

Before Genesis begins trading on a new network, the commercial team enters into a UoSA and then advises the reconciliation team to create the new network in Gentrack. The schema of valid networks in Gentrack is used to check that a valid trading notification is in place.

Genesis did not begin trading on any new networks during the audit period. Previous audits have confirmed that there are arrangements in place with all other distributors where Genesis supplies ICPs.

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 examined and controls within Gentrack were checked.

Audit commentary

MEPs must be recorded in Gentrack before ICPs can be assigned to them.

Previous audits confirmed that Genesis has an arrangement in place with all MEPs that manage metering in relation to their customer base. The new connection process also contains a step that requires nomination of an MEP. MEP nomination rejections are monitored to ensure correction occurs if the incorrect MEP is nominated.

GENE, GEOL, and GENH did not begin using any new MEPs during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 10.33B

Code related audit information

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

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

Audit observation

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

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

Audit commentary

If an ICP is reconnected as part of the switching process and the switch is later withdrawn, the ICP is expected to be disconnected (unless requested by another trader for the same gain date) and Genesis will reimburse the losing trader for any direct costs incurred if requested.

One example of this not occurring was identified during the Mercury Reconciliation Participant audit. GEOL requested ICP 0010378144ELD9B as a transfer switch for 25 October 2021. The ICP had been remotely disconnected on 14 October 2021. Mercury believe the ICP was reconnected on or about 25 October 2021 as part of the switch in process. Mercury sent a wrong switch withdrawal request on 27 October 2021 and GEOL accepted this request, but the ICP was never re-requested as a move switch or disconnected. Mercury identified consumption on a disconnected vacant ICP via their revenue assurance programme. I recommend that this process is reviewed to ensure that all reconnected withdrawn switches are returned to disconnected unless requested by another trader for the same gain date. This is recorded as non-compliance.

Recommendation	Description	Audited party comment	Remedial action
Disconnection of reconnected withdrawn switches	Review the switch withdrawal process to ensure that all reconnected withdrawn switches are returned to disconnected unless requested by another trader for the same gain date.	We will review this process, however this is a very rare occurrence and we believe ensuring we advise the new retailers of the updated connection status may be a better outcome for all parties and ensure we are not in breach of the consumer care guidelines	Investigating

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.14 With: Clause 10.33A(5) From: 01-Jan-23 To: 16-Nov-23	GEOL One ICP gain reconnected and then withdrawn but not disconnected. 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 rated as moderate but there is room for improvement. I recommend the process is reviewed to ensure such ICPs are identified and disconnected. The audit risk rating is assessed to be low as the number of ICPs affected is likely to be low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will review this process however this is a very rare occurrence, and we believe ensuring we advise the new retailers of the updated connection status may be a better outcome for all parties and ensure we are not in breach of the consumer care guidelines.		01/08/2024	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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

Genesis can only issue a disconnection service order if the ICP is recorded in Gentrack.

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

Genesis has not changed their processes or practices. They do not carry out any of the work described above and they still rely on the MEPs and ATHs to conduct these activities.

If the network advises that a seal has been broken a job is issued to the MEP to reseal. MEPs are required to ensure that only qualified personnel perform work and manage and trace seals. The MEPs do not usually provide details of seals in their job completion paperwork.

I examined the processes for disconnection and reconnection, which often occurs at the meter or the metering point. If a broken seal is identified, then Wells, who are also a test house, will replace and reseal with their own seal. No notification is provided to the MEP. Genesis is reviewing this process. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 2.16 With: Clause 48 (1F) of Schedule 10.7 From: 01-Jan-23 To: 16-Nov-23	MEPs not notified when seals are replaced when actioned by Wells. 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 rated as moderate but there is room for improvement as the process doesn't include notification to the MEP that a seal has been replaced. The audit risk rating is assessed to be low as the number of broken seals replaced is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will review the current process and work with Wells to ensure we are aware when seals are replaced and that we in turn notify the MEP		01/08/2024	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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

Meters are only bridged if they cannot be reconnected without bridging and delaying reconnection would cause significant disadvantage to the customer because they would be without hot water or power.

Reconnection of remotely disconnected meters is initiated by either one of two process paths:

- a remote reconnection request is made to the AMI MEP for an ICP that has been remotely disconnected by Genesis:
 - the AMI MEP provides a managed service in that where the AMI MEP is unable to remotely reconnect then they will initiate a field service technician to attend and bridge the meter,
 - while the AMI MEP is aware at this point that the AMI meter has been bridged, no action is taken to un-bridge the meter until a works order is generated by Genesis,
- for all ICPs that require reconnection as part of a switch gain, a works order is generated for a Wells field service technician to attend the site to undertake the reconnection:
 - the technician will attempt to contact the AMI MEP on site to facilitate an on-demand reconnection and if this attempt to contact the AMI MEP is unsuccessful or the AMI MEP is unable to communicate with the meter, then the meter is bridged, and
 - If Bluecurrent is the MEP, the technicians now have access to Bluecurrent’s Storm system to allow them to remotely reconnect whilst on-site.

Bridged meters are identified through a key word query that scans across all returned service request paperwork looking for words and phrases that indicates a meter has been bridged or bypassed. A summary spreadsheet was provided of 107 bridged meters. This is discussed below.

GENE

Reporting is in place to identify instances where bridging has occurred, and these are cross checked to ensure that an un-bridging job is booked. The AMI MEPs should be notified within one day of the meter being bridged, but analysis of 12 ICPs from the summary spreadsheet showed that seven notifications were not within one business day.

ICP	Bridge date	Work order date	Business days
0001441705UN998	21 August 2023	23 August 2023	2
0005851530RNFF7	28 August 2023	2 October 2023	25
0000169363UN441	8 September 2023	31 October 2023	36
0000052707UNC1A	20 September 2023	22 September 2023	2

1000522032PC0EC	5 October 2023	13 October 2023	6
0000029784UN0C9	16 October 2023	18 October 2023	2
0000020081TR4FC	26 October 2023	1 November 2023	4

The bridged meter report was examined to determine whether the “consumption prorated” field was “Y” for yes. There were nine where the “consumption prorated” field was “N” for no. I checked all nine and found the following:

- there was no consumption for two ICPs, therefore correction was not required,
- five ICPs had switched away within the 10-day period where GENE is waiting for consumption information to support the correction; no correction was applied for the affected bridged period,
- one ICP (0005515629RN3BF) had the old meter history removed due to a processing error and the correction was not made, and
- one ICP did have the correction made.

I checked a further seven ICPs where the report indicated that consumption was “prorated” and found that for one of the seven, the correction was not made, and for a further three of the seven, the reconciliation team had not been advised, therefore the consumption was not apportioned correctly over the bridged period. The expected process is that the reconciliation team are notified of every bridged meter, so they can check to see if any meter readings need to be “invalidated” to ensure the consumption is correctly apportioned. There is no reporting or checks to ensure this task is conducted. I recommend the process is reviewed and redesigned to ensure all bridged meters are notified to the reconciliation team. I also recommend all ICPs on the bridged meter report are checked to ensure the corrections are appropriate.

Description	Recommendation	Audited party comment	Remedial action
Bridged meters	Review and change the process for notification of bridged meters to the reconciliation team to ensure notification is made in every instance.	This process has been changed and a report is now sent to the reconciliations team each month to ensure all bridged meter have been corrected	Cleared
Bridged meters	Check all ICPs on the bridged meter report to ensure corrections have been made and appropriately apportioned.	This process is now in place	Cleared

All examples of bridged meters from the last audit have been processed.

Non-compliance is recorded below and in **sections 2.1, 6.4 and 12.2** where the volume correction was not applied for seven ICPs and where the corrected volume was not apportioned across the bridged period for three ICPs.

GEOL

Reporting is in place to identify instances where bridging has occurred, and these are cross checked to ensure that an un-bridging job is booked. The AMI MEPs should be notified within one day of the meter being bridged, but analysis of nine ICPs from the summary spreadsheet showed that seven were not confirmed as having been sent within one business day.

ICP	Bridge date	Work order date	Business days
0304101303LCA29	14 March 2023	17 March 2023	3
0000310486TU09C	21 April 2023	2 May 2023	6
0000650716TUA3E	27 April 2023	Unknown	Unknown
3315017000CHA3C	7 June 2023	Unknown	Unknown
0005341124RN775	5 May 2023	Unknown	Unknown
0001112760PC506	13 July 2023	31 July 2023	11
0005480981RN233	1 June 2023	9 June 2023	5

The GEOL process for bridging and un-bridging meters is manual, however reporting is now in place to monitor bridging examples.

The bridged meter report was examined to determine whether the “consumption prorated” field was “Y” for yes. There were seven where the “consumption prorated” field was “N” for no. I checked all seven and found the following:

- there was no consumption for two ICPs, therefore correction was not required,
- three ICPs had switched away within the 10-day period where GEOL is waiting for consumption information to support the correction; no correction was applied for the affected bridged period,
- one ICP was not corrected despite there being sufficient consumption to base a correction on, and
- one ICP did have the correction made.

GENH

No bridged meters were identified during the audit period.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 2.17</p> <p>With: Clause 10.33C and 2A of Schedule 15.2</p> <p>From: 12-Jan-23</p> <p>To: 03-Mar-24</p>	<p>GENE</p> <p>Consumption for the bridged period has not been submitted for seven ICPs and has not been correctly apportioned across the bridged period for three ICPs.</p> <p>Notification to MEP not within one business day for seven of 12 ICPs checked.</p> <p>GEOL</p> <p>Consumption for the bridged period has not been submitted for four ICPs.</p> <p>Notification to MEP not within one business day for seven of nine ICPs checked.</p> <p>Potential impact: Medium</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>Low</p>	<p>Controls are rated as moderate overall for bridging. The reporting is now more robust; however, the controls can be strengthened by ensuring all corrections are conducted, even when ICPs switch out, and by having monitoring to ensure the consumption is spread across the bridged period for all ICPs.</p> <p>The number of ICPs affected is small and therefore the impact on settlement is minor therefore the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>A process is now in place to advise the Reconciliation team monthly of all bridged meters that have been corrected. This is so they can reconcile and ensure they have been advised of each one and that the correction has taken place.</p> <p>We have also strengthened the bridged meter reporting to ensure that all ICPs are corrected ASAP.</p> <p>In relation not Frank this process is more manual and relies on the paperwork / report from Wells being worked to identify the bridged meters, this can mean that the MEP is not notified the following day, however our upcoming billing platform / CRM upgrade will resolve this.</p>		<p>01/04/2024</p> <p>TBC</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>As above</p>			

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

Code reference

Clause 11.30

Code related audit information

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

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 11.30A

Code related audit information

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

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

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

Audit observation

The process to ensure that information on Utilities Disputes is provided to customers was checked, and Genesis Energy (GENE and GENH) and Frank Energy (GEOL) websites, terms and conditions, invoices and communications were reviewed.

Audit commentary

Clear and prominent information on Utilities Disputes is provided:

- in the footer of emails and letters,
- on Genesis Energy and Frank Energy invoices,
- on the Genesis Energy and Frank Energy websites,
- in the Genesis Energy and Frank Energy terms and conditions, and
- as a voice recording played for all inbound calls to Genesis Energy and Frank Energy.

Audit outcome

Compliant

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

Code reference

Clause 11.30B

Code related audit information

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

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

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

Audit observation

The process to ensure that information on Powerswitch is provided to customers was checked, and Genesis Energy (GENE and GENH) and Frank Energy (GEOL) websites, terms and conditions, invoices and communications were reviewed.

Audit commentary

Clear and prominent information on Powerswitch is provided:

- in the footer of emails and letters,
- on Genesis Energy and Frank Energy invoices, and
- on the Genesis Energy and Frank Energy websites.

Inclusion of information on Powerswitch on invoices achieves compliance with the requirement for annual notification to residential consumers.

Audit outcome

Compliant

3. MAINTAINING REGISTRY INFORMATION

3.1. Obtaining ICP identifiers (Clause 11.3)

Code reference

Clause 11.3

Code related audit information

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

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

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

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

Audit observation

The new connections process was examined in detail to confirm compliance with the requirement to obtain ICP identifiers for points of connection to local or embedded networks.

Audit commentary

This requirement is well understood and managed by Genesis. There were no examples identified where points of connection did not have ICPs.

Audit outcome

Compliant

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

Code reference

Clause 11.7(2)

Code related audit information

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

Audit observation

The new connection processes were examined in detail to evaluate the strength of controls, and the registry list and audit compliance reports were examined to confirm process compliance. Late updates to “active” for new connections are discussed in **section 3.5**.

Audit commentary

The new connection processes are detailed in **section 2.9** above.

The process in place ensures that the trader required information is populated as required by this clause.

I walked through the registry update process for a sample of 59 new connections including HHR, NHH and unmetered load ICPs. The accuracy and timeliness of registry updates is discussed in **section 3.5**.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 11.1

Code related audit information

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

Audit observation

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

The AC020 reports for each code were reviewed. A sample of late status updates, trader updates and MEP nominations were checked as described in the audit commentary.

Audit commentary

Updates to “active” status

The reconnection process is described in **section 3.8**. Genesis has put in place an exceptions team who are managing disconnected vacant ICPs. Many of the late updates to “active” were because of this activity. The increased focus on timeliness of updates with all the teams has improved performance overall as evidenced by the results below:

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2016	1,155	11.2	66%
GENE	2017	1,443	10.7	61%
GENE	2018	696	9.4	79%
GENE	2019	1,106	8	69%
GENE	2020	2,148	11.6	76.14%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2021	2,629	7.78	73.01%
GENE	2022	1,329	21.32	69.93%
GENE	2023	1,986	10.06	79.04%
GENE	2023	1,824	5.72	81.07%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GEOL	2016	290	11.8	47%
GEOL	2017	475	21	29%
GEOL	2018	648	13.2	52%
GEOL	2019	752	11	38%
GEOL	2020	1,870	13.11	43.98%
GEOL	2021	1,125	8.84	72.39%
GEOL	2022	451	8.74	71.94%
GEOL	2023	1,027	14.24	60.62%
GEOL	2024	408	6.13	81.15%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2016	-	-	-
GENH	2017	-	-	-
GENH	2018	-	-	-
GENH	2019	-	-	-
GENH	2020	1	9	0.00%
GENH	2021	-	-	-
GENH	2022	-	-	-

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2023	-	-	-
GENH	2024	-	-	-

GENE 276 of the 1,824 late reconnections were updated more than 30 business days after the event, 43 were updated more than 100 business days after the event, and only one was updated more than 1,000 business days after the event. The latest update was 2,416 business days after the event date. The 15 latest updates, and the ten latest updates between 30 and 300 business days after the event date were checked and found all were due to the vacant disconnected clean up. ICPs have been returned to “active” from the date consumption was detected. All were updated for the correct “active” date. Four of the 25 late updates were backdated more than 14 months so some consumption will not be submitted to the market. With the continued focus on this activity the long backdates to correct should reduce and therefore volumes will be submitted. The missing consumption for the four ICPs is recorded as non-compliance in **sections 2.1, 3.9 and 12.7**.

GEOL 41 of the 408 late reconnections were updated more than 30 business days after the event, ten were updated more than 100 business days after the event, and one was updated more than 1,000 business days after the event. This was updated 1,064 business days after the event date. A sample of 20 ICPs were checked. This was made up of the ten latest updates, and ten late updates made between 30 and 300 business days after the event date. This found:

- nine ICPs were vacant with consumption and the status change to “active” was backdated to allow the consumption to be reconciled; three were backdated more than 14 months so some consumption will not be submitted to the market but with the continued focus on this activity the long backdates to correct should reduce and therefore volumes will be submitted (the missing consumption for the three ICPs is recorded as non-compliance in **sections 2.1 and 12.7**),
- four were backdated switch withdrawals where the gaining trader had reconnected the property and GEOL updated the status to “active” as soon as the switch withdrawal completed,
- three were backdated switch-ins leading to backdated status changes, and
- three were switch ins where the update to “active” was missed due to missing paperwork.

All were updated for the correct “active” date.

GENH No late reconnections were identified on the AC020 or event detail reports.

Updates to “inactive” status

The timeliness of status updates to “inactive” is set out on the tables below.

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2016	849	6.30	85.42%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2017	493	5.85	87.58%
GENE	2018	373	5.40	87.98%
GENE	2019	696	2.60	91.56%
GENE	2020	959	9.77	95.08%
GENE	2021	793	2.94	97.02%
GENE	2022	962	7.40	93.43%
GENE	2023	637	3.5	97.27%
GENE	2024	905	7.99	96.12

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GEOL	2016	47	9.45	84.33%
GEOL	2017	282	25.54	21.01%
GEOL	2018	148	65.73	37.29%
GEOL	2019	494	2.13	73.08%
GEOL	2020	354	7.92	84.45%
GEOL	2021	166	9.10	91.03%
GEOL	2022	74	3.76	95.47%
GEOL	2023	190	6.94	92.08%
GEOL	2024	207	12.02	88.97%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2016	0	0	100.00%
GENH	2017	4	18.83	33.33%
GENH	2018	2	19.50	0.00%
GENH	2019	4	4.53	76.74%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2020	6	7.36	84.85%
GENH	2021	30	21.06	51.61%
GENH	2022	10	23.30	66.67%
GENH	2023	13	13.61	71.74%
GENH	2024	9	2.66	87.67%

GENE Inactive - new connection in progress status

Updates to 1,12 “inactive - new connection in progress” status are only considered late if they are made after the initial electrical connection date. I checked all 256 updates to status 1,12 recorded as late on the AC020 report and found 125 were updated after the initial electrical connection date. I checked an extreme sample of ten of these and found:

- eight were corrections to the ICP start date; the first 1,12 status update was sent to the registry prior to electrical connection, and
- two ICPs (0000012814EA6CA and 0000016933EA9D1) were not claimed on the registry as these relate to the Electricity Ashburton ICP deconsolidation project and require discussion with the customer before the new ICPs are made “inactive”; there is no impact to reconciliation as the volumes associated with the ICPs will have been reconciled against the original ICP, and this is recorded as non-compliance below.

I checked a further sample of ten ICPs that were backdated between 30-300 days and found:

- five were corrections to the ICP start date; the first 1,12 status update was sent to the registry prior to electrical connection, and
- the remaining five were all backdated new connections which were not claimed until after the ICP was electrically connected; the timeliness of new connections is discussed in **section 3.5**, and this is recorded as non-compliance below.

Other inactive statuses

Following the last audit, Genesis have worked on improving this area by providing better reporting and more resources. The average business days for updates has more than halved and the percentage on time has improved.

The other 649 late updates to “inactive” status were genuinely late. 386 disconnections were updated more than 30 business days after the event, 256 were updated more than 100 business days after the event, and 22 were updated more than 1,000 business days after the event. The latest update was 4,822 business days after the event. I checked the ten latest (or all late) status updates to each disconnection status reason code and found the following issues:

- 20 were identified as part of exceptions teams making corrections,
- 11 were backdated due to late notification either from the contractor, the network or the customer,

- 13 were due to the work order not auto-completing so had to be closed manually and there was a backlog of these at some points during the audit period; these issues are expected to be addressed as part of the system change,
- nine required further investigation before the disconnection could be progressed,
- two were due to switch withdrawals where GENE's status event had to be reapplied as the switch had reversed it off, and
- ICP 0096279100WR4B1 and 0096281200WRF2E were changed to "inactive - vacant" as a result of the last audit but the network has since advised that they should be returned to status "reconciled elsewhere" while they confirm if they are still part of the Powerco Base Power trial; this is discussed further in **section 3.9**.

GEOL Inactive - new connection in progress status

Updates to 1,12 "inactive - new connection in progress" status are only considered late if they are made after the initial electrical connection date. GEOL has not been undertaking new connections since December 2022 but there are a few still being managed by GEOL. I checked all five updates to status 1,12 recorded as late on the AC020 report and identified ICP 0110012552EL004 was not loaded to the registry prior to the ICP becoming "active". This was also a backdated new connection. This is recorded as non-compliance below.

Other inactive statuses

The other 202 late updates to "inactive" status were genuinely late. 79 disconnections were updated more than 30 business days after the event, 63 were updated more than 100 business days after the event, and none were updated more than 1,000 business days after the event. The latest update was 578 business days after the event. I checked the ten latest (or all late) status updates for each disconnection status reason code and found the following issues:

- 29 were identified as part of exceptions teams work making corrections,
- 26 had to be processed manually due to the system not auto completing them as expected; these issues are expected to be addressed as part of the system change, and
- 15 had to be processed manually due to exceptions and there was a backlog of manual close outs.

GENH Inactive new connection in progress status

Updates to 1,12 "inactive - new connection in progress" status are only considered late if they are made after the initial electrical connection date. I checked all four updates to status 1,12 recorded as late on the AC020 report and confirmed that they occurred before initial electrical connection.

Other inactive statuses

The other five late updates to "inactive" status were genuinely eight to 14 business days late. These were all due to internal processing issues.

Trader updates

Genesis runs the trader reporting at least weekly with the aim of running it on a daily basis. One of the trader update processes is to move ICPs between the HHR and RPS profiles to reflect when HHR data has stopped being received or has commenced. These are always retrospective so some trader events will be backdated.

The timeliness of trader updates is set out on the tables below.

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2019	22,017	20.5	17.3%
GENE	2020	55,838	18.01	8.14%
GENE	2021	28,648	14.56	44.53%
GENE	2022	12,088	24.33	28.41%
GENE	2023	7,676	5.55	92.22%
GENE	2024	8,430	4.55	89.89%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GEOL	2019	37	3	85.8%
GEOL	2020	78,004	16.76	1.03%
GEOL	2021	6,687	16.70	39.69%
GEOL	2022	529	39.15	63.99%
GEOL	2023	1,281	5.21	96.29%
GEOL	2024	1,451	4.98	93.94%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2019	32	2	47.5%
GENH	2020	8	14.5	60.0%
GENH	2021	8	16.96	68.0%
GENH	2022	11	8.78	70.27%
GENH	2023	28	701.63	26.32%
GENH	2024	5	85.14	64.29%

GENE 1,137 of the 8,430 late trader updates were updated more than 30 business days after the event, 288 were updated more than 100 business days after the event, and eight were

updated more than 1,000 business days after the event. The latest update was 2,183 business days after the event date.

1,117 (13.3%) of the late updates indicated a profile and/or submission type change, and 4,150 (49.2%) of the late updates indicated an MEP change.

I checked a typical sample of late updates recorded on the AC020 report for GENE as described below:

- ten changes to unmetered load information, including the five latest updates,
- ten changes to submission type information, including the five latest updates,
- ten changes to profile type information, including the five latest updates,
- ten MEP nominations, including the five latest updates, and
- ten ANZSIC code changes, including the five latest updates.

The findings are as follows:

Unmetered updates:

- four were corrections to reflect these are DUMML ICPs,
- four were BTS to permanent connections; there was a backlog in this area hence the removal of the unmetered load was late, and
- two were corrections to the unmetered load value.

Submission type:

- five were corrections to the MEP nominations where the submission type was resent to the registry, and
- five were late due to the backlog of meter changes.

Profile changes

- five were due to no HHR data being received so they were moved back to RPS at the end of the month, and
- five were late due to the backlog of meter changes.

MEP Nominations

- five were due to processing errors where the MEP nomination wasn't sent in the first instance,
- three were due to IHUB meters being installed but MTRX meters were installed,
- one was an NMOM nomination sent to the registry; this is not required but Gentrack's functionality sends an MEP nomination, and
- one was not an MEP nomination but a correction to remove a space in the profile field.

ANZIC codes

- eight were as a result of the BTS to permanent connections, and
- two were backdated switches that were updated as soon as the switch was completed.

GENE recorded that two ANZSIC updates of the 50 updates had an incorrect event date.

The AC020 report recorded 359 ICPs where the ANZSIC code was populated more than 20 business days after switch in or new connection. The updates were made 21 to 939 business days after trading commenced. The ten latest updates were checked, and were updated at the same time as the "active" status record for backdated new connections, or the same time as CS receipt for backdated switches in.

GEOL The percentage of updates on time and business days to update is very similar to that recorded in 2023.

168 of the 1,451 late trader updates were updated more than 30 business days after the event, 46 were updated more than 100 business days after the event, and 14 were updated more than 1,000 business days after the event. The latest update was 3,330 business days after the event date.

215 (14.8%) of the late updates indicated a profile and/or submission type change, and 985 (67.9%) of the late updates indicated an MEP change.

I checked a typical sample of late updates recorded on the AC020 report for GEOL as described below:

- ten changes to unmetered load information,
- ten changes to submission type information, including the five latest updates,
- ten changes to profile type information, including the five latest updates,
- ten MEP nominations, including the five latest updates, and
- ten ANZSIC code changes, including the five latest updates.

The findings are as follows:

Unmetered updates:

- nine were corrections to the daily unmetered load value identified via discrepancy reporting, and
- one was an AZNSIC code update to align with unmetered load value changes.

Submission type:

- five were due to generation being installed so they were reverted to RPS in readiness for injection volumes to be submitted,
- four were due to no HHR data being received so they were moved back to RPS at the end of the month, and
- one was an AZNSIC code update to align with submission type changes.

Profile changes

- six were late due to the backlog of meter changes,
- three were due to data entry corrections, and
- one was a correction to remove a space in the profile field.

MEP Nominations

- four were due to late paperwork being returned,
- five were due to incorrect MEP being nominated in the first instance, and
- one was a correction to remove a space in the profile field.

ANZIC codes

- eight were corrections to the ANZSIC code, and
- two were backdated switches that were updated as soon as the switch was completed.

GEOL recorded that three of the updates had incorrect event dates.

The AC020 report recorded 38 ICPs where the ANZSIC code was populated more than 20 business days after switch in or new connection. The updates were made 21 to 218 business days after trading commenced. The ten latest updates were checked, and were

updated at the same time as the “active” status record for backdated new connections, or the same time as CS receipt for backdated switches in.

GENH There has been a good improvement with a reduction in the number of late updates and the percentage of updates on time from 26.32% to 64.29% and average business days to update from 701.63 to 85.14.

All five late trader updates were updated more than 30 business days after the event and only one was updated more than 1000 business days after the event. It was updated 1,038 business days after the event date.

Two (40%) of the late updates indicated an ANZSIC change, and the remaining three late updates (60%) indicated a MEP nomination.

I checked all five late updates recorded on the AC020 report for GENH and found:

- two were backdated switch ins,
- one was sent in error,
- one was a correction of submission type from HHR to NHH due to a downgrade, and,
- one was a late MEP nomination. .

The AC020 report recorded 21 ICPs where the ANZSIC code was populated more than 20 business days after switch in or new connection. The updates were made 21 to 147 business days after trading commenced. The ten latest updates were checked, and found:

- five were updated backdated switches and were updated at the same time as the CS receipt, and
- the remaining five were updated more than five days after the backdated switch was completed or the “active” update for a backdated new connection.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 3.3 With: Clause 10 of schedule 11.1 From: 01-Jan-23 To: 16-Nov-23	Some status and trader updates were not processed within five business days of the event on the registry. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as moderate as Genesis is managing exceptions more actively but there is still room for improvement with backlogs in the meter change area. The audit risk rating is assessed to be low based on the minor impact on reconciliation.	
Actions taken to resolve the issue	Completion date	Remedial action status

The % of registry updates completed on time has significantly improved. We run the AC020 report monthly and have compliance meeting with all relevant teams to discuss performance, and the root cause for late updates. We will continue to work on improving this.	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
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 new connection, MEP nomination and decommissioning processes were reviewed, and the registry list and audit compliance reports were examined to confirm process compliance.

A sample of MEP nomination rejections and decommissioned ICPs were examined.

Audit commentary

Retailers Responsibility to Nominate and Record MEP in the Registry

There is a weekly list sent from Bluecurrent where they have installed metering, but the nomination has not been received. Validation is in place to check for metering records returned which are different to the proposed MEP. Nomination rejections are identified and remedied.

GENE All “active” metered ICPs have an MEP recorded, and an MEP nomination accepted within 14 business days.

Five of the 21,693 MEP nominations recorded on the event detail report during the audit period were rejected and it was found that all were due to the system automatically nominating the incorrect MEP. This issue was identified and resolved and there have been no further instances since February 2023.

The AC020 report recorded 49 “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ten were timing differences and the ICP had metering details added after the report was run,
- 36 had accepted MEP nominations and were awaiting the update of metering details by the MEP, and
- ICP 0000769007WACB3 has since been decommissioned and the customer billed from the meter removal reads.

I re-checked the three ICPs recorded as having their metering removed in the previous audit and found that two are decommissioned. ICP 0001450409UN0C4 is metered but the metering has not been loaded to the registry by the MEP.

GEOL All “active” metered ICPs have an MEP recorded, and an MEP nomination accepted within 14 business days.

All 2,441 MEP nominations recorded on the event detail report during the audit period were accepted.

All “active” ICPs have an MEP recorded. The AC020 report recorded one “active” ICP with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 0000160513EN3FB was checked and the MEP had updated the metering details prior to the on-site audit.

GENH All “active” metered ICPs have an MEP recorded, and an MEP nomination accepted within 14 business days.

One of the 82 MEP nominations recorded on the event detail report during the audit period was rejected. This was examined and found that this is a new connection in progress and approval is still to be received from the network before the MEP nomination can be sent.

All “active” ICPs have an MEP recorded. The AC020 report recorded two “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 1001142422UN978 was a timing difference and metering details were added after the report was run, and
- ICP 0087020011WE8F5 was decommissioned for the same date as the metering was removed.

ICP Decommissioning

ICPs that are vacant and “active”, or “inactive”, are still maintained in Gentrack.

When an ICP is to be decommissioned, 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 disconnection. Genesis also advises the MEP responsible that a site is to be decommissioned.

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

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

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

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.4 With: Clause 11.18 From: 01-Jan-23 To: 16-Nov-23	GENE Five incorrect MEP nominations. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because they mitigate risk to an acceptable level. The audit risk rating is low as the number of ICPs affected is small in relation to the overall volume.		
Actions taken to resolve the issue		Completion date	Remedial action status
Strong controls are already in place to mitigate this risk, however we will review our current process and looks for ways to improve our compliance further		01/10/2024	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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

The new connection processes were examined in detail to evaluate the strength of controls, and the registry list and audit compliance reports were examined to confirm process compliance.

Audit commentary

New connection information timeliness

The new connection process is described in detail in **section 2.9**. The MEP nomination is expected to be issued at the same time as the ICP is claimed at the “inactive - new connection in progress” status. Genuinely late updates to “inactive - new connection in progress” status are discussed in **section 3.3**.

The timeliness of status updates to “active” (for new connections) is set out on the tables below.

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2016	685	6.2	54%
GENE	2017	911	8.04	51%
GENE	2018	824	7.8	57%
GENE	2019	597	4	84%
GENE	2020	4,032	6.99	65.09%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENE	2021	4,897	6.53	70.2%
GENE	2022	1,549	6.16	84.86%
GENE	2023	4,000	7.78	72.36%
GENE	2024	2,217	5.55	85.07%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GEOL	2016	29	6.8	53%
GEOL	2017	16	7.4	76%
GEOL	2018	16	5.7	82%
GEOL	2019	37	8	59%
GEOL	2020	163	11.56	48.09%
GEOL	2021	410	17.48	5.75%
GEOL	2022	177	12.57	37.46%
GEOL	2023	69	9.47	71.25%
GEOL	2024	10	44.74	47.37%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2016	0	3	100%
GENH	2017	1	1.9	92%
GENH	2018	4	6	43%
GENH	2019	3	9	77%
GENH	2020	21	18.43	40.00%
GENH	2021	41	13.63	35.94%
GENH	2022	18	19.59	47.06%
GENH	2023	19	8.74	62.00%

Code	Year	ICPs notified greater than five days	Average Business Days between Status Event and Status Input Dates	Percentage on time
GENH	2024	8	4.09	88.41%

GENE

The timeliness of new connections has continued to improve. This is due to the team structure change and the increased focus on compliance.

Genesis uses Salesforce to manage the new connection process. Once the customer is confirmed and all the required details have been completed, Salesforce issues a service request. At the same time as the ICP claim, the MEP nomination is expected to be sent to the registry. This is being monitored and managed more closely. Once the service request is returned and all the details are confirmed complete, Salesforce automatically closes the service request and this updates to Gentrack which then writes to the registry. If the service order is unable to be autocompleted an exception is sent to a work queue. These are then reviewed and actioned by the new connection team through to completion. There is monitoring of the AC020 report to identify ICPs where the initial electrical connection date is populated but the status is not yet “active”.

GENE have improved the overall timeliness of new connection updates as detailed in the table above. All the late updates had metering category 1 or 2 or were unmetered. 730 late updates were more than ten business days after the event date, 228 were made more than 30 business days after the event date, and 74 updates were made more than 100 business days after the event date. The latest update was 939 business days after the event date.

I reviewed the nine latest updates, and ten late updates over nine business days, and found:

- nine were due to late notification; in two instances, the ICP was not updated until it was moved from a BTS to permanent supply,
- three were corrections to the start date as a result of exception reporting,
- three were late due to processing errors, actioned as a result of exception reporting, and
- ICP 0007218596RNF89 was made ready for the incorrect date by the network and Genesis updated to the correct “active” date as soon as possible, and
- as detailed in **section 2.10**, ICP 1002167629LC299 switched in from another trader at the “inactive - new connection in progress” status so the first “active” date is the Genesis gain date; this is a non-compliance for the other trader and has been passed to their auditor to be examined as part of their Reconciliation Participant audit.

GEOL

GEOL has not been dealing with new connections since the end of 2022, therefore all reference to new connections relates to historic issues. GEOL does not use Salesforce. The few remaining new connections continue to be managed via email inboxes.

All of the late updates had metering category 1. Seven late updates were more than ten business days after the event date, and three updates were made more than 100 business days after the event date. The latest update was 390 business days after the event date. As these are the last remaining new connections for GEOL they tend to be problematic and therefore late to be updated.

I reviewed all ten late updates and found:

- five were processing issues,
- four were due to late paperwork, and
- as detailed in **section 2.10**, ICP 1002167631LCA20 switched in from another trader at the “inactive - new connection in progress” status so the first “active” date is GEOL’s gain date; this is a non-

compliance for the other trader and has been passed to their auditor to be examined as part of their Reconciliation Participant audit.

GENH

Status updates are manual and are made once there is confirmation from the data collection agent that a load test has been conducted between them and the ATH.

Six late updates were more than ten business days after the event date, and two were made more than 30 business days after the event date. The latest update was 45 business days after the event date.

I checked all eight late HHR new connections and the five and found:

- three were due to not being processed on time,
- two were due to late notification,
- two were made “ready” for the incorrect dates by the network and Genesis updated to the correct “active” dates as soon as possible, and
- one was a correction to the start date due to human error.

New connection information accuracy

The AC020 report is checked regularly to identify ICPs where the initial electrical connection date is populated but the status is not “active”.

GENE

Electrically connected ICPs where the trader has not changed the ICP status to “active”

The AC020 report recorded 205 ICPs which had an initial electrical connection date populated and which remained at “inactive - new connection in progress” or “ready” status. The 20 ICPs with the oldest initial electrical connection dates (2/12/2019 to 29/07/2023) were checked, and found:

- four ICPs are now “active”; ICP 0110013743ELD4B has been made “active” from the permanent connection date of 14 December 2023 and not the date of the BTS electrical connection date of 24 July 2023 and this is being corrected,
- six ICPs are part of network deconsolidation projects; I recommend below that Genesis liaise with the two networks to progress these,
- five where the network had incorrectly populated an initial electrical connection date: three have since been confirmed as no longer required and have been decommissioned - set up in error,
- four are being investigated to confirm if they are electrically connected, and
- ICP 0000054617HB07C has since been decommissioned - set up in error.

Recommendation	Description	Audited party comment	Remedial action
Pending network deconsolidation ICPs	Liaise with the relevant network to progress the six pending new connection ICPs that have been created as part of the network deconsolidation projects.	We will take is recommendation on board and liaise with the relevant networks	Identified

Consistency with initial electrical connection dates and meter certification dates

“Active” dates for new connections were compared to the distributor’s initial electrical connection date, and MEP’s certification date using the AC020 report. The AC020 report identified 1,423 ICPs with date discrepancies. For 144 ICPs the “active” date and initial electrical connection date was consistent and the ICP was unmetered. The other 1,279 exceptions were checked:

Scenario	Total	Sample	Confirmed incorrect	Findings
IECD = active date and MCD ≠ active date	2	2	1	ICP 1099584274CN163 was electrically connected on 15 June 2023 but was recorded as "active" from 19 September 2023. This was corrected during the audit.
IECD ≠ active date and MCD ≠ active date	18	5	4	Three of the four have been corrected. ICP 0007215895RNC61 has switched out but the status event date can still be changed for the period the ICP was with GENE.
IECD ≠ active date and MCD = active date	147	10	-	All ten had the correct "active" event date.
IECD = active date and no MCD	41	5	-	All five had the correct "active" event date.
IECD ≠ active date and no MCD	1	1	-	The metering has since been loaded to the registry and has the correct "active" date recorded.
IECD ≠ active date and unmetered	2	2	2	Both were made "active" for the incorrect date, and both have been corrected.
No IECD and MCD = active date	890	5	-	All five had the correct "active" event date.
No IECD and no MCD	64	4	2	The metering and initial electrical connection dates have since been populated and the active date did not match for: <ul style="list-style-type: none"> • ICP 0000062989NT364 was corrected during the audit, and • ICP 0000062979NT373 was electrically connected on 11/05/2023 not 8/05/2023. This is being corrected.
Total	1,279	34	9	

I rechecked exceptions identified during the previous audit and confirmed all have been corrected.

GEOL

GEOL has not been dealing with new connections since the end of 2022, therefore all reference to new connections relates to historic issues.

Electrically connected ICPs where the trader has not changed the ICP status to "active"

There were no ICPs at "inactive - new connection in progress" or "ready" status with initial electrical connection dates populated.

Consistency with initial electrical connection dates and meter certification dates

"Active" dates for new connections were compared to the distributor's initial electrical connection date, and MEP's certification date using the AC020 report. The AC020 report identified four ICPs with date discrepancies. These were checked and found all were compliant.

I rechecked exceptions identified during the previous audit and found all have been corrected.

GENH

Electrically connected ICPs where the trader has not changed the ICP status to “active”

There were no ICPs at “inactive - new connection in progress” or “ready” status with initial electrical connection dates populated.

Consistency with initial electrical connection dates and meter certification dates

“Active” dates for new connections were compared to the distributor’s initial electrical connection date, and MEP’s certification date using the AC020 report. The AC020 report identified 32 ICPs with date discrepancies.

Scenario	Total	Sample	Confirmed incorrect	Findings
IECD ≠ active date and MCD = active date	4	4	-	The correct “active” dates are recorded.
IECD = active date and no MCD	2	2	1	ICP 0000705018KE047 is being corrected as the meter was certified and consumption commenced on 12 October 2023.
No IECD and MCD ≠ active date	8	4	-	The correct “active” dates are recorded but ICPs 0007215089RN5DF and 0000054448HBDAD were certified late. This is recorded as non-compliance in section 2.11 .
No IECD and MCD = active date	16	4	-	The correct “active” dates are recorded.
No IECD and no MCD	2	2	1	ICP 1002184334LCDF7 is being corrected as the meter was certified and consumption commenced on 6 November 2023.
Total	32	16	2	

I rechecked exceptions identified during the previous audit and confirmed all had been actioned.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.5 With: Clause 9 of schedule 11.1 From: 01-Jan-23 To: 16-Nov-23	<p>GENE</p> <p>2,717 late updates for new connections (85.07% updated within five business days). Nine of a sample of 34 ICPs of a possible 1,279 ICPs had the incorrect first “active” date (18% error rate).</p> <p>GEOL</p> <p>Ten late updates for new connections (47.37% updated within five business days).</p> <p>GENH</p> <p>Eight late updates for new connections (88.41% updated within five business days). One incorrect “active” date from the previous audit not yet resolved.</p> <p>Two of a sample of 16 ICPs of a possible 32 ICPs had the incorrect first “active” date (6% error rate).</p> <p>Potential impact: Medium Actual impact: Low Audit history: Multiple times</p> <p>Controls: Moderate Breach risk rating:2</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are rated as moderate as Genesis have improved their management of exceptions and work flows to improve accuracy and cycle times.</p> <p>The audit risk rating is assessed to be low as this will have a small effect on reconciliation accuracy.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We run the AC020 report monthly and have compliance meeting with all relevant teams to discuss performance and the root cause for late updates. We will continue to work on improving this.</p> <p>A recent realignment has seen The New Connection team reporting line change, they are now part of the Retail Operations team and we are confident that this will help us to further improve compliance</p>		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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 ANZSIC code is checked as part of the sign-up process with Genesis. These are also checked as part of the registry validation processes to look for blank and “T9” coded ICPs.

GENE

The AC020 report recorded:

- no ICPs with blank ANZSIC codes,
- six ICPs with T994 unknown ANZSIC codes; a sample of two ICPs were checked and found these are valid as the ICPs are currently “active vacant” sites with no customer registered,
- 33 ICPs with metering category 2 had residential ANZSIC codes; 25 were confirmed to be residential but eight were incorrect and are being corrected where possible but ICP 0007217918RNC34 has since switched away, and
- no ICPs with metering category three or above had residential ANZSIC codes.

A diverse sample of 100 “active” ICPs were checked to confirm the validity of ANZSIC codes, including ICPs assigned to each of the 20 most frequently used codes. This identified 12 incorrect ANZSIC codes representing an 12% error rate, and these have been updated in the registry. The correct code for ICP 0223094048LC7F5 is still being confirmed.

GEOI

The AC020 report recorded:

- no ICPs with blank ANZSIC codes,
- one ICP with a T994 unknown ANZSIC code, which has now been updated,
- six ICPs with metering category 2 had residential ANZSIC codes; three were confirmed to be residential, two were switched in in error and have since switched away and ICP 0007180918RN324 has been corrected, and
- no ICPs with metering category 3 or above were supplied.

A diverse sample of 80 “active” ICPs were checked to confirm the validity of ANZSIC codes, including ICPs assigned to each of the ten most frequently used codes. This found six ICPs had the incorrect ANZSIC code applied representing a 7.5% error rate and these have since been updated.

GENH

The AC020 report recorded:

- no ICPs with blank or T994 series ANZSIC codes, and
- no ICPs with metering category 2 or above with residential ANZSIC codes.

A diverse sample of 50 “active” ICPs were checked to confirm the validity of ANZSIC codes, including ICPs assigned each of the ten most frequently used codes. This found 11 ICPs had the incorrect ANZSIC

code applied representing a 22% error rate, and these have since been updated. The team now have a better understanding of the use and importance of ANZSIC codes.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.6</p> <p>With: Clause 9(1)(k) of schedule 11.1</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>Eight ICPs of a total of 33 ICPs checked with a category 2 meter and incorrectly recorded as residential.</p> <p>12 ICPs of a sample of 100 ICPs checked with an incorrect ANZSIC code recorded. 12% error rate.</p> <p>GEOL</p> <p>One ICP of a total of six ICPs checked with a category 2 meter and incorrectly recorded as residential.</p> <p>Six ICPs of a sample of 80 ICPs checked with an incorrect ANZSIC code recorded. 7.5% error rate.</p> <p>GENH</p> <p>11 ICPs of a sample of 50 ICPs checked with an incorrect ANZSIC code recorded. 22% error rate.</p> <p>Potential impact: Low</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		
Low	<p>The controls are rated as moderate as the controls will mitigate risk to an acceptable level.</p> <p>The audit risk rating is low as this has no material effect on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
All ICPs identified as being non-compliant in this audit will be reviewed and correction processed if required		01/06/2024	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
We will review the process of working these items through the AC020 report and look to improve these to ensure compliance		01/06/2024	

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 identify ICPs where:

- unmetered load is identified by the distributor, and none is recorded by Genesis,
- unmetered load is identified by Genesis, and none is recorded by the distributor,
- unmetered load is indicated but the unmetered daily kWh is zero or blank, and
- the Genesis unmetered load figure does not match with the distributor's figure (where it is possible to calculate this if the distributor is using the recommended format) and the variance is greater than 0.1 kWh per day (0.1 kWh per day was chosen as a sample only; this does not indicate compliance is achieved if an error is found that is less than 0.1 kWh per day).

Audit commentary

All ICPs with unmetered load recorded in the trader details on the registry are recorded in Gentrack with unmetered load. There is no validation between the distributors unmetered load field and the load recorded by Genesis once the ICP has been gained. Unmetered load submissions are calculated in Derive+ based on the registry daily unmetered kWh.

The completeness and accuracy of unmetered load details was determined by reviewing the audit compliance and registry list reports.

GENE GENE supplies 2,682 "active" ICPs with unmetered load recorded by the distributor. 255 ICPs have shared unmetered load recorded by the distributor, 188 ICPs have DUML recorded by the distributor and the remainder have standard unmetered load recorded.

"Active" ICPs with no metering or unmetered load recorded.

All "active" ICPs have an MEP recorded. The AC020 report recorded 49 "active" ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ten were timing differences and the ICP had metering details added after the report was run,
- 36 had accepted MEP nominations and were awaiting the update of metering details by the MEP, and
- ICP 0000769007WACB3 has since been decommissioned and the customer billed from the meter removal reads.

I re-checked the three ICPs recorded as having their metering removed in the previous audit and found that two have been decommissioned. ICP 0001450409UN0C4 is metered but the metering has not been loaded to the registry by the MEP.

"Active" ICPs with unmetered load recorded by the distributor but not the trader.

The AC020 report recorded nine timing differences where the ICP has been metered and the distributor has since removed the unmetered BTS details.

“Active” ICPs with unmetered load recorded by the trader but not the distributor.

168 “active” ICPs have unmetered load recorded by the trader but not the distributor. 106 were confirmed to have unmetered load connected in previous audits or were DUMML ICPs. I checked a sample of ten ICPs of the remaining 62 ICPs and found:

- five appear to be old BTS supplies and should be decommissioned but require investigation to confirm this,
- two ICPs (0000400343WAE53 and 0007291015WAAF4) have DUMML recorded in the trader’s unmetered load descriptions but are not part of any DUMML audits; both are with Waka Kotahi and are being investigated,
- the streetlight associated with ICP 0030424010PC742 is recorded in the South Taranaki DC DUMML database against ICP 1000543526PCDB6; this ICP should be decommissioned,
- ICP 0900085399PCC82 is unmetered streetlights outside of a school and is not recorded in the Palmerston North CC streetlight database; this needs investigation to confirm the load and details have been passed to Genesis to progress, and
- one is confirmed to be correct.

I recommend below that this area has further focus to confirm that these are valid unmetered load ICPs.

Accuracy of daily unmetered kWh

75 DUMML ICPs had the unmetered flag set to yes and a daily unmetered kWh of ENG and are compliant. Two ICPs have a daily unmetered kWh set to zero. These were checked and found:

- as recorded in the last audit, ICP 0000842905WPDC2 had zero recorded and this is correct based on the distributor and trader unmetered load details, and
- ICP 0006097006RND4F was “active” with GENE from 2 December 2023 to 6 September 2023 with an unmetered load of zero and has been decommissioned since 2013 and has been pending decommission since 1 May 2013; the network requested GENE reverse the pending decommission and make it ready for decommissioning from 7 September 2023 causing the ICP to be recorded as “active” which has caused GENE to be non-compliant for the incorrect status and is recorded as non-compliance in **sections 2.1 and 3.9**.

The AC020 report recorded 27 ICPs where the daily unmetered kWh differed from the recalculation based on the distributor information by more than ± 0.1 kWh. All were examined and found:

- 25 were DUMML ICPs, and are compliant, and
- two (ICP 0000557920UN07D and 0000006083TE8E2) are being investigated to determine the correct load.

Unmetered builder’s temporary supply (BTS) ICPs

234 unmetered BTS ICPs were recorded on the registry list. Nine had metering installed and eight of those had their unmetered BTS load removed from the same day. ICP 0007210041RN704 was corrected prior to the audit.

I checked a 28 unmetered BTS ICPs created prior to 2022:

- eight were present in the last two audits; two have since been decommissioned and the remaining six are still to be investigated, and
- the remaining 20 ICPs are still to be investigated.

The majority of these are on the Orion network. A project is planned to clean up all the long term BTS supplies. Unmetered BTS are no longer being used on the Orion network so there should only be a few unmetered BTS supplies going forward.

GEOL GEOL supplies 186 “active” ICPs with standard unmetered load recorded by the distributor, and 45 “active” ICPs with shared unmetered load recorded by the distributor.

Accuracy of daily unmetered kWh

The AC020 confirmed that all unmetered load values matched the distributor where the load was able to be calculated.

“Active” ICPs with unmetered load recorded by the trader but not the distributor

ICP 0007124770RN8A3 is recorded as having shared unmetered load associated with Hyllton Heights but the distributor has no load details recorded. This was a shared unmetered load associated with ICP 0007214151RN22D. This was decommissioned by Orion on 4 February 2023. This is recorded as non-compliance in **section 5.1**.

“Active” ICPs with no metering or unmetered load recorded.

All “active” ICPs have an MEP recorded. The AC020 report recorded one “active” ICP with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 0000160513EN3FB was checked and the MEP had updated the metering details prior to the on-site audit.

“Active” ICPs with unmetered load recorded by the distributor but not the trader.

No “active” ICPs had distributor unmetered load details with no trader unmetered load.

Accuracy of daily unmetered kWh

All “active” ICPs with the unmetered flag set to yes had a non-zero daily unmetered kWh. There were no ICPs where the trader daily unmetered kWh differed from the recalculation based on the distributor information by more than ± 0.1 kWh.

Unmetered BTS

There are no unmetered BTS ICPs.

GENH GENH supplies two “active” ICPs with standard unmetered load recorded by the distributor.

Accuracy of daily unmetered kWh

The AC020 confirmed that all unmetered load values matched the distributor where the load is able to be calculated.

“Active” ICPs with unmetered load recorded by the trader but not the distributor

There were no ICPs with unmetered load recorded by the trader but not the distributor.

“Active” ICPs with no metering or unmetered load recorded.

All “active” ICPs have an MEP recorded. The AC020 report recorded two “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 1001142422UN978 was a timing difference and metering details were added after the report was run, and
- ICP 0087020011WE8F5 was decommissioned for the same date as the metering was removed.

“Active” ICPs with unmetered load recorded by the distributor but not the trader.

No “active” ICPs had distributor unmetered load details with no trader unmetered load.

“Active” ICPs with unmetered load recorded by the trader but not the distributor.

No “active” ICPs had trader unmetered load details with no distributor unmetered load details.

Accuracy of daily unmetered kWh

All “active” ICPs with the unmetered flag set to yes had a non-zero daily unmetered kWh. There were no ICPs where the trader daily unmetered kWh differed from the recalculation based on the distributor information by more than ± 0.1 kWh.

Unmetered BTS

There are no unmetered BTS ICPs.

Recommendation	Description	Audited party comment	Remedial action
Unmetered load	GENE Investigate the 62 ICPs with unmetered load recorded but where the distributor has none.	We have initiated a review of these 62 ICPs and are working with the customer to ensure all data is correct	Investigating

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.7 With: Clause 9(1)(f) of Schedule 11.1 From: 01-Jan-23 To: 16-Nov-23	GENE ICP 0900085399PCC82 has unmetered load incorrectly recorded. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as moderate overall but there is room for improvement. The impact on settlement is minor, therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status

Our Unmetered Account specialist has been focused on DUML but will be taking over the responsibility for all unmetered load. The above mentioned ICPs will be reviewed, and correction made where required to ensure compliance	01/09/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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 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

The new connection processes were examined in detail as discussed in **sections 2.9** and **3.5**.

The reconnection process was examined using the AC020 and event detail reports.

- The timeliness and accuracy of data for new connections is assessed in **section 3.5**.
- The timeliness of data for reconnections is assessed in **section 3.3**, and a sample of 20 updates were checked for accuracy.

For new connections which had been electrically connected during the audit period, the initial electrical connection date, earliest “active” date, and meter certification date were compared to determine the accuracy of the connection dates.

Audit commentary

New connections

GENE

Electrically connected ICPs where the trader has not changed the ICP status to “active”

The AC020 report recorded 205 ICPs which had an initial electrical connection date populated and which remained at “inactive - new connection in progress” or “ready” status. The 20 ICPs with the oldest initial electrical connection dates (2 December 2019 to 29 July 2023) were checked, and found:

- four ICPs are now “active”; ICP 0110013743ELD4B has been made “active” from the permanent connection date of 14 December 2023 and not the date of the BTS electrical connection date of 24 July 2023 and this is being corrected,

- six ICPs are part of network deconsolidation projects; I recommended in **section 3.5**, that Genesis liaise with the two networks to progress these,
- five where the network had incorrectly populated an initial electrical connection date; three have since been confirmed as no longer required and have been decommissioned-set up in error,
- four are being investigated to confirm if they are electrically connected, and
- ICP 0000054617HB07C has since been decommissioned -set up in error.

Consistency with initial electrical connection dates and meter certification dates

“Active” dates for new connections were compared to the distributor’s initial electrical connection date, and MEP’s certification date using the AC020 report. The AC020 report identified 1,423 ICPs with date discrepancies. For 144 ICPs the “active” date and initial electrical connection date was consistent and the ICP was unmetered. The other 1,279 exceptions were checked:

Scenario	Total	Sample	Confirmed incorrect	Findings
IECD = active date and MCD ≠ active date	2	2	1	ICP 1099584274CN163 was electrically connected on 15 June 2023 but was recorded as “active” from 19 September 2023. This was corrected during the audit.
IECD ≠ active date and MCD ≠ active date	18	5	4	Three of the four have been corrected. ICP 0007215895RNC61 has switched out but the status event date can still be changed for the period the ICP was with GENE.
IECD ≠ active date and MCD = active date	147	10	-	All ten had the correct “active” event date.
IECD = active date and no MCD	41	5		All five had the correct “active” event date.
IECD ≠ active date and no MCD	1	1		The metering has since been loaded to the registry and has the correct “active” date recorded.
IECD ≠ active date and unmetered	2	2	2	Both were made “active” for the incorrect date, and both have been corrected.
No IECD and MCD = active date	890	5		All five had the correct “active” event date.
No IECD and no MCD	64	4	2	The metering and initial electrical connection dates have since been populated and the active date did not match for: <ul style="list-style-type: none"> • ICP 0000062989NT364 was corrected during the audit, and • ICP 0000062979NT373 was electrically connected on 11/05/2023 not 8/05/2023. This is being corrected.
Total	1,279	34	9	

I rechecked exceptions identified during the previous audit and confirmed all have been corrected.

GEOL

Electrically connected ICPs where the trader has not changed the ICP status to “active”

There were no ICPs at “inactive - new connection in progress” or “ready” status with initial electrical connection dates populated.

Consistency with initial electrical connection dates and meter certification dates

“Active” dates for new connections were compared to the distributor’s initial electrical connection date, and MEP’s certification date using the AC020 report. The AC020 report identified four ICPs with date discrepancies. These were checked and found all were compliant.

I rechecked exceptions identified during the previous audit and found all have been corrected.

GENH

Electrically connected ICPs where the trader has not changed the ICP status to “active”

There were no ICPs at “inactive - new connection in progress” or “ready” status with initial electrical connection dates populated.

Consistency with initial electrical connection dates and meter certification dates

“Active” dates for new connections were compared to the distributor’s initial electrical connection date, and MEP’s certification date using the AC020 report. The AC020 report identified 32 ICPs with date discrepancies.

Scenario	Total	Sample	Confirmed incorrect	Findings
IECD ≠ active date and MCD = active date	4	4	-	The correct “active” dates are recorded.
IECD = active date and no MCD	2	2	1	ICP 0000705018KE047 is being corrected as the meter was certified and consumption commenced on 12 October 2023.
No IECD and MCD ≠ active date	8	4	-	The correct “active” dates are recorded but ICPs 0007215089RN5DF and 0000054448HBDAD were certified late. This is recorded as non-compliance in section 2.11 .
No IECD and MCD = active date	16	4	-	The correct “active” dates are recorded.
No IECD and no MCD	2	2	1	ICP 1002184334LCDF7 is being corrected as the meter was certified and consumption commenced on 6 November 2023.
Total	32	16	2	

I rechecked exceptions identified during the previous audit and confirmed all had been actioned.

Reconnections

When calculating historic estimate, Derive+ excludes the shape values for any “inactive” days from both the numerator and divisor of the historic estimate calculation, forcing all consumption into the “active”

days of the read-to-read period. If an entire read-to-read period is "inactive", no consumption will be reported.

GENE

Actual disconnection reads are automatically loaded to Gentrack where they are provided by the contractor, but reconnection reads are not loaded.

The last audit's recommendation is repeated in **section 9.5**, that Genesis looks at ways to improve the capture of disconnection/reconnection reads to improve the accuracy of the inactive consumption monitoring process and enable more timely intervention where inactive consumption occurs.

Bluecurrent carries out the reconnection work for Genesis. The close out process is automated providing all information expected is provided. Any that do not pass the validations are moved to a work queue and reviewed by an operator to determine what further action is required to complete these.

A vacant disconnection process is followed for vacant ICPs, and I confirmed that consumption is submitted for vacant ICPs where Derive+ is able to retrieve a meter read from Gentrack as described in **section 12.2**.

A letter is sent to the occupier on the day after the ICP becomes vacant. If there is no response a second letter is sent advising that the electricity supply will be disconnected within seven days if the customer does not sign up with Genesis or another retailer. A second letter is sent seven business days after the first for residential AMI meters, 14 days after the first for residential non-AMI meters and 20 business days after the first for business meters.

If a vacant disconnection fails or there is a high bill for a vacant ICP, investigation will occur to determine who is responsible for the charges. These are passed to the revenue assurance team to get the customer either to sign up, or the customer switches away. Where the ICP does switch away the CS file will include the move out read as the switch out read/estimate even if a scheduled meter read has been received since the move out. Where the ICP is settled as HHR this does create a mismatch between the consumption submitted as HHR compared to the register reads used in the switch process.

The vacant report/process generates automated emails that are uploaded into the NEXUS work management tool, which creates work queues that tracks the progress of tasks and where the exceptions team updates the status as each exception is worked.

A sample of 25 reconnections were checked and all were confirmed to have the correct status event dates.

GEOL

Actual disconnection reads are automatically loaded to Gentrack where they are provided by the contractor, but reconnection reads are not loaded.

GEOL use the same process as GENE for disconnected vacant and "active vacant" with consumption. A vacant disconnection process is followed for vacant ICPs, and I confirmed that consumption is submitted for vacant ICPs where Derive+ is able to retrieve a meter read from Gentrack as described in **section 12.2**.

A letter is sent to the occupier on the day after the ICP becomes vacant. If there is no response a second letter is sent advising that the electricity supply will be disconnected within seven days if the customer does not sign up with Genesis or another retailer. A second letter is sent seven business days after the first for residential AMI meters, 14 days after the first for residential non-AMI meters and 20 business days after the first for business meters.

If a vacant disconnection fails or there is a high bill for a vacant ICP, investigation will occur to determine who is responsible for the charges. These are passed to the one revenue assurance analyst to get the customer either to sign up, or the customer switches away. Where the ICP does switch away the CS file will include the move out read as the switch out read/estimate even if a scheduled meter read has been received since the move out. Where the ICP is settled as HHR this does create a mismatch between the consumption submitted as HHR compared to the register reads used in the switch process.

The vacant report/process generates automated emails that are uploaded into the NEXUS work management tool, which creates work queues that tracks the progress of tasks and where the exceptions team updates the status as each exception is worked.

A sample of 20 reconnections were checked and found to be processed accurately at the time.

GENH

Reconnections are managed by the HHR team. These are updated directly onto the registry via the registry interface. None have occurred during the audit period.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 3.8</p> <p>With: Clause 17 of schedule 11.1</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>Nine of a sample of 34 ICPs of a possible 1,279 ICPs had the incorrect first “active” date (18% error rate).</p> <p>GENH</p> <p>Two of a sample of 16 ICPs of a possible 32 ICPs had the incorrect first “active” date (6% error rate).</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>Low</p>	<p>The controls are rated as moderate as Genesis have improved their management of exceptions and workflows to improve accuracy and cycle times.</p> <p>The audit risk rating is low when considering the number of potential ICPs with incorrect “active” dates.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>There has been a significant improvement in this space since the last audit and we will continue to work on further improving our compliance.</p> <p>A recent realignment has seen The New Connection team reporting line change, they are now part of the Retail Operations team, and we are confident that this will help us to further improve compliance</p>		<p>Ongoing</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>As Above</p>			

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.

The registry list file was examined to identify any ICPs that had been at the “inactive - new connection in progress” status for more than 24 months.

Audit commentary

Management of inactive status

GENE The process for disconnections is the same as for reconnections and is automated where possible.

61 status updates to “inactive” were checked and all were found to be accurate with the exception of two ICPs as detailed:

- ICP 0001453656UNFF5 recorded as disconnected remotely but was disconnected in the field by Wells, and
- ICP 1000612416PCD2A was recorded as “electrically disconnected at meter box switch” but was a “new connection in progress.”

Both were due to human error.

The last two audits have recorded that ICPs 0096279100WR4B1 and 0096281200WRF2E were found to have an incorrect status reason of “reconciled elsewhere” but should be recorded as “inactive - vacant” as these are part of the Powerco Base Power trial, and they are not currently consuming and there is no volume being reconciled elsewhere. Genesis changed them but were requested by the network to return them to “reconciled elsewhere” whilst they investigate if they are still on trial. This is recorded as non-compliance below.

The AC020 report recorded 599 ICPs with status reason indicating they were remotely disconnected by AMI metering, but the AMI flag was set to no. A sample of 414 of these ICPs were checked including all moved to status 1,7 during the audit period. I found they had the AMI flag set to yes at the time of disconnection.

As detailed in **section 3.7**, ICP 0006097006RND4F was “active” with GENE from 2 December 2023 to 6 September 2023 with an unmetered load of zero. This ICP has been decommissioned since 2013 and had been pending decommission since 1 May 2013. The network requested GENE reverse the pending decommission and make it “ready for decommissioning” from 7 September 2023 causing the ICP to be recorded as “active”. This has caused GENE to be non-compliant for the incorrect status. This is recorded as non-compliance in **sections 2.1** and **3.9**.

GEOL The process for disconnections is the same as for reconnections and is automated where possible for GEOL.

70 status updates to “inactive” were checked and all were found to be accurate.

The AC020 report recorded 76 ICPs with status reason indicating they were remotely disconnected by AMI metering, but the AMI flag was set to no. A sample of 46 of these ICPs were checked including all moved to status 1,7 during the audit period. I found they had the AMI flag set to yes at the time of disconnection.

GENH GENH will update the status to “inactive” once confirmation has been received from the field. They then update the registry via the registry interface.

Five status updates to “inactive” were checked and found to be accurate.

The AC020 report recorded no ICPs with status reason indicating they were remotely disconnected by AMI metering, but the AMI flag was set to no.

Inactive - new connection in progress

The reconciliation team produce a report for all ICPs that have been at this status. This report is now being worked on a weekly basis. The process is under review to improve how these are managed.

GENE 223 ICPs have been at “inactive - new connection in progress” status for more than 24 months. A sample of the 15 oldest ICPs were checked. Two have since been decommissioned by the network. The remaining 13 ICPs are cancelled new connections but the distributor has not been advised and the claim has not been reversed on the registry to return the ICP to the “ready” status.

GEOL GEOL has not been undertaking new connections since the end of 2022. There are 18 ICPs that have been at “inactive - new connection in progress” status for more than 24 months. These are not being managed and I recommend below that all are reviewed to confirm if they are still required. Specifically, four of these are part of the Counties Power network deconsolidation project. I recommend investigation with the network to progress these.

GENH No ICPs have been at “inactive - new connection in progress” status for more than 24 months.

Recommendation	Description	Audited party comment	Remedial action
ICPs pending new connection for more than 24 months	<p>GEOL</p> <p>Review all pending new connections to confirm if they are still required. Specifically, the four of these are part of the Counties Power network deconsolidation project. I recommend investigation with the network to progress these.</p>	<p>A report is in place for pending New Connections, we will review how this is currently worked and if improvements can be made. We will also investigate the 4 Counties Power ICPs</p>	<p>Investigating</p>

Monitoring of consumption on ICPs with inactive status

Review of historic estimate examples found that where part of a read-to-read period was inactive, the SASV inactive days were excluded from both the numerator and denominator when calculating the historic estimate, forcing all consumption to be reported within the “active” portion of the read-to-read period. Where an entire read-to-read period has inactive status, the numerator and denominator will be zero and no historic estimate will be reported. The status must be returned to “active” to allow consumption during inactive periods to be correctly reported.

At the time of the audit there were 5,394 ICPs identified where consumption identified is greater than 1 kWh with a volume of inactive consumption of over 764,566 kWh. These are being worked through with the higher volume records being investigated first.

During the audit I checked 20 ICPs and found they were all appropriately resolved.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 3.9 With: Clause 19 of schedule 11.1 From: 01-Feb-23 To: 31-Jan-24	<p>GENE</p> <p>Two incorrect “inactive” reason statuses.</p> <p>13 of 15 of the oldest ICPs sampled had the incorrect status of “inactive- new connection in progress”.</p> <p>Incorrect “inactive” status date applied for ICP 0006097006RND4F.</p> <p>Potential impact: Medium</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are rated as strong because they mitigate risk to an acceptable level. The impact on settlement is minor, therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will review how the AC020 report is worked and look to put a process in place for ICPs recorded and disconnected remotely that were not communicating smart meters at the time of disconnection.		01/09/2024	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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

Code reference

Clause 15 Schedule 11.1

Code related audit information

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

Audit observation

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

I analysed registry lists of ICPs with "new" or "ready" status and Genesis as the proposed trader, and reviewed processes to monitor new connections.

Audit commentary

The new connection process is described in **section 2.9**.

GENE GENE is reviewing all ICPs that have been at these statuses for more than 24 months. Three attempts are made to contact the applicant to confirm if the new connection is required. If there is no response, then the distributor is advised that the ICP is no longer required.

The registry list recorded 21 ICPs at "new" status and 326 ICPs at "ready" status. Eight ICPs have been at "new" status for more than 24 months and 66 ICPs has been at "ready" status for more than 24 months. I checked all "new" ICPs over 24 months and the ten oldest at "ready" and found:

- GENE have advised the distributor that these are no longer required,
- five are still being investigated,
- three are now "active",
- two have been confirmed as still required, and
- no application has ever been received for ICP 0006141000WAB4A.

GEOL The registry list recorded no ICPs at "new" status or at "ready" status.

GENH The registry list had no ICPs at "new" status or at "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 Genesis deem all conditions to be met. An extreme case 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

The Genesis 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.

The transfer switch type is applied where a customer is transferring between retailers at an address. This information is collected as part of the customer application process.

GENE

Review of the event detail report found 15,067 transfer switch NTs where metering details were available on the registry list and/or meter installation details report. None of the ICPs had a metering category of three or above.

I checked the ten most backdated NTs and found they were sent within two business days of pre-conditions being cleared but in three cases the incorrect switch type was selected. This is recorded as non-compliance below.

GEOL

Review of the event detail report found 9,769 transfer switch NTs where metering details were available on the registry list and/or meter installation details report. None of the ICPs had a metering category of three or above.

I checked the ten most backdated NTs and found they were sent within two business days of pre-conditions being cleared but in one case the incorrect switch type was selected. This is recorded as non-compliance below.

GENH

Review of the event detail report found no transfer switch NTs for GENH.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.1</p> <p>With: Clause 2 of schedule 11.3</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>Three backdated switches of a sample of ten switches examined were sent incorrectly as transfer switches.</p> <p>GEOL</p> <p>One backdated switch of a sample of ten switches examined sent incorrectly as a transfer switch.</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		
Low	<p>The controls are recorded as moderate as they will mitigate most of the time but there is room for improvement.</p> <p>The audit risk rating is low as this has no direct impact on reconciliation or the customer.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
We will also provide some refresher training to our Switching team regarding compliance and the importance of ensuring the correct switch type is used		01/07/2024	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The Switching processes will be reviewed as part of our upcoming billing platform / CRM change		TBC	

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

Code reference

Clauses 3 and 4 Schedule 11.3

Code related audit information

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

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

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

Audit observation

The event detail reports were reviewed to:

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

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

Audit commentary

The AN file is automatically generated for GENE and GEOL. The AN code assigned is determined by hierarchy. AA is not used in the automated hierarchy. GTV will stop an AN file being sent if it detects a potential error. These are pushed to a manual queue to be reviewed by a person before they are released.

Switching is manually carried out directly in the registry for GENH.

GENE

I checked the validity of AN response codes, by comparing them to the latest ICP information on the registry list report.

Response code	Quantity of ANs	Confirmed correct	Confirmed incorrect	Findings
AA (acknowledge and accept)	92	66	5	28 ICPs had the AMI flag set to yes. I checked a sample of five and they all should have the AD code. AA was entered manually.
AD (advanced metering)	2,336	2,287	0	49 ICPs had the AMI flag set to no. I checked a sample of five and they were all correct.
PD (premises electrically disconnected)	14	11	3	Three ICPs were not disconnected.
Total	2,444	2,436	8	

The event detail report was reviewed for all 2,444 transfer ANs to assess compliance with the setting of event dates requirements:

- 2,440 (99.8%) had a proposed event date within five business days of the NT receipt date, and
- all had a proposed event date within ten business days of the NT receipt date.

The switch breach history report did not record any AN breaches for transfer switches.

GEOL

I checked the validity of AN response codes, by comparing them to the latest ICP information on the registry list report.

Response code	Quantity of ANs	Confirmed correct	Confirmed incorrect	Findings
AA (acknowledge and accept)	234	188	5	46 ICPs had the AMI flag set to yes. I checked a sample of five and they all should have the AD code. AA was entered manually.
AD (advanced metering)	5,513	5,317	-	200 ICPs had the AMI flag set to no. I checked a sample of five and they were all correct.
MU (unmetered supply)	2	2		Compliant
PD (premises electrically disconnected)	38	29	2	Nine ICPs had an "active" status recorded in the LIS file. I checked a sample of five and three were disconnected at the time of the switch but two were "active" and should not have been sent with PD code.
Total	5,787	5,336	7	

The event detail report was reviewed for all 5,787 transfer ANs to assess compliance with the setting of event dates requirements:

- 5,775 (99.79%) had a proposed event date within five business days of the NT receipt date, and
- all had a proposed event date within ten business days of the NT receipt date.

The switch breach history report did not record any AN breaches for transfer switches.

GENH

Eight ANs were issued for transfer switches by GENH. I checked the validity of AN response codes, by comparing them to the latest ICP information on the registry list report and found:

Response code	Quantity of ANs	Confirmed correct	Confirmed incorrect	Findings
AA (acknowledge and accept)	8	7	1	ICP 0181850958LCF1C had the AMI flag set to yes

The switch breach history report did not record any AN breaches for transfer switches.

Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.2</p> <p>With: Clause 3 of schedule 11.3</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>All five "AA" AN files sampled of a possible 28 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>Three "PD" AN files sent with the incorrect code.</p> <p>GEOL</p> <p>All five "AA" AN files sampled of a possible 46 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>Two of five "PD" AN files sampled of a possible nine ICPs sent with the incorrect code. "</p> <p>GENH</p> <p>One "AA" AN file of eight ICPs sent with the incorrect code. "AD" should have been used.</p> <p>Potential impact: Low</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	
Low	<p>The controls are rated as moderate as noted in section 4.8, the AN hierarchy needs review and will be reviewed as part of the new system.</p> <p>The audit risk rating is low as this has no direct impact on reconciliation.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
We will provide some refresher training to our Switching team regarding compliance and the importance of ensuring the information provided to the gaining retailer is correct.	01/07/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
The Switching processes will be reviewed as part of our upcoming billing platform / CRM change	TBC	

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 Genesis during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of records per trader code. 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 an average daily kWh that was negative, zero, or over 200 kWh were identified. A sample of these CS files were checked to determine whether the average daily consumption was correct.

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 files are automatically generated from Gentrack for GENE and GEOL. All examples of late files were due to files being created manually where intervention was required.

The registry functional specification requires estimated daily kWh to be based on the average daily consumption for the last read-to-read period. Genesis calculates the average daily consumption from the last billed actual to the switch read when switch read is an actual, and from the last billed actual to actual when the switch read is an estimate. This is not based on the average daily consumption from the two most recent reads. The Genesis process is likely to produce a more accurate indication of the average daily consumption especially where the read-to-read period may be for a day, but as it does not meet the code's requirements the current methodology is recorded as non-compliant.

Switching is manually carried out directly in the registry for GENH.

GENE

Analysis of the estimated daily kWh on the event detail report identified:

Count of transfer CS files	Estimated daily kWh	Findings
Negative	-	Compliant.
Zero	29	I sampled five ICPs and found that zero was incorrect for three cases. These were due to human error.
More than 200 kWh	4	The daily kWh figure is correct

I checked the 641 transfer switch CS files for inconsistencies between last actual read dates and switch event read types, and checked a sample of exceptions:

- 55 CS files had estimated switch event reads where the last actual read date was on the last day of responsibility; I checked a sample of five and found that the last read date is defaulting to the day before the event date, which is a known system issue, and
- five CS files had a last actual read date after the effective switch date; I found these were all due to human error.

The accuracy of the content of CS files was confirmed by checking a further five transfer CS files. These files were all correct.

The switch breach history report recorded one E2 breach and this was not genuine as the switch was completed within three business days of the switch withdrawal being resolved.

The switch breach history report did not record any CS breaches for GENE.

GEOL

Analysis of the estimated daily kWh on the event detail report identified:

Count of transfer CS files	Estimated daily kWh	Findings
Negative	-	-
Zero	170	I sampled five ICPs and found that zero was incorrect for three cases. These were due to human error.
More than 200 kWh	8	I sampled the three ICPs with the largest average daily consumption and one was incorrect due to the average being calculated from the last two billed reads which were estimates. .

I checked the 5,421 transfer switch CS files for inconsistencies between last actual read dates and switch event read types, and checked a sample of exceptions:

- 726 CS files had estimated switch event reads where the last actual read date was on the last day of responsibility; I checked a sample of five and found that the last read date is defaulting to the day before the event date, which is a known system issue,
- nine CS files had a last actual read date on the effective switch date, I checked a sample of five and found that these were all due to human error, and
- five CS files had a last actual read date after the effective switch date; I found these were all due to human error.

The accuracy of the content of CS files was confirmed by checking a further three transfer CS files. These files were all correct with the exception of ICP 0003344826CNC04 which was sent with estimated switch event reads where the last actual read date was on the last day of responsibility. This is a known system issue that is expected to be fixed with the new system.

The switch breach history report did not record any CS breaches for transfer switches.

GENH

Six transfer CS files were issued during the audit period. I checked the CS file content, and none had any readings, and all were sent as estimates with same read and CS event date as these are submitted using C&I HHR data so no reads are expected by the gaining trader.

The switch breach history report recorded one CS breach for a switch from GENH to GENE. This is due to the NT being sent more than five days in advance of the event date. This is a technical non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.3 With: Clause 5 of schedule 11.3</p> <p>From: 01-Jan-23 To: 16-Nov-23</p>	<p>The average daily consumption calculation is not calculated from the last read period.</p> <p>GENE</p> <p>Three of a sample of five of a possible 29 ICPs were sent incorrectly with an average daily consumption of zero.</p> <p>All five ICPs checked of a possible 55 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>Five CS files were sent with a last actual read date after GENE’s period of supply.</p> <p>GEOL</p> <p>Three of a sample of five of a possible 170 were sent incorrectly with an average daily consumption of zero.</p> <p>One of a sample of two ICPs of a possible eight with an average daily kWh consumption of more than 200 kWh was incorrect.</p> <p>All five ICPs checked of a possible 726 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>All five ICPs checked of a possible nine were sent with a last actual read date on the effective switch date.</p> <p>Five CS files had a last actual read date after GEOL’s period of supply.</p> <p>One of the five ICPs sampled for CS content sent with an estimated switch event read where the last actual read date was on the last day of responsibility.</p> <p>GENH</p> <p>One CS breach</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Weak</p> <p>Breach risk rating: 3</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are recorded as weak as the logic error in Gentrack is sending inaccurate information to gaining traders.</p> <p>The audit risk rating is low as the CS read information is correct so there is no impact on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>This process will be reviewed and corrected as part of our upcoming billing platform / CRM change</p>		<p>TBC</p>	<p>Investigating</p>
Preventative actions taken to ensure no further issues will occur		Completion date	

As above	TBC	
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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 registry manager giving the gaining trader written notice of having received information about the switch completion, provide to the losing trader a changed switch event meter reading supported by 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 reports were analysed to identify all read change requests and acknowledgements during the audit period. A sample of RR and AC files issued for transfer switches were checked to confirm that the content was correct, and that Gentrack and Derive+ reflected the outcome of the RR process.

I also checked for CS files with estimated readings provided by other traders where no RR was issued, to determine whether the correct readings were recorded in Gentrack and Derive+.

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

Audit commentary

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required.

RR

GENE GENE issued 74 RR files for transfer switches. 59 were accepted and 15 were rejected. A sample of ten RRs were checked, including five accepted and five rejected files. There was a genuine reason for GENE's RRs. ICP 0016100072EL210's reads were not supported by two actual reads. This is recorded as non-compliance below.

My checks found:

One ICP where the expected read was not applied in Gentrack:

ICP	Event date	Expected read	Gentrack read	Difference	Comments
1000555954PC943	17 May 2023	10,127	10,139	-12	The read is correct in Derive+

Four ICPs with different reads in Gentrack vs Derive+. The table below shows the differences, where the Gentrack reads are correct and the Derive+ reads are incorrect.

ICP	Event date	Gentrack read	Derive+ read	Difference
0000260161WE296	29 June 2023	27,011	27,144	-430
0016100072EL210	27 March 2023	9,268	9,186	82
	27 March 2023	11,751	11,670	81
0163338132LC4F2	20 May 2023	54,062	54,158	-96
0000084687TR31D	27 July 2023	74	215	-141
Total				-504

Discussion during the site visit identified that RR reads weren't always flowing through to Derive+. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly. This is recorded as non-compliance below and in **sections 2.1 and 12.7**.

The last audit's recommendation to run a query to compare all Gentrack start reads to Derive+ start reads for the previous 14 month period, because there were a high number of discrepancies found in the random samples, was not adopted; therefore, any discrepancies now outside the 14-month revision period will not be corrected. This is recorded as non-compliance in **section 2.1**.

The switch breach history recorded eight RR breaches which were 132-295 days overdue. I checked a sample of three ICPs and found:

- one took more than four months to gain actual reads,
- one was late due to resourcing constraints, and
- one was late due to the time taken to engage the customer.

GEOL GEOL issued 13 RR files for transfer switches. 12 were accepted and one was rejected. A sample of six RRs were checked, including three accepted and the one rejected file. There was a genuine reason for GEOL's RRs, and they were supported by at least two validated readings.

My checks found one ICPs with different reads in Gentrack vs Derive+. The table below shows the difference:

ICP	Event date	Gentrack read	Derive+ read	Difference
0071220649WAA65	23 May 2023	19,570	19,828	-258

As detailed above, discussion during the site visit identified that RR reads weren't always flowing through to Derive+. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly. This is recorded as non-compliance below and in **sections 2.1 and 12.7**.

No late RR files were recorded in the switch breach history report.

GENH No RR files were recorded on the event detail report, and the switch breach history report did not record any RR breaches.

AC

GENE GENE issued three AC files for transfer switches. One was accepted, and two were rejected. All were correct and the one rejected was accepted on a subsequent corrected RR file.

The switch breach history report did not record any late AC files.

GEOL GEOL issued 39 AC files for transfer switches. 28 were accepted, and 11 were rejected. A sample of ten ACs were checked, including five accepted and five rejected files. All were correct and the sample of five rejected RR requests checked were rejected for valid reasons and Gentrack reflected the correct outcome of the RR process.

The switch breach history report did not record any late AC files.

GENH No AC files were recorded on the event detail report, and the switch breach history report did not record any AC breaches.

CS files with estimated reads where no RR is issued

GENE Review of five transfer CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Gentrack and Derive+.

GEOL Review of five transfer CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Gentrack and Derive+.

GENH There were no transfer CS files with estimated reads where no RR was issued.

Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.4 With: Clause 6(1) and 6A Schedule 11.3</p> <p>From: 01-Jan-23 To: 16-Nov-23</p>	<p>GENE</p> <p>One RR read request not supported by two actual reads. Eight RR breaches.</p> <p>One RR read was not recorded correctly in Gentrack. Four incorrect start reads in Derive+ out of a sample of ten of a possible 67 ICPs checked where RR files have been processed in Gentrack.</p> <p>GEOL</p> <p>One incorrect start read in Derive+ out of a sample of four checked of a possible 13 ICPs where RR files have been processed in Gentrack resulting in an over submission of 258 kWh.</p> <p>Potential impact: Medium Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2</p>	
Audit risk rating	Rationale for audit risk rating	
Low	<p>The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement.</p> <p>The audit risk rating is assessed to be minor as there are only 87 ICPs potentially affected, and these are being reviewed and will be corrected if required.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
The issue regarding RRs not flowing through to Derive + has now been investigated and corrected.	01/04/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
The Switching processes will be reviewed as part of our upcoming billing platform / CRM change	TBC	

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 process for the management of read requests was examined. The event detail report was analysed to identify read change requests issued and received under clause 6(2) and (3) schedule 11.3 and determine compliance.

Audit commentary

These RR requests are processed in the same way as those received for greater than 200 kWh. Each request is evaluated and validated against the ICP information. If the request is within validation requirements these are accepted.

GENE

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

I identified one transfer switch RR (ICP 0000526671NRE92) where the gaining trader had recorded a HHR profile in their NT file and issued the NT within five business days of switch completion which was rejected by GENE. This was rejected correctly as GENE traded the ICP with a HHR profile and sent actual reads in the CS file.

GEOL

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

I identified one transfer switch RR (ICP 0006869009RN4BC) where the gaining trader had recorded a HHR profile in their NT file and issued the NT within five business days of switch completion which was rejected by GEOL. This was rejected correctly by GEOL as the RR reads were estimates and not actuals as required by this clause.

GENH

GENH 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 asked Genesis whether any disputes have needed to be resolved in accordance with this clause.

Audit commentary

Genesis confirms that no disputes have needed to be resolved in accordance with this clause. Genesis understands the requirements of 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 Genesis deem all conditions to be met. An extreme case 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

The Genesis 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.

Switch move is applied where a new customer is moving into an address. This information is collected as part of the customer application process.

GENE

Review of the event detail report found 30,386 switch move NTs where metering details were available on the registry list and/or meter installation details report. None of the ICPs had a metering category of three or above.

I checked the ten most backdated NTs and found all were sent within two business days of pre-conditions being cleared, and the correct switch type was selected.

As detailed in **section 4.8**, ICP 0001400490PC060 was metered but due to timing at the time of the switch the metering hadn't been loaded. It was switching between brands and should have been requested as a transfer switch and not a switch move.

GEOL

Review of the event detail report found 13,428 switch move NTs where metering details were available on the registry list and/or meter installation details report. None of the ICPs had a metering category of three or above.

I checked the ten most backdated NTs and found they were sent within two business days of pre-conditions being cleared, and the correct switch type was selected.

GENH

Review of the event detail report found 299 switch move NTs where metering details were available on the registry list and/or meter installation details report. None of the ICPs had a metering category of three or above.

I checked the five most backdated NTs and found they were not sent within the required two business days of pre-conditions being cleared. Both NTs were for ICP 0000019708WEBFO on different dates (the first being withdrawn). The site switched from GENE as it was being upgraded to C&I HHR, so this was a transfer from GENE to GENH and not a switch move, therefore the incorrect switch type was selected.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.7</p> <p>With: Clause 9 Schedule 11.3</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>One of a sample of five NTs should have been requested as a transfer switch.</p> <p>GENH</p> <p>Two of a sample of five NTs not sent within two days of pre-conditions being met.</p> <p>One of a sample of five NTs should have been requested as a transfer switch.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are recorded as moderate because they mitigate risk most of the time.</p> <p>The audit risk rating is assessed to be low as the switch was internal between GENE and GENH.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We will also provide some refresher training to our Switching team regarding compliance and the importance of ensuring the correct switching information is used.</p>		<p>01/07/2024</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	

The Switching processes will be reviewed as part of our upcoming billing platform / CRM change	TBC	
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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:
 - o confirmation of the switch event date; and
 - o a valid switch response code; and
 - o final information as required under clause 11; or
- 10(1)(b) If the losing trader does not accept the event date proposed by the gaining trader, the losing trader must acknowledge the switch request to the registry manager and determine a different event date that—
 - o is not earlier than the gaining trader’s proposed event date, and
 - o is no later than 10 business days after the date the losing trader receives notice, or
- 10(1)(c) request that the switch be withdrawn in accordance with clause 17.

Audit observation

The event detail reports were reviewed to:

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

The process to manage the sending of the CS file within five business days was examined.

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

Audit commentary

The AN file is automatically generated for GENE and GEOL. The AN code assigned is determined by hierarchy. AA is not used in the automated hierarchy. GTV will stop an AN file being sent if it detects a potential error. These are pushed to a manual queue to be reviewed by a person before they are released.

Switching is manually carried out directly in the registry for GENH.

GENE

I checked the validity of AN response codes, by comparing them to the latest ICP information on the registry list report.

Response code	Quantity of ANs	Confirmed correct	Confirmed incorrect	Findings
AA (acknowledge and accept)	22	9	5	13 ICPs had the AMI flag set to yes and/or had "inactive" status. I checked a sample of five and they should all have been AD not AA.
AD (advanced metering)	100	91	1	Nine ICPs had the AMI flag set to N when checked on the LIS file. I checked a sample of five and four were correct. ICP 0000009452UN6CA was disconnected at the time of the switch but the switch response hierarchy sent an AD ahead of PD. This is expected to be addressed as part of the system change.
MU (unmetered supply)	15	-	7	I checked a sample of seven and found all had no metering present as they switched as the "inactive - new connection in progress" status. ICPs should not switch at this status. If the proposed trader is changing, then the ICP should be returned to "ready" and the distributor should update the proposed trader. If the ICP has been electrically connected, then any consumption during GENE's period of supply will not be submitted. I recommend below that any ICPs switching at this status are treated as exceptions and investigated.
OC (occupied premises)	2,093	1,988	1	105 ICPs were either inactive or disconnected. I checked a sample of five and they showed four were correct. ICP0000050800TR747 should have been sent with the AD code.
PD (premises electrically disconnected)	92	51	0	31 ICPs were "active" in the LIS file. I checked a sample of five and confirmed that all were disconnected at the time of the switch, and these were due to timing differences.
Total	2,023	2,139	14	

Recommendation	Description	Audited party comment	Remedial action
Switch requests for ICPs at "inactive - new connection in progress"	Any switches requested at this status should be treated as exceptions and investigated.	We will look to implement this rule as part of the upcoming billing platform change. In the meantime, we will investigate the possibility of creating a regular control report to manage this issue.	Investigating

The event detail report was reviewed for all 2,312 switch move ANs to assess compliance with the setting of event dates requirements.

- 2,309 (99.87%) had proposed event dates within ten business days of the NT receipt date. Three ANs had proposed event dates more than ten business days after the NT receipt date and were subsequently withdrawn. All used the proposed gain date sent by the gaining trader.

The switch breach history report recorded the following breaches:

Breach type	Quantity reported	Finding
ET	9	Five were genuine. All five were incorrectly manually processed.
E2	1	ICP 0000025162WEA3B was manually processed with an incorrect date.

GEOL

I checked the validity of AN response codes, by comparing them to the latest ICP information on the registry list report.

Response code	Quantity of ANs	Confirmed correct	Confirmed incorrect	Findings
AA (acknowledge and accept)	422	295	5	46 ICPs had the AMI flag set to yes and/or had "inactive" status. I checked a sample of five and they all had the incorrect code of AA rather than AD.
AD (advanced metering)	4,212	4,121	-	91 ICPs had the AMI flag set to N when checked on the LIS file. I checked a sample of five and all were correct.
MU (unmetered supply)	2	-	2	ICP 0314488030LCECF was disconnected and should have been sent with a PD code. ICP 0001400490PC060 was metered but due to timing at the time of the switch the metering hadn't been loaded. It was switching between brands and should have been withdrawn as wrong switch. This is recorded as non-compliance in section 4.7 for GENE.
OC (occupied premises)	6,730	6,514	5	216 ICPs were disconnected. I checked a sample of five and they all had the incorrect code of OC rather than PD. This is due to the AN code hierarchy and is a known issue expected to be fixed with the new system.
PD (premises electrically disconnected)	1,132	975	-	157 ICPs were active in the LIS file. I checked a sample of five and confirmed that all were disconnected at the time of the switch, and these were due to timing differences
Total	11,366	11,905	12	

The event detail report was reviewed for all 12,503 switch move ANs to assess compliance with the setting of event dates requirements.

- 12,502 ANs (99.98%) had proposed event dates within ten business days of the NT receipt date.
- One AN had a proposed event dates more than ten business days after the NT receipt date. ICP 1002080274LC4BA used the gaining traders non-compliant date in the AN file then an NW was sent.

The switch breach history report recorded the following breaches:

Breach type	Quantity reported	Finding
ET	1	This was not a genuine breach.

GENH

I checked the validity of AN response codes, by comparing them to the latest ICP information on the registry list report.

Response code	Quantity of ANs	Confirmed correct	Confirmed incorrect	Findings
AA (acknowledge and accept)	94	92	2	Two ICPs had the AMI flag set to yes and had the incorrect code of AA rather than AD.

The event detail report was reviewed for all 94 switch move ANs to assess compliance with the setting of event dates requirements and all had proposed event dates within ten business days of the NT receipt date.

The switch breach history report recorded the following breaches:

Breach type	Quantity reported	Finding
T2	9	All were genuine and were sent late due to a change of staff and using outdated processes to manage these. Processes are being reviewed .

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.8</p> <p>With: Clause 10(1) of schedule 11.3</p>	<p>GENE</p> <p>All five “AA” AN files sampled of a possible nine ICPs sent with the incorrect code. “AD” should have been used.</p> <p>One “AD” AN file sampled of a possible 91 ICPs sent with the incorrect code. “PD” should have been sent.</p> <p>One “OC” AN file sampled of a possible 105 ICPs sent with the incorrect code. “AD” should have been sent.</p> <p>One AN had proposed event dates more than ten business days after the NT receipt date.</p> <p>Seven of a possible 15 ICP switch requests should not have been accepted as they were “inactive - new connections in progress”.</p> <p>Three ANs had proposed event dates more than ten business days after the NT receipt date.</p> <p>Five valid ET breaches.</p> <p>One E2 breach.</p> <p>GEOL</p>

<p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>All five "AA" AN files sampled of a possible 46 ICPs sent with the incorrect code. "AD" should have been used.</p> <p>ICP 0314488030LCECF sent with the incorrect "MU" AN code.</p> <p>All five "OC" AN files sampled of a possible 216 ICPs sent with the incorrect code. "PD" should have been used.</p> <p>One AN had a proposed event date more than ten business days after the NT receipt date.</p> <p>GENH</p> <p>Two "AA" AN files sent with the incorrect code. "AD" should have been used.</p> <p>Nine T2 breaches.</p> <p>Potential impact: Low</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	
Low	<p>The controls are rated as moderate as the AN hierarchy needs review and will be reviewed as part of the new system.</p> <p>The audit risk rating is low as this has no direct impact on reconciliation.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
We will also provide some refresher training to our Switching team regarding compliance and the importance of ensuring the information provided to the gaining retailer is correct.	01/07/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
The Switching processes will be reviewed as part of our upcoming billing platform / CRM change	TBC	

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

Code reference

Clause 10(2) Schedule 11.3

Code related audit information

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

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

Audit observation

Event detail reports were reviewed to identify AN files issued by Genesis during the audit period, and assess compliance with the requirement to meet the setting of event dates requirement.

Audit commentary

GENE

For 2,303 of 2,312 switch move ANs the gaining trader's requested transfer date was applied as the AN proposed event date. The proposed event date was earlier than the gaining trader requested, and the switch was completed for the earlier date due to human error.

GEOL

For all of the 12,504 switch move ANs the gaining trader's requested transfer date was applied as the AN proposed event date.

GENH

For all 111 switch move ANs the gaining trader's requested transfer date was applied as the AN proposed event date. Switches were completed as required by this clause.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.10</p> <p>With: Clause 10 (2) of schedule 11.3</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>One AN file sent with a proposed gain date earlier than the gaining traders requested date.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: None</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
Low	<p>The controls are recorded as strong as they are robust. This was a one-off human error.</p> <p>The audit risk rating is low as only one ICP was affected.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
We will also provide some refresher training to our Switching team regarding compliance and the importance of ensuring the information provided to the gaining retailer is correct.		01/07/2024	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
The Switching processes will be reviewed as part of our upcoming billing platform / CRM change		TBC	

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 Genesis during the audit period. The accuracy of the content of CS files was confirmed by checking a sample of records per trader code. 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 an average daily kWh that was negative, zero, or over 200 kWh were identified. A sample of these CS files were checked to determine whether the average daily consumption was correct.

Audit commentary

CS files are automatically generated from Gentrack for GENE and GEOL. The switch breach report is used to monitor file timeliness.

The registry functional specification requires estimated daily kWh to be based on the average daily consumption for the last read-to-read period. Genesis calculates the average daily consumption from the last billed actual to the switch read when switch read is an actual, and from the last billed actual to actual when the switch read is an estimate. This is not based on the average daily consumption from the two most recent reads. The Genesis process is likely to produce a more accurate indication of the average daily consumption especially where the read-to-read period may be for a day, but as it does not meet the code's requirements the current methodology is recorded as non-compliant.

Switching is manually carried out directly in the registry for GENH.

GENE

Analysis of the estimated daily kWh on the event detail report identified:

Count of switch move CS files	Estimated daily kWh	Findings
Negative	-	Compliant.
Zero	121	I sampled five ICPs and found that zero was incorrect for four cases. These were due to human error.
More than 200 kWh	10	I sampled the five ICPs with the largest average daily consumption and confirmed they were correct.

I checked the 1,061 switch move CS files for inconsistencies between last actual read dates and switch event read types, and checked a sample of exceptions:

- 113 CS file had estimated switch event reads where the last actual read date was on the last day of responsibility; I checked a sample of five and found that the last read date is defaulting to the day before the event date, which is a known system issue,
- one CS file had a last actual read date after the effective switch date; I found this was due to human error,
- one CS file with a last actual read date on the switch event date, I found this was due to human error,
- seven CS files with missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows; all seven were switched at the “inactive - new connection in progress” status so there was no metering recorded - this is discussed in **section 4.8**.

The accuracy of the content of CS files was confirmed by checking a further five switch move CS files. One error was identified; ICP 1000605006PC707 was sent with estimated switch event reads where the last actual read date was on the last day of responsibility. This is a known system issue that is expected to be fixed with the new system.

GEOL

Analysis of the estimated daily kWh on the event detail report identified:

Count of switch move CS files	Estimated daily kWh	Findings
Negative	-	
Zero	1,385	I sampled five ICPs and found that zero was incorrect for one case. This was due to human error.
More than 200 kWh	11	I sampled the five ICPs with the largest average daily consumption and confirmed they were correct.

I checked the 12,204 switch move CS files for inconsistencies between last actual read dates and switch event read types, and checked a sample of exceptions:

- 586 CS files had estimated switch event reads where the last actual read date was on the last day of responsibility; I checked a sample of five and found that the last read date is defaulting to the day before the event date, which is a known system issue,
- three CS files had a last actual read date after the effective switch date, I found these was due to human error,
- 12 CS files with a last actual read date on the switch event date, I checked a sample of five and found all were due to human error,
- six CS files with missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows; these were checked and found:
 - two were sent without these lines due to human error,
 - two were switched at the “inactive - new connection in progress” status so there was no metering recorded - this is discussed in **section 4.8**, and
 - two were due to the ICP being disconnected with no metering present.

The accuracy of the content of CS files was confirmed by checking a further five MI CS files, which were all correct.

GENH

111 switch move CS files were issued during the audit period. I checked the CS file content, and none had any readings and all were sent as estimates with same read and CS event date. These are submitted using C&I HHR data, so no reads are expected by the gaining trader.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.10 With: Clause 11 of schedule 11.3</p> <p>From: 01-Jan-23 To: 16-Nov-23</p>	<p>The average daily consumption calculation is not calculated from the read-to-read period.</p> <p>GENE</p> <p>Four of a sample of five of a possible 121 ICPs were sent incorrectly with an average daily consumption of zero.</p> <p>All five ICPs sampled of a possible 113 where the last read date was shown as the last billed date but the last read date was earlier.</p> <p>One CS file had a last actual read date after the effective switch date.</p> <p>One CS file with a last actual read date on the switch event date.</p> <p>Seven CS files sent with missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows.</p> <p>GEOL</p> <p>One of a sample of five of a possible 1,385 ICPs were sent incorrectly with an average daily consumption of zero.</p> <p>All five ICPs checked of a possible 586 were sent with an incorrect last read date of the day before the switch but the read was an estimate.</p> <p>Three CS files had a last actual read date after the effective switch date.</p> <p>All five checked of a possible 12 CS files sent with an incorrect last actual read date on the switch event date.</p> <p>Four CS files sent with missing CSMETERINSTALL, CSMETERCOMP or CSMETERCHANNEL rows.</p> <p>Potential impact: Low</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>Low</p>	<p>The controls are recorded as moderate but there is room for improvement.</p> <p>The audit risk rating is low as the CS read information is correct so there is no impact on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status

This process will be reviewed and corrected as part of our upcoming billing platform / CRM change	TBC	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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 date the registry manager gives the gaining trader written notice of having received information about the switch completion, must provide to the losing trader a changed validated meter reading or a permanent estimate supported by 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 reports were analysed to identify all read change requests and acknowledgements during the audit period. A sample of RR and AC files issued for transfer switches were checked to confirm that the content was correct, and that Gentrack and Derive+ reflected the outcome of the RR process.

I also checked for CS files with estimated readings provided by other traders where no RR was issued, to determine whether the correct readings were recorded in Gentrack and Derive+.

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

Audit commentary

RR

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required.

GENE GENE issued 311 RR files for switch moves. 311 were accepted and 74 were rejected. A sample of ten RRs were checked, including five accepted and five rejected files. There was a genuine reason for GENE’s RRs, and they were supported by at least two validated readings.

My checks found:

One ICP where the expected read was not applied in Gentrack or Derive+:

ICP	Event date	Expected read	Gentrack read	Difference	Comments
0386809437LC0E1	13 January 2023	15,818	16,615	797	The read is incorrect in both Gentrack and Derive+. This is being corrected.

Three ICPs with different reads in Gentrack vs Derive+:

ICP	Event Date	Gentrack read	Derive+ read	Difference
0278813038LC426	17 February 2023	47,421	50,289	-2,868
1002058063LC88B	9 March 2023	16,571	16,747	-176
0081121378WE002	14 February 2023	37,742	39,976	-2,234
Total				-5,278

As detailed in **section 4.4**, discussion during the site visit identified that RR reads weren’t always flowing through to Derive+. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly. This is recorded as non-compliance below and in **sections 2.1** and **12.7**.

The last audit’s recommendation to run a query to compare all Gentrack start reads to Derive+ start reads for the previous 14 month period, because there were a high number of discrepancies found in the random samples, was not adopted; therefore, any discrepancies now outside the 14-month revision period will not be corrected. This is recorded as non-compliance in **section 2.1**.

The switch breach history recorded 70 RR breaches which were between 123 and 245 days overdue. A typical sample of ten of these were checked and found:

- six were due to the time taken to get meter readings,
- three were due to resourcing issue which affected timeliness during August to September 2023, and

- ICP 0000872240WP00A was late due more than one trader being needed to process RRs to correct the reads.

GEOL GEOL issued 41 RR files for switch moves. 36 were accepted and five were rejected. A sample of ten RRs were checked, including five accepted and all five rejected files. There was a genuine reason for GEOL’s RRs, and they were supported by at least two validated readings.

My checks found six ICPs with different reads in Gentrack vs Derive+:

ICP	Event Date	Gentrack read	Derive+ read	Difference
0900087078PCA3E	5 February 2023	16,218	16,917	-699
0173949827LC022	22 February 2023	61,972	62,480	-508
0000311081WEE5D	17 June 2023	17	0	17
0458141860LC876	17 February 2023	90,458	94,293	-3,835
0173949827LC022	22 February 2023	61,972	62,480	-508
1001146140LCF9C	1 March 2023	45,228	52,540	-7,312
Total				-12,845

As detailed in **section 4.4**, discussion during the site visit identified that RR reads weren’t always flowing through to Derive+. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly. This is recorded as non-compliance below and in **sections 2.1** and **12.7**.

The switch breach history recorded one RR breach which was 145 days overdue. This was due due to the time taken to get meter readings.

GENH No RR files were recorded on the event detail report, and the switch breach history report did not record any RR breaches.

AC

When a high or low read is identified through the read validation process for a new switch in, the ICP is investigated to determine whether a read change is required.

GENE GENE issued 13 AC files for switch moves. Five were accepted, and seven were rejected. All were correct and the switch was withdrawn for all seven rejected RRS.

The switch breach history report did not record any late AC files.

GEOL GEOL issued 169 AC files for switch moves. 104 were accepted and 65 were rejected. A sample of 15 ACs were checked, including five accepted and ten rejected files. All were correct and eight of the rejected ten RRs sampled were accepted on a subsequent corrected RR file.

The switch breach history report did not record any late AC files.

GENH No AC files were recorded on the event detail report, and the switch breach history report did not record any AC breaches.

CS files with estimated reads where no RR is issued

GENE Review of five switch move CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Gentrack and Derive+.

GEOL Review of five switch move CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Gentrack and Derive+.

GENH Review of both switch move CS files with estimated reads where no RR was issued confirmed that the correct readings were recorded in Gentrack and Derive+.

Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 4.11 With: Clause 12 of schedule 11.3 From: 01-Jan-23 To: 16-Nov-23</p>	<p>GENE Four of a sample of ten of a possible 311 RR files were incorrect. Three had the correct read in Gentrack but the incorrect read in Derive+. One RR read was not recorded correctly in Gentrack and Derive+. These errors have resulted in an over submission of 6,075 kWh. 70 RR breaches.</p> <p>GEOL Six of a sample of ten of a possible 41 RR files were incorrect. All had the correct read in Gentrack but the incorrect read in Derive+ resulting in an over submission of 12,845 kWh. One RR breach. Potential impact: High Actual impact: High Audit history: Multiple times Controls: Moderate Breach risk rating: 6</p>	
Audit risk rating	Rationale for audit risk rating	
High	<p>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 high based on the over submission found in the sample checked and the 322 remaining RR files potentially affected.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status

A process has now been implemented to ensure that RRs in Gentrack flow through to Derive+ and all incorrect submission as a result of this will be corrected via the wash-up process	01/04/2024	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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

Code reference

Clause 14 Schedule 11.3

Code related audit information

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

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

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

A gaining trader must advise the registry manager of the switch and expected event date no later than three 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

The switch gain process was examined to determine when Genesis deem all conditions to be met. An extreme case sample of NTs were checked to confirm whether they were notified to the registry within three business days.

HH NTs on the event detail report were matched to the metering information on the meter event details report to confirm whether the correct switch type was selected.

Audit commentary

The HH switching process is manual. The GENH team have had staff changes and some out of date processes were used inadvertently. The team are now up to speed with the current switching rules. GENH manages all gaining trader HHR switches manually.

GENH

Review of the event detail report found 121 HH switch NTs where metering details were available on the registry list and/or meter installation details report. None of the ICPs had a metering category of 1 or 2.

I checked the ten most backdated NTs and found eight were sent within three business days of pre-conditions being cleared, and the correct switch type was selected, but ICPs 0266353215LC8BB and 0001241351PCF9A were sent late due to late notification.

GENE

No HH switch requests were issued. All ICPs were requested as transfer switches or switch moves where metering details were available on the registry list and/or meter installation details report had a metering category below 3.

GEOL

No HH switch requests were issued. All ICPs were requested as transfer switches or switch moves where metering details were available on the registry list and/or meter installation details report had a metering category below 3.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 4.12</p> <p>With: Clause 14 Schedule 11.3</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENH</p> <p>Two late NT files.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Three times previously</p> <p>Controls: Moderate</p> <p>Breach risk rating: 2</p>
Audit risk rating	Rationale for audit risk rating
<p>Low</p>	<p>The controls are recorded as moderate because they mitigate risk most of the time.</p> <p>The impact on settlement and participants is minor; therefore, the audit risk rating is low.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
The Switching processes will be reviewed as part of our upcoming billing platform / CRM change	TBC	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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

An event detail report was reviewed to identify AN files issued by Genesis during the audit period, and the switch breach history report was examined.

Audit commentary

The HH switching process is manual. GENH manages all gaining trader HHR switches.

180 HH AN files were issued for the GENH trader code and none for the GENE or GEOL codes. One AN breach was recorded. This was due to the file being sent to the registry after 7 30pm and therefore the registry records it as being sent the next day. This is recorded as non-compliance.

Audit outcome

Non-compliant

Non-compliance	Description
Audit Ref: 4.13 With: Clause 15 Schedule 11.3 From: 12-Jul-23 To: 13-Jul-23	GENH One late AN file. Potential impact: None Actual impact: None Audit history: None Controls: Strong Breach risk rating: 1
Audit risk rating	Rationale for audit risk rating

Low	The controls are recorded as strong as the team are now aware of the registry opening hours. 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
We are confident that we have strong controls in place to manage this. The Switching processes will be reviewed as part of our upcoming billing platform / CRM upgrade	TBC	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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 five 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

The HH switching process was examined. The switch breach history report for the audit period was reviewed to identify late CS files.

Audit commentary

The HH switching process is manual. GENH manages all gaining trader HHR switches.

GENH

119 HH CS files were issued, and the CS content was as expected. The switch event history report did not record any alleged breaches for HH switches.

GENE

No HH CS files were issued, and the switch event history report did not record any alleged breaches for HH switches.

GEOL

No HH CS files were issued, and the switch event history report did not record any alleged breaches for HH switches.

Audit outcome

Compliant

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

Code reference

Clauses 17 and 18 Schedule 11.3

Code related audit information

A losing trader or gaining trader may request that a switch request be withdrawn at any time until the expiry of 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)):*
 - o *the participant identifier of the trader making the withdrawal request (clause 18(c)(i));*
 - and*
 - o *the withdrawal advisory code published by the Authority (clause 18(c)(ii))*
- *within five 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

Event detail reports were reviewed to:

- identify all switch withdrawal requests issued by Genesis 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 Genesis, and check a sample, and
- confirm timeliness of switch withdrawal requests, as this is not currently being identified in the switch breach report.

The switch breach reports were checked for any late switch withdrawal requests or acknowledgements.

Audit commentary

NW

These are reviewed on a case-by-case basis.

GENE GENE issued 2,537 NW files. 2,133 (84.1%) were accepted and 404 were rejected. The content of a sample of 19 NWs including three per reason code was checked, and in

three cases the withdrawal reasons provided by GENE were not correct. They should have been sent with CE but were sent with DF. Training has been given.

The switch breach history report recorded:

- 58 SR breaches where the NW arrival date was more than ten business days after the initial NW for the same trader requesting the withdrawal; the files were one to 179 days overdue - I checked the ten latest files and found in all cases there was a lot of investigation involved to identify the best course of action, and
- 331 NA breaches where the NW was issued more than two calendar months after the switch completion date; the files were 60 to 271 days overdue - I checked the ten latest files and found and found that in most cases, the customer contact was late, or the incorrect property was identified late.

GEOL GEOL issued 1,845 NW files. 1,672 (90.6%) were accepted and 173 were rejected. The content of a sample of 20 NWs including three per reason code was checked and in three cases the withdrawal reasons provided by GENE were not correct. They should have been sent with CE but were sent with DF. Training has been given. There was one NW file sent in error.

The switch breach history report recorded:

- 16 SR breaches where the NW arrival date was more than ten business days after the initial NW for the same trader requesting the withdrawal; the files were one to 66 days overdue - I checked the five latest files and found in all cases there was a lot of investigation involved to identify the best course of action, and
- 126 NA breaches where the NW was issued more than two calendar months after the switch completion date; the files were 61 to 272 days overdue - I checked the ten latest files and found that in most cases, the customer contact was late, or the incorrect property was identified late.

GENH GENH issued 61 NW files. 57 (93.4%) were accepted and four were rejected. The content of a sample of 11 NWs was checked including two (or all) for each response code and all rejected withdrawal requests. All NW codes were correct.

The switch breach history report recorded three switch withdrawal breaches. All were backdated switches.

AW

The switch breach report is used to manage timeliness.

GENE 477 (12.1%) of the 3,926 AWs issued by GENE were rejections. I reviewed a sample of 23 rejections by GENE (including at least three or all per withdrawal reason code), and confirmed they were rejected based the information available at the time the response was issued.

The switch breach history report did not record any late AW files.

GEOL 246 (10.2%) of the 2,420 AWs issued by GEOL were rejections. I reviewed a sample of 21 rejections by GEOL (including at least three or all per withdrawal reason code), and confirmed they were correctly rejected based the information available at the time the response was issued.

The switch breach history report did not record any late AW files.

GENH Seven (16.3%) of the 43 AWs issued by GENH were rejections. . I reviewed all seven rejections by GENH, and confirmed they were rejected based the information available at the time the response was issued.

The switch breach history report did not record any late AW files.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 4.15 With: Clause 17 & 18 of schedule 11.3</p> <p>From: 01-Jan-23 To: 16-Nov-23</p>	<p>GENE Three incorrect NW codes of a sample of 19 ICPs checked. 58 SR breaches. 331 NA breaches.</p> <p>GEOL Three incorrect NW codes of a sample of 20 ICPs checked. One NW file sent in error. 16 SR breaches. 126 NA breaches. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1</p>		
Audit risk rating	Rationale for audit risk rating		
<p>Low</p>	<p>The controls are recorded as strong because they mitigate risk to an acceptable level. The audit risk rating is assessed to be low as this will have a minor effect on reconciliation.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We will also provide some refresher training to our Switching team regarding compliance and the importance of ensuring the correct switching information is used.</p>		<p>01/07/2024</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur		Completion date	
<p>The Switching processes will be reviewed as part of our upcoming billing platform / CRM change</p>		<p>TBC</p>	

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

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

The Genesis policy regarding the management of meter reading expenses is compliant.

Audit outcome

Compliant

4.17. Switch 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 reports were analysed to identify all withdrawn switches with a CX code applied 180 days of switch completion.

Audit commentary

Genesis confirmed that they contact customers who are switching out to confirm that the switch request is valid, but do not offer enticements for the customer to remain with Genesis. They will offer enticements

to retain gas customers but will only present offers to electricity customers if invited to do so by the customer.

An alleged breach of clause 11.15AA was recorded:

Breach ref	Clause breached	Status	Comment
2307GENE2	Part 11 clause 11.15AA	Closed	No breach found

I checked the outcome of the alleged breach that was in progress in the last audit period and found:

Breach ref	Clause breached	Status	Comment
2212GENE2	Part 11 clause 11.15AA	Closed	No breach found

GENE

527 withdrawals were issued with a CX reason code within 180 days of switch completion or before switch completion where GENE was the losing trader. 13 of the NWs were rejected. I checked the 13 rejections and listened to five phone calls and found all were compliant and no attempt was made to entice the customer unless requested to do so as a result of the gas retention call.

GEOL

Three withdrawals were issued with a CX reason code within 180 days of switch completion or before switch completion where GEOL was the losing trader. I checked all 18 and listened to five calls and found all were compliant.

GENH

GENH does not hold any residential customer accounts, therefore this clause does not apply to them.

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

All ICPs with unmetered load recorded in the trader details on the registry are recorded in Gentrack with unmetered load. Unmetered load submissions are calculated in Derive+ based on the registry daily unmetered kWh.

The completeness and accuracy of unmetered load details was determined by reviewing the audit compliance and registry list reports.

GENE GENE supplies 256 active ICPs with shared unmetered load recorded by the distributor. All values matched.

GEOL GEOL supplies 45 active ICPs with shared unmetered load recorded by the distributor. The daily unmetered kWh matched the calculation based on the distributor’s information within ± 0.1 kWh. As detailed in **section 3.7**, ICP 0007124770RN8A3 is recorded as having shared unmetered load associated with Hyllton Heights but the distributor has no load details recorded. This was a shared unmetered load associated with ICP 0007214151RN22D which was decommissioned by Orion on 4 February 2023 and will be resulting in an estimated minor over submission of 278 kWh per annum. This is recorded as non-compliance below.

GENH GENH did not supply any ICPs with shared unmetered load.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 5.1 With: Clause 11.14 From: 01-Jan-23 To: 16-Nov-23	<p>GEOL</p> <p>ICP 0007124770RN8A3 incorrectly has shared unmetered load recorded.</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		
Low	<p>Controls are rated as moderate as they will mitigate risk most of the time.</p> <p>The impact on settlement is minor, therefore the audit risk rating is low.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
This ICP has now been corrected and the shared unmetered load removed		01/04/2024	Cleared
Preventative actions taken to ensure no further issues will occur		Completion date	
Our Unmetered Account specialist has been purely focused on DUML but will be taking over the responsibility for all unmeted load. The above mentioned ICPs will be reviewed, and correction made where required to ensure compliance		01/09/2024	

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. Any ICPs with unmetered load greater than 3,000 kWh per annum were examined.

Audit commentary

GENE

GENE supplies 101 active ICPs with unmetered load over 3,000 kWh p.a. recorded.

24 had unmetered load between 3,000 and 6,000 kWh p.a. Six were DUML ICPs and 18 ICPs were confirmed to have an approved load type. ICP 1001117616UN1D9 has been further investigated. The customer is confirmed to be the Ministry for Culture and Heritage. The assets were thought to have been transferred to Waka Kotahi in 2016 but this was never completed. I recommend below that GENE liaise with Wellington Electricity to determine what load is attached to this ICP.

77 ICPs had unmetered load greater than 6,000 kWh p.a. and 71 of those were DUML ICPs. The other six ICPs were checked.

ICP	2022 comment	2023 comment	2024 comment
0005000772HBA61	Big Save Furniture employed an electrician to reduce the number of lights and replace the remaining with LED's. The electrician has to date failed to reply to emails and phone calls to provide the appropriate information for the work carried out.	Big Save - Still unable to get a definitive response in relation to the unmetered load currently on site. We will arrange for this ICP to be audited to ascertain the load.	This site switched to Meridian Energy on 1 December 2023.
0000562361UN29B	Genesis have requested the information from the distributor who has populated the distributor unmetered load field, to ascertain what the populated load is, to be able to establish its validity. Genesis will be discussing this connection with POCO 3 August 2021 - POCO initiated this discussion.	Under investigation	No update since last audit.
0088051701WM2E0	These lights relate to harbour lights. The site is vacant. Customer has not been able to be found, decommissioning may be the next steps once any safety	Genesis to further liaise with the network company to arrange for a decommission.	GENE investigating getting this site metered.

	concerns have been revised.		
0000455891UN0A2	<p>This is a bucket ICP for Nulite signs in West Auckland. Nulite have provided a database where Genesis has established that due to the lamp types it will potentially always be greater than threshold. The signs are maintenance free and unsure whether an LED lamp is available for replacement. Discussions will need to be had as to whether the cost to serve DUML is warranted and whether an exemption is required to remove these assets from the DUML requirements. Failing that it would be in the customers best interest to have one trader manage their energy usage for these signs.</p>	<p>DUML Stakeholder to liaise with the customer in relation to the load and if required will add to the DUML database and arrange for audit to be conducted.</p>	<p>GENE has found a contact. This is expected to be progressed with the customer as part of the next DUML audit of Nulite.</p>
1001243372UN366	<p>This is a bucket ICP for Nulite signs on the North Shore. Nulite have provided a database where Genesis has established that due to the lamp types it will potentially always be greater than threshold. The signs are maintenance free and unsure whether an LED lamp is available for replacement. Discussions will need to be had as to</p>	<p>DUML Stakeholder to liaise with the customer in relation to the load and if required will add to the DUML database and arrange for audit to be conducted.</p>	<p>GENE has found a contact. This is expected to be progressed with the customer as part of the next DUML audit of Nulite.</p>

	whether the cost to serve DUML is warranted and whether an exemption is required to remove these assets from the DUML requirements. Failing that it would be in the customers best interest to have one trader manage their energy usage for these signs.		
0000179860TR9B6	Wellington International Airport Limited. Genesis account manager is currently in the process of enquiries. Genesis and the customer need to ascertain whether these lights still exist and or whether they have already been upgraded or not and recommend any potential solution. Genesis has not been able to ascertain whether these assets are still current due to airport upgrades.	DUML Stakeholder to liaise with the customer in relation to the load and if required will add to the DUML database and arrange for audit to be conducted.	No update since last audit.

ICP 0000081066CPA8F recorded in the last audit has been decommissioned.

GEOL GEOL supplies three active ICPs with unmetered load between 3,000 and 6,000 kWh p.a. and no ICPs with unmetered load over 6,000 kWh p.a. Two ICPs were confirmed to have an approved load type and ICP 0003738524HBF5F has now switched away.

GENH GENH does not supply any active ICPs with unmetered loads over 3,000 kWh p.a.

Recommendation	Description	Audited party comment	Remedial action
Confirm unmetered load	GENE Liaise with the Wellington Electricity to confirm the expected unmetered load associated with ICP1001117616UN1D9.	We have reached out to Wellington Electricity regarding this ICP and will continue to liaise with them on this	Investigating

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 5.2 With: Clause 10.14 (2)(b) From: 01-Apr-22 To: 16-Nov-23	GENE Six ICPs with unmetered load over 6,000 kWh per annum. Potential impact: Medium Actual impact: Unknown Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate as investigations have been progressed for most but not all. The impact on settlement is unknown because the load has not been checked but submission is occurring. I have recorded the audit risk rating as low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will continue to investigate the ICPs listed to ensure the load is correct and if so that the correct DUML processes are followed		01/11/2024	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
Our Unmetered Account specialist has been purely focused on DUML but will be taking over the responsibility for all unmetered load.		01/09/2024	

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

Code reference

Clause 10.14 (5)

Code related audit information

If the unmetered load limit is exceeded the retailer must:

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

Audit observation

The process for the management of unmetered load thresholds is discussed in **section 5.2** above. The AC020 reports were examined to identify all unmetered load over 6,000 kWh per annum. Any ICPs with unmetered load greater than 6,000 kWh per annum were examined.

Audit commentary

GENE

Six ICPs with estimated unmetered consumption over 6,000 kWh per annum, which do not have a DUML database listed on the Authority’s DUML audit register, were identified. Remedial actions have not been completed for these ICPs within the required time frame.

GEOL

No ICPs with unmetered load over 6,000 kWh per annum are supplied.

GENH

No ICPs with unmetered load over 6,000 kWh per annum are supplied.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 5.3 With: Clause 10.14 (5) From: 01-Jul-19 To: 16-Nov-23	GENE Six unmetered loads over 6,000 kWh per annum and not resolved within the allowable timeframes. Potential impact: Medium Actual impact: Unknown Audit history: Multiple times Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are recorded as moderate as investigations have been progressed for most but not all. The impact on settlement is unknown because the load has not been checked but submission is occurring. I have recorded the audit risk rating as low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We will continue to investigate the ICPs listed to ensure the load is correct and if so that the correct DUML processes are followed		01/11/2024	Investigating
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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

Genesis is responsible for 36 DUML databases. Most of these were audited by Veritek during the audit period.

All DUML is supplied using the GENE participant code.

I have included the findings from the profile audit conducted in 2023, which determined that the NST, CST and SST profile rules are not fit for purpose because they allow the shape files for each profile to be different to actual on/off times by up to 29 minutes at the start and end of each streetlight “on” period.

Audit commentary

The profile audit conducted in 2023 determined that the NST, CST and SST profile rules are not fit for purpose because they allow the shape files for each profile to be different to actual on/off times by up to 29 minutes at the start and end of each streetlight “on” period. Genesis undertook to change the profiles to DST and the Authority agreed to a timeframe of the end of March 2024 for this remedial action to occur. This will be checked during each DUML audit from April 1st onwards to ensure compliance.

The Electricity Authority issued a memo on 18 June 2019 confirming that the code requirement to calculate the correct monthly load must:

- take into account when each item of load was physically installed or removed, and
- wash up volumes must take into account where historical corrections have been made to the DUML load and volumes.

Genesis is getting reporting from some councils now that enable them to calculate load changes at a daily level, however there are some databases where a snapshot is still being used.

I have included the submission variance in the last column of the main DUML table on the next page. Additionally, I have included in the table below the ten databases with submission related issues where the variance is greater than 50,000 kWh per annum:

Database	Main issues	Potential kWh impact (per annum)
Waka Kotahi Northland	The database accuracy is poor. A data cleanse is underway.	Over submission of 60,400 kWh
Waka Kotahi Waikato	The findings of this audit were disputed. The field audit identified a large number of inaccuracies. The next audit of this database is scheduled to be completed by 3 June 2024.	Under submission of 235,500 kWh

Database	Main issues	Potential kWh impact (per annum)
Waka Kotahi BOP	This previously covered BOP East only and that area has not been audited since 2018. NZ Streetlighting on behalf of Waka Kotahi have now completed the amalgamation of the BOP ICPs. Genesis is working to switch in additional ICPs. Once this is complete and they receive database extracts the audit will be programmed in.	Over submission of 157,655 kWh
Waka Kotahi Lower North Island	The field audit found over half the sample was incorrect indicating that the change management processes are not working.	Over submission of 76,000 kWh
Whakatane DC	Genesis continues to use the registry figures as no database extract is being provided by the Council causing the estimated variance between the registry and the database extract provided for the audit. The next audit of this database is scheduled to be completed by 1 June 2024	Under submission of 134,438 kWh
Napier CC	The database accuracy is poor as changes and new connections are not being updated in the database. Genesis has now got engagement from the field contractor which should help improve the database update processes.	Over submission of 87,900 kWh
Hutt CC	The field audit confirmed the database to be within the allowable threshold but database inaccuracies with missing or incorrect values is causing under submission to occur. Hutt CC are undertaking a data cleanse process to improve the database accuracy.	Under submission of 54,732 kWh
Waipa DC	The database accuracy is poor as changes and new connections are not being updated in the database.	Under submission of 66,800 kWh
Gisborne DC	The LED roll out updates are not being entered into the database in a timely manner resulting in over submission.	Over submission of 59,500 kWh
Hastings DC	There were a high number of errors found in the field audit for the Parks and Amenity lighting and it was recommended that the management processes for these lights be reviewed.	Under submission of 85,600 kWh

The table below shows that 30 DUML databases have had their audits completed within the required timeframe. There are two DUML audit's outstanding and one was submitted late.

		Compliance Achieved (Yes/No)									Database indicative kWh +=over -=under Variance PA
Database	DUML Audit completed 16A.26 Next audit date recorded below	Deriving submission information 11(1) of schedule 15.3	ICP identifier 11(2)(a) of schedule 15.3	Location of items of load 11(2)(b) of schedule 15.3	Description of load 11(2)(c)&(d) of schedule 15.3	All load recorded in database 11(2A) of schedule 15.3	Tracking of load changes 11(3) of schedule 15.3	Audit trail 11(4) of schedule 15.3	Database accuracy 15.2 and 15.37B(b)	Volume information accuracy 15.2 and 15.37B(c)	
Waka Kotahi Waikato	3 June 2024	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	-235,300
Waka Kotahi Northland	15 September 2024	No	Yes	Yes	Yes	No	Yes	Yes	No	No	+60,400
Waka Kotahi BOP	25 May 2018 overdue	No	Yes	Yes	No	No	No	Yes	No	No	157,655
Waka Kotahi Greater Wellington region	1 October 2023 overdue	No	No	Yes	No	Yes	Yes	Yes	No	No	-29,500
Waka Kotahi Hawkes Bay	1 March 2025	No	Yes	Yes	Yes	No	Yes	Yes	No	No	+14,700
Waka Kotahi Lower North Island	13 October 2023	No	Yes	Yes	No	No	Yes	Yes	No	No	+76,000
Waimate DC	31 March 2025	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	-
Central Hawkes Bay DC	1 June 2024	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	-
Hastings DC	1 June 2024	No	No	Yes	No	No	Yes	Yes	No	No	-85,600
Wairoa DC	28 February 2025	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Very minor
Kaipara DC	31 March 2025	No	Yes	Yes	Yes	No	Yes	Yes	No	No	-3,989

		Compliance Achieved (Yes/No)									Database indicative kWh +=over -=under Variance PA
Database	DUML Audit completed 16A.26 Next audit date recorded below	Deriving submission information 11(1) of schedule 15.3	ICP identifier 11(2)(a) of schedule 15.3	Location of items of load 11(2)(b) of schedule 15.3	Description of load 11(2)(c)&(d) of schedule 15.3	All load recorded in database 11(2A) of schedule 15.3	Tracking of load changes 11(3) of schedule 15.3	Audit trail 11(4) of schedule 15.3	Database accuracy 15.2 and 15.37B(b)	Volume information accuracy 15.2 and 15.37B(c)	
Sth Taranaki DC	14 April 2024	No	No	No	No	No	Yes	Yes	Yes	No	+13,900
Mackenzie DC	21 July 2024	No	No	Yes	No	No	Yes	Yes	No	No	+12,700
Kawerau DC	15 February 2024	No	Yes	Yes	Yes	No	Yes	Yes	No	No	+11,131
Opotiki DC	29 November 2024	No	Yes	Yes	No	No	Yes	Yes	No	No	Very minor
Whakatane DC	1 June 2024	No	Yes	No	Yes	No	Yes	Yes	No	No	-134,438
Far North DC	1 September 2024	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	-
Napier CC	10 March 2024	No	No	Yes	Yes	No	Yes	Yes	No	No	+87,900
Otorohonga DC	1 June 2025	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Minor
Alandale Retirement Village	28 July 2024	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
Tasman DC	12 August 2024	No	Yes	No	No	Yes	Yes	Yes	No	No	+35,700
Timaru DC	1 June 2025	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Very minor
Queenstown Lakes DC	1 March 2026	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-
Southland DC	1 March 2024	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	+22,900
Gisborne DC	1 September 2024	No	Yes	Yes	Yes	No	Yes	Yes	No	No	+59,500

		Compliance Achieved (Yes/No)									Database indicative kWh +=over -=under Variance PA
Database	DUML Audit completed 16A.26 Next audit date recorded below	Deriving submission information 11(1) of schedule 15.3	ICP identifier 11(2)(a) of schedule 15.3	Location of items of load 11(2)(b) of schedule 15.3	Description of load 11(2)(c)&(d) of schedule 15.3	All load recorded in database 11(2A) of schedule 15.3	Tracking of load changes 11(3) of schedule 15.3	Audit trail 11(4) of schedule 15.3	Database accuracy 15.2 and 15.37B(b)	Volume information accuracy 15.2 and 15.37B(c)	
Manawatu DC	1 March 2024	No	Yes	Yes	No	No	Yes	Yes	No	No	+14,090
Upper Hutt CC	1 October 2024	No	Yes	Yes	No	No	Yes	Yes	No	No	-11,500
Hutt CC	20 June 2024	No	Yes	No	Yes	No	Yes	Yes	No	No	-54,732
Nulite	1 June 2024	No	Yes	No	No	No	Yes	Yes	No	No	-23,147
Hamilton CC	29 November 2024	No	Yes	Yes	No	No	Yes	Yes	No	No	-36,500
Waipa DC	30 May 2024	No	Yes	Yes	Yes	No	Yes	Yes	No	No	-66,800
Hauraki DC	1 February 2026	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Very minor
Matamata Piako DC	20 September 2024	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Minor
Taupo DC	1 April 2025	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Minor
Horowhenua DC	18 June 2024	No	No	Yes	No	No	Yes	Yes	No	No	+27,600
Westland DC	1 June 2024	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	+13,700

Audit outcome

Non-compliant

Non-compliance	Description	
<p>Audit Ref: 5.4</p> <p>With: Clause 11 Schedule 15.3</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>Inaccurate submission information for several databases.</p> <p>One database audit report completed late.</p> <p>Two database audits not undertaken by the due date.</p> <p>Potential impact: High</p> <p>Actual impact: High</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 6</p>	
Audit risk rating	Rationale for audit risk rating	
<p>High</p>	<p>The controls are rated as moderate as the Genesis dedicated resource is working full time and effectively to resolve the issues present.</p> <p>There is a major impact on settlement outcomes because there are examples of over submission and under submission; therefore, the audit risk rating is high.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
<p>We have made significant improvements in the DUML space including ensuring we engage with customer regarding audits and improving compliance. Regular meetings are held with Waka Kotahi to discuss database accuracy. Monthly meetings are also help with the auditors who complete our DUML audit to ensure a schedule is in place. We will continue to work with DUML stakeholder to further improve compliance</p>	<p>Ongoing</p>	<p>Identified</p>
Preventative actions taken to ensure no further issues will occur	Completion date	
<p>As Above</p>		

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 reports, meter event details reports, and registry list files were reviewed to determine compliance.

Audit commentary

Metering installations installed

The Genesis new connection process includes a check that metering is installed before electrical connection occurs, or that any unmetered load is quantified. No submission information is determined using subtraction.

GENE The AC020 report recorded 49 “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ten were timing differences and the ICP had metering details added after the report was run,
- 36 had accepted MEP nominations and were awaiting the update of metering details by the MEP, and
- ICP 0000769007WACB3 has since been decommissioned and the customer billed from the meter removal reads.

GEOL The AC020 report recorded one “active” ICP with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 0000160513EN3FB was checked and the MEP had updated the metering details prior to the on-site audit.

GENH The AC020 report recorded two “active” ICPs with a metering category of 9, blank or zero with no unmetered load recorded:

- ICP 1001142422UN978 was a timing difference and metering details were added after the report was run, and
- ICP 0087020011WE8F5 was decommissioned for the same date as the metering was removed.

Distributed Generation

Genesis moves any ICPs that have distributed generation from the HHR profile to the RPS PV1 profile. Registry metering information is loaded into Gentrack, and then transferred to Derive+ when an ICP switches in. Any meter with energy flow direction I will trigger a profile update in Derive+. An exception will be generated if profiles are different in Derive+ and Gentrack, and profiles will be checked and corrected to be consistent in Derive+, Gentrack, and the registry. On an ad hoc basis, the reconciliation team runs a query to identify any ICPs which have had EG registers removed, so that profiles can be corrected.

If a customer wishes to install generation and completes a HomeGen application on the Genesis Energy website, the home generation team arranges for compliant metering to be installed, and the ICP profile is updated as part of the meter change process.

There is now good reporting for DG exceptions and the GENE report is actively managed. The same processes are being introduced for GEOL. The use of the gifting register is a last resort, once all other options have been explored. The audit identified several examples where the gifting register may need to be used, for example, if a customer refuses to have a meter change. I’ve included a recommendation to ensure visibility.

Description	Recommendation	Audited party comment	Remedial action
Distributed generation	Continue with plans for GEOL to adopt GENE processes for DG. Add ICPs to the gifting register once all other options have been exhausted.	This is work in progress and GEOL will adopt GENE processes. We also believe further improvement will be made as part of our billing platform upgrade	In progress

There are three main triggers for the HomeGen team to be aware of a potential DG installation:

- customer completes a HomeGen application on the Genesis Website,
- a daily report is run that checks for ICPs where the distributor has updated the network event field Installation type from L to B, or
- the distributor sends a copy of their network approval for a DG installation to Genesis.

The HomeGen team will make contact with the customers and attempts to arrange a meter change to ensure an EG register is installed as close to the DG installation date as possible. Where a customer refuses the fee for the meter change, the customer is given an option to agree to be placed on the DG gifting register.

The previous audit report recorded that ICPs where the network installation type is already ‘B’ at the of switch were not identified by the Genesis monitoring so actions to engage with the customer were often delayed. The reporting now includes these ICPs. The audit compliance report is used to identify ICPs where the distributor and the MEP indicate that distributed generation is present, but the trader has none.

ICPs with generation volumes can also be detected through reverse rotation meter events, and they may fail billing validations if generation volumes offset load creating negative consumption being detected.

GENE

Review of the registry list identified 7,031 active ICPs with generation indicated by the distributor. The AC020, event detail, registry list and meter installation details reports were reviewed to determine compliance:

<p>Generation recorded by the distributor and an I flow register with no generation compatible profile</p>	<p>Review of the Registry LIS report confirmed that there were ten ICPs with generation recorded by the distributor and an I flow register is present but where GENE did not record a generation compatible profile, a decrease from 29 in the previous audit. PV1 is automatically applied for any registers with a flow direction of G in Derive+, and staff manually adjust profiles to EG1 where generation is not solar.</p> <p>In all ten cases, the PV1 profile was added after the change to “B” by the distributor. The number of days ranged from 16 to 2,215 with an average of 301.</p> <p>None of the ICPs examined were present during the last audit.</p>
<p>Generation recorded by the distributor with no I flow register or generation compatible profile</p>	<p>Review of the registry list and meter installation details report identified 23 ICPs where generation was recorded by the distributor, but there was no I flow register or profile compatible with distributed generation recorded. This is a reduction from 170 identified in the last audit.</p> <p>I reviewed a sample of ten ICPs and confirmed that:</p> <ul style="list-style-type: none"> • none of the ten have EG metering installed, • two ICPs now have the HHR profile, • five ICPs do not have a record in the high-risk database, and Genesis is investigating to determine if DG is present, and • three ICPs have a DG record in the high-risk database. <p>The five ICPs confirmed as having distributed generation and no import export metering and the incorrect profile are recorded as non-compliance below and in section 2.1.</p> <p>During the previous audit, it was recorded that there was difficulty changing the meter for ICP 0005617142WE037 and it appeared the meter may have been running backwards. The meter has now been changed, but there is still no generation register. This ICP is one of the two with a HHR profile mentioned above. The other ICP with a HHR profile was also present last year as was one of the five ICPs without a record in the high-risk database.</p>
<p>Generation profile recorded but no generation details recorded by the distributor</p>	<p>240 (a reduction from 249 in the last audit) ICPs had profiles indicating generation was present, but no generation was recorded by the distributor. 214 of those had settled I flow registers present and a review of ten of these ICPs identified five as having non-zero volumes being measured by the meter for the I flow register for January 2024. One of these has been updated in the registry. The other five ICPs have no I flow registers present, with zero consumption recorded.</p>
<p>HHR profile, distributor indicates DG present but no “I” flow register.</p>	<p>97 ICPs have a HHR profile, and the distributor indicates DG is present, but the meter does not have an “I” flow register. I checked a sample of ten and four were confirmed as having DG present.</p>
<p>Generation profiles inconsistent with the distributor fuel type</p>	<p>Where generation profiles were recorded, they were consistent with the generation fuel type apart from 313 ICPs (an increase of 134 in the previous audit) where the distributor had recorded a generation fuel type of other and GENE applied PV1, and</p>

	<p>ICP 0001447794UNFFA where the distributor had recorded a generation fuel type of Wind and GENE applied PV1.</p> <p>Ten have been checked and nine are likely to have solar based on the information available.</p> <p>Non-compliance is recorded below and in section 2.1 relating to the incorrect profile for ICP 0001447794UNFFA. This ICP was present last audit.</p>
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GEOL

Review of the registry list identified 999 active ICPs with generation indicated by the distributor. The AC020, event detail, registry list and meter installation details reports were reviewed to determine compliance:

<p>Generation recorded by the distributor and an I flow register with no generation compatible profile</p>	<p>Review of the Registry LIS report confirmed that there were eight ICPs with generation recorded by the distributor and an I flow register where GEOL did not record a generation compatible profile, an increase from seven in the last audit.</p> <p>All ICPs now have the PV1 profile added, but these changes were made 141 days after the addition of the “B” flag by the distributor.</p> <p>None of these ICPs were present in the last audit.</p>
<p>Generation recorded by the distributor with no I flow register or generation compatible profile</p>	<p>Review of the registry list and meter installation details report identified four ICPs (a reduction from 38 ICPs recorded in the previous audit) where generation was recorded by the distributor, but there was no I flow register or profile compatible with distributed generation recorded.</p> <p>A review of all four ICPs confirmed that:</p> <ul style="list-style-type: none"> • none of the ICPs have “I” flow metering, • two definitely have DG installed, and • two are being investigated. <p>None of these ICPs were present in the last audit.</p> <p>This is recorded as non-compliance below and in section 2.1.</p>
<p>Generation profile recorded but no generation details recorded by the distributor</p>	<p>49 ICPs (a reduction from 52 ICPs in the previous audit) had profiles indicating generation was present, but no generation was recorded by the distributor. All of a sample of ten had settled I flow registers present and a review of all ten identified seven as having non-zero volumes being measured by the meter for the I flow register for January 2024. The other three ICPs have I flow registers present, with zero consumption recorded.</p>
<p>Generation profile recorded but no I flow register recorded or generation details recorded by the distributor</p>	<p>One ICP (a reduction from four ICPs recorded in the previous audit) has a generation profile recorded on the registry but no I flow meter register flagged. The distributor indicates DG is present.</p> <p>This is recorded as non-compliance below and in section 2.1.</p>
<p>HHR profile, Distributor indicates DG present but no “I” flow register.</p>	<p>23 ICPs have an HHR profile, and the distributor indicates DG is present, but the meter does not have an “I” flow register. I checked a sample of ten and six were confirmed as having DG present.</p>

Generation profiles inconsistent with the distributor fuel type

I checked for consistency between the distributor generation details and the profiles applied and identified 55 ICPs (an increase from 31 ICPs identified during the previous audit) with fuel type other indicated and PV1 profiles applied. Ten were reviewed and all were confirmed to have solar generation and profiles were correctly applied.

The previous audit recorded that two ICPs (1000027076BPD40 and 0002211560TGAA7) had a fuel type of wind but the profile code PV1 had been applied. ICP 1000027076BPD40 has been changed to solar but ICP 0002211560TGAA7 is still recorded as wind. Google streetview shows a large array of solar panels, as shown below.



This is recorded as non-compliance below and in **section 2.1**.

GENH

Review of the registry list identified 67 active ICPs with generation indicated by the distributor. All GENH ICPs have the HHR profile assigned, therefore no ICPs were identified with profiles inconsistent with the ICP's fuel type or distributor generation details. Review of the registry list and meter installation details report found that there were six ICPs with generation recorded by the distributor which did not have an I flow register. All of these appear on the gifting register.

Bridged meters.

GENE

Bridged meters are identified through a key word query that scans across all returned service request paperwork looking for words and phrases that indicates a meter has been bridged or bypassed. A summary spreadsheet was provided of 97 bridged meters.

GEOL

Bridged meters are identified through a key word query that scans across all returned service request paperwork looking for words and phrases that indicates a meter has been bridged or bypassed. A summary spreadsheet was provided of ten bridged meters.

Whilst the process to identify these examples is sound, non-compliance exists because quantification does not occur during the bridged period.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 6.1</p> <p>With: Clause 10.13, Clause 10.24 and 15.13</p> <p>From: 01-Jan-23</p> <p>To: 16-Nov-23</p>	<p>GENE</p> <p>Ten of a possible ten ICPs had the PV1 or HHR profiles added after the change to “B” by the distributor. The number of days ranged from 16 to 2,215 with an average of 301.</p> <p>Five ICPs of a sample of ten of a possible 23 ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>Ten ICPs did not have a settled I flow register present but were recorded with the RPS PV1 profile.</p> <p>ICP 0001447794UNFFA has a fuel type of Wind but the profile code PV1 has been applied.</p> <p>GEOL</p> <p>Eight of a possible eight ICPs had the PV1 profile added after the change to “B” by the distributor. The number of days ranged from 33 to 376 with an average of 141.</p> <p>Nine ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>One ICP did not have a settled I flow register present but was recorded with the RPS PV1 profile.</p> <p>Bridged meters</p> <p>GENE</p> <p>97 AMI meters were bridged during the audit period. While meters are bridged energy is not quantified in accordance with the code.</p> <p>GEOL</p> <p>Ten AMI meters were bridged during the audit period. While meters are bridged energy is not quantified in accordance with the code.</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		
Low	<p>The controls are rated as moderate as the controls will mitigate risk most of the time but there is room for improvement around the management of distributed generation and bridged meters.</p> <p>The audit risk rating is assessed to be low due to the small number of ICPs affected.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status

<p>We have contacted the network requesting for 0001447794UNFFA to be updated to solar generation.</p> <p>For Genesis we have contacted all customers who appear to have DG but do not have complaint metering to ensure DG is in place, and if so attempt to get complaint metering installed. If this is not possible all ICPs will be added to the gifting register and the customers advised. We are currently establishing the same process for GEOL</p>	<p>01/05/2024</p> <p>01/07/2024</p>	<p>Identified</p>
<p>Preventative actions taken to ensure no further issues will occur</p>	<p>Completion date</p>	
<p>A process has now been established for DG and will ensure customers are contacted regarding compliant metering / added to the gifting register in a timelier manner.</p>	<p>01/07/2024</p>	

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

Code reference

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

Code related audit information

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

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

The participant responsible for the metering installation must:

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

Audit observation

The NSP table was reviewed to confirm the GIPs which Genesis is responsible for, and the certification expiry date for those GIPs.

Audit commentary

Genesis is responsible for the GIPs shown in the table below.

Responsible party	Description	NSP	MEP	Reconciliation Type	Certification expiry date (NSP table)
GENE	HUNTLY	HLY2201GENEGG	GENE	GG	13 May 2024
GENE	RANGIPO	RPO2201GENEGG	GENE	GG	29 June 2026
GENE	TEKAPO A	TKA0111GENEGG	GENE	GG	6 July 2024
GENE	TEKAPO B	TKB2201GENEGG	GENE	GG	5 September 2026
GENE	TOKAANU	TKU2201GENEGG	GENE	GG	9 January 2027
GENE	TUAI	TUI1101GENEGG	GENE	GG	13 May 2024

Genesis has not made any new connections to the grid during the audit period. All grid connection points Genesis is responsible for have current certification recorded on the NSP table.

When meters are recertified, the Genesis engineer provides the updated certification details to the reconciliation manager using the NSPMTRG file.

Certification expiry dates were updated for several stations and in all cases, the notification was within the specified time.

The RM has not been notified that the MEP changed to Accucal many years ago for all metering installations.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.2 With: Clause 10.26(7)(c) From: 01-Jan-23 To: 22-Feb-24	RM was not notified that the MEP has changed to Accucal. Potential impact: None Actual impact: None 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 they mitigate risk most of the time but there is room for improvement. 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
The team responsible will ensure that the RM are made aware that Accrual are the MEP for these metering installations		01/05/2024	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	

he team responsible GIP metering have been reminded of their obligations and the need to advise the RM is there is a change of MEP	01/04/2024	
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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 reports were reviewed to determine compliance.

Audit commentary

GENE

GENE uses the HHR, RPS, PV1, and EG1 profiles for metered ICPs. The CST, NST, RPS, SST, and UNM profiles are used for unmetered load. These profiles do not rely on the use of control devices for reconciliation purposes.

GEOL

GEOL only uses the RPS, HHR, UNM and PV1 profiles, which do not rely on the use of control devices for reconciliation purposes.

GENH

GENH only uses the HHR profile, which does not rely on the use of control devices for reconciliation purposes.

Audit outcome

Compliant

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

Code reference

Clause 10.43(2) and (3)

Code related audit information

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

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

Audit observation

Processes relating to defective metering were examined. A sample of defective meters were 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, or from information provided by the meter reader, agent, the MEP, or the customer. Upon identifying a possible defective meter, a field services job is raised to investigate and resolve the defect and a consumption correction is expected to be processed if necessary.

Corrections for stopped and faulty meters are discussed in **sections 2.1, 8.1 and 8.2.**

GENE

I reviewed 23 examples of potential defective meters, including 13 bridged meters and ten stopped meters. In all cases, the MEP was advised.

GEOL

I reviewed eight examples of potential defective meters, including seven bridged meters and one stopped meter. In all cases, the MEP was advised.

GENH

No meters with defects preventing consumption from being recorded accurately were identified during the period.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.2

Code related audit information

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

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

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

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

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

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

2(6) – The interrogation systems must record:

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

Audit observation

The data collection process was examined. The table below details data collection responsibilities.

Participant	Data provided	Responsibility for data	Comments
Bluecurrent Assets NZ Limited (Bluecurrent)	HHR data	Genesis	ICPs where Bluecurrent collects the data, but AMCI is not the MEP. Bluecurrent confirmed they do not have an arrangement with the MEP to collect data.
EDMI	HHR data	Various MEPs	
Bluecurrent	AMI data	Bluecurrent as an MEP	
Bluecurrent	AMI data	ARC Innovations as an MEP	
Bluecurrent	AMI data	Smartco as an MEP	
Influx	AMI data	Influx as an MEP	
Intellihub	AMI data	Intellihub as an MEP	
Intellihub	AMI data	Counties as an MEP	
Genesis	HHR generation data	Genesis as a CRP	
Wells	Manual meter reading	Genesis as a CRP	

The agents and MEPs for Genesis are responsible for the collection of HHR and AMI data. Collection of data and clock synchronisation were reviewed as part of their agent and MEP audits.

The Genesis data collection processes for generation data were reviewed. Now that all generation meters have their own IP addresses and are interrogated each half hour the time sync process is automated and no instances of a time difference of more than five seconds was found.

Audit commentary

All information used to determine volume is collected by agents or MEPs. Agents and MEPs monitor clock synchronisation, and this is covered as part of their audits.

Clock synchronisation event information from all AMI MEPs are emailed to GENE and GEOL's billing mailboxes. The notifications include details of the ICPs affected and the time difference. The emails usually state no action is required and will ask for a metering job to be raised if a site visit/meter replacement is required. The metering team reviews the email to check if the AMI MEP is requesting a works order to replace the meter, if not, the email is archived. There were no time errors greater than 1800 seconds (one interval) where correction to data may have been required. However, I recommend a process is established to identify such examples and check whether correction is required.

Description	Recommendation	Audited party comment	Remedial action
Clock errors over 1800 seconds	Develop reporting and processes to identify and resolve corrections to data where clock errors exist over 1800 seconds for HHR ICPs.	We have established a process to improve our working of metering events. We will further investigate possible improvements regarding clock errors	Investigating

I checked clock synchronisation information from relevant MEPs and as mentioned above, there were only minor issues present.

Where an AMI meter is flagged as non-communicating on the registry, Genesis arranges for the ICP to be transitioned to a Wells manual meter reading round to ensure the billing of the customer remains accurate. This reporting is run on a monthly basis. Where the ICP is HHR, the change is made back to the last time a register read was present. The criteria for changing to a manual round is where the registry states AMI not communicating and there has been no data for ten days. This ensures changes are not made if data is still being received.

I reviewed a sample of 12 GENE and two GEOL ICPs where the submission type was HHR and where the AMI flag was "N". In 13 cases there was HHR data present and for one ICP the profile had been changed back to RPS. There were no examples where the maximum interrogation cycle had been exceeded.

GENH

The Bluecurrent agent audit report confirms compliance for clock synchronisation processes.

Generation

Genesis synchronises STARK time to the server time, and this is synchronised against an internet time source at 30-minute intervals. During interrogation, a comparison occurs between the data logger and STARK clocks. During the audit, the server time was compared to Stark time, and they were the same.

If the time differs by more than five seconds, the channels are "disabled". To correct the time, the parameters are "opened" manually to allow data to be collected, then Stark will automatically synchronise the clock. I checked recent reports and noted there were no time differences outside the threshold for meters used for submission.

Audit outcome

Compliant

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

Code reference

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

Code related audit information

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

All validated meter readings must be derived from meter readings.

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

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

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

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

Audit observation

The data collection process was examined.

Processes to provide meter condition information were reviewed as part of the Wells agent audit. The Genesis processes to manage meter condition information were reviewed, including viewing a sample of meter condition events.

With the implementation of Derive+ customer and photo reads are no longer treated as validated meter readings in the calculation of historic estimates.

GENH does not deal with NHH readings.

Audit commentary

Wells readings

The Wells data collection processes were reviewed as part of their agent audit and found to be compliant. I checked a sample of readings provided by Wells of five ICPs each for GENE and GEOL and confirmed that they are loaded initially into DRDS and then Gentrack as actual readings and are validated as part of the billing process. Derive+ also performs validation on the volume information calculated from these readings.

Wells sends meter condition information with their read files, a monthly file of missing or broken seals, and also emails Genesis with information about suspect theft soon after it is found.

- Emailed meter condition information received into the metering teams inbox is filtered into a work queue within the NEXUS application for resolution.
- For GENE the meter condition notes received within the read files are split between three teams for resolution:
 - access and difficultly finding properties is routed to the switch team for resolution,
 - meter related issues (new meter found, blank screen, broken seals etc) are routed to the metering team, and
 - all other meter condition codes are routed to the exceptions team to investigate.
- For GEOL all meter condition codes within the read files are sent to the GEOL metering team for investigation and resolution.

I reviewed a sample of meter condition events to determine whether appropriate action had been taken where appropriate.

Meter condition issue	GENE	GEOL
Different meter register present	Two examples identified. In both cases the meter had been changed and Gentrack was subsequently updated.	Two examples identified. In both cases the meter had been changed and Gentrack was subsequently updated.
Seals are not present and intact	No examples identified during audit period.	No examples identified during audit period.

Meter condition issue	GENE	GEOL
Signs of tampering or damage	Site visit requests generated and where access allows issues are rectified including volume corrections where tampering is confirmed. There was a tamper event at ICP 0000621152WEA24 which was investigated and there was no confirmation a tamper had occurred.	No examples identified during audit period.
Dials discrepancy	No examples identified during audit period.	No examples identified during audit period.
Meter digit discrepancy	No examples identified during audit period.	No examples identified during audit period.
Phase failure	Where the AMI MEPs notify a phase failure related issue via email then service orders are raised to investigate and resolve issues and a case is generated to track the issue. No volume corrections are applied once the issue is resolved. Some cases are closed before resolution resulting in outstanding actions remaining. No examples identified during audit period.	No examples identified during audit period.
Electrically unsafe	One example identified and the ICP was disconnected until the issue is resolved by the customer.	No examples identified during audit period.

It was observed that no phase failure incidents have been reported via the manual meter reading process. Wells provided correspondence indicating that phase failure information had been provided to meter readers on a regular basis. However, I still recommend additional steps are taken to be sure that phase failure is identified and remedied, given the high impact on submission accuracy:

1. Include phase failure identification in the internal audit of Wells to ensure competency is assessed and confirmed.
2. Require Wells to provide photos of all Category 2 meters.
3. Check the photos to confirm phase failure is not present.

Description	Recommendation	Audited party comment	Remedial action
Phase failure	<p>Include phase failure identification in the internal audit of Wells to ensure competency is assessed and confirmed.</p> <p>Require Wells to provide photos of all Category 2 meters.</p> <p>Check the photos to confirm phase failure is not present.</p>	Genesis will add this to the upcoming audit of Wells I&E	Identified

Customer and photo readings

Customer and photo readings are clearly identified in Gentrack. Customer readings provided through the website are recorded as “WR”, photo readings as “PH”, and customer readings provided by email or phone are recorded as “CR”.

The readings are validated as part of the data entry process:

- if website readings do not fall within the expected range based on historic consumption, they will be rejected and not recorded against the ICP, and
- other customer readings and photo readings are manually validated by the CSR prior to being entered into Gentrack, this process requires them to ensure that the reading is higher than the previous reading (unless the previous reading is estimated, and the reading looks reasonable compared to earlier actual readings) and appears reasonable based on the ICP history.

As reported in the last two audits, the “WR”, “PH” and “CR” readings are treated as “non-actual” (estimates) by the switching and billing processes and are also now not used by the reconciliation process since Derive+ was implemented.

GENE

I checked 15 examples where customers had emailed in photos of meter readings. Despite these readings passing validation and being confirmed as accurate, the Code does not allow them to be used as actual readings. In all cases these readings were classified as estimates.

GEOL

I checked 15 examples where customers had emailed in photos of meter readings. Despite these readings passing validation and being confirmed as accurate, the Code does not allow them to be used as actual readings. In all cases these readings were classified as estimates.

GENH

GENH does not deal with NHH readings.

Audit outcome

Compliant

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

Code reference

Clause 6 Schedule 15.2

Code related audit information

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

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

Audit observation

The process of the application of meter readings was examined.

Audit commentary

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 except in the case of a switch event meter reading which applies to the end of the day prior to the event date for the losing trader and the start of the event date for the gaining trader as required by this clause.

Readings relating to status event changes (“active” to “inactive” and vice versa) need to apply from the beginning of the day the status event change relates to.

All AMI systems have a clock synchronisation function, which ensures correct time stamping. Manual readings taken by Wells are applied correctly.

GENE

Application of reads was reviewed as part of the historic estimate checks in **section 12.11** and found to be compliant. The content of CS and RR files was examined in **sections 4.3, 4.4, 4.10** and **4.11** and found to be compliant.

Where an ICP switches away where the no occupier customer has not yet been set up in Gentrack, then the switch loss read applied is the last billed (final read) reading in Gentrack. If the ICP is a HHR settled AMI metered ICP the selected switch loss read provided does not align with the HHR volumes submitted up to the switch date.

I checked the overall process for NHH to HHR meter changes in relation to this clause. There were three examples, and the data was continuous in all cases. The day of the meter change is considered HHR and HHR data for the first part of the day is estimated based on the difference between the midnight read and the NHH removed read. This process is accurate but not compliant because the removed reading is not applied to the end of the day.

If an ICP is physically upgraded from category 1 or 2 NHH to category 3 or higher HHR the change is processed as a switch from GENE to GENH. GENE’s last day of responsibility is the last full day with NHH metering, and the meter removal reading is provided as the switch event reading. GENH’s first day of responsibility is the day of the meter change, with the trading periods up until the meter change being populated with zeros. Whilst this process achieves accuracy, non-compliance exists because the NHH meter reading is not applied at 2400 on the day of the reading.

Similarly, if an ICP is downgraded, it is treated as GENH HHR until the end of the day the HHR meter is removed with zeros populated for any trading periods after the meter removal. The GENE NHH period begins with the opening read on the NHH meter the following day.

If an upgrade or downgrade does not coincide with a meter change, the swap between NHH and HHR aligns with the actual volume data. Most of the upgrades and downgrades completed are for category 1 and 2 meters, which remain with GENE.

All profile changes occurred on a meter reading.

I also checked five examples of HHR-to-HHR meter changes and confirmed the HHR data was continuous for the day of the meter change.

GEOL

Application of reads was reviewed as part of the historic estimate checks in **section 12.11** and found to be compliant.

I checked the process for meter upgrades and downgrades. If an upgrade or downgrade does not coincide with a meter change, the swap between NHH and HHR aligns with the actual volume data.

Review of the event detail report did find several submission type downgrades and upgrades during the audit period. These changes did not coincide with a meter change, and I reviewed ten examples of this

process. All ten submission type upgrades and downgrades had an actual read applied for the transition date.

I also checked five examples of HHR-to-HHR meter changes and confirmed the HHR data was continuous for the day of the meter change.

GENH

GENH does not deal with NHH readings. ICPs which are downgraded are switched to GENE, as discussed in the GENE section above. Review of the event detail report confirmed that no upgrades or downgrades occurred while ICPs were supplied by the GENH participant code.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 6.7 With: Clause 6 Schedule 15.2 From: 01-Jan-23 To: 16-Nov-23	GENE NHH meter readings not applied at 2400 on the day of the meter change for upgrades to HHR. GEOL NHH meter readings not applied at 2400 on the day of the meter change for upgrades to HHR. Potential impact: Low Actual impact: Low Audit history: Multiple times Controls: Moderate Breach risk rating: 2	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are rated as moderate as there is room for improvement with switch read accuracy. The audit risk rating is low as any variances between gain read and reads sent in the CS file are addressed via the RR process initiated by the gaining trader in most instances providing the RR is accepted.	
Actions taken to resolve the issue	Completion date	Remedial action status
We are confident that our current process is accurate, however we will review this and what changes can be made to ensure compliance	01/11/2024	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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 individual unread ICPs.

Genesis has previously provided lists of ICPs not read during the period of supply, where the period of supply had ended during the audit period. For this audit, Genesis stated that all ICPs had been read during the period of supply. I therefore prepared lists of ICPs which the event detail report indicated had switched in and out on estimates, and I requested evidence of readings during the period of supply.

Audit commentary

A validated meter reading must be 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, unless exceptional circumstances prevent this from occurring. This may be a validated meter reading at the time the ICP is switched to, or from, the reconciliation participant.

The NHH meter reading frequency guidelines published by the Electricity Authority define “exceptional circumstances” as meaning “circumstances in which access to the relevant meter is not achieved despite the reconciliation participant's best endeavours”. “Best endeavours” is defined as:

“Where a reconciliation participant failed to interrogate an ICP as a result of access issues, the reconciliation participant had made a minimum of three attempts to contact the customer, by using at least two methods of communication”. The Authority has determined that a short period of supply is not an “exceptional circumstance”.

GENE

General read attainment process.

Gentrack automatically estimates ICPs which do not receive actual readings for billing. When two billing estimates in a row are applied, the no read process begins, unless the ICP is excluded from the process because it is on an AMI reading sequence, or the customer is account managed.

Under certain circumstances actual reads may not be attained, but the ICP may not have had two account estimates in a row and the read attainment process will not be triggered. This typically occurs where there are other readings between the estimated readings (such as customer readings, web readings, or photo readings), or the ICP is not in a valid meter reading route and no estimates are generated.

The no-read process is described below:

- an automated call or text is made after the second account estimate,
- a letter is issued seven days after the call or text,
- an automated call or text is made 45 days after the letter,
- a letter is issued 60 days after the second call or text,
- the ICP is added to billing queue and reviewed by a CSR, 45 days after the second letter, and
- a letter is issued 14 days after the ICP was directed to the work queue.

When the automated process is followed, the read attainment process will ensure compliance with the best endeavours requirement if the period of supply is over 114 days.

AMI read attainment process

For Bluecurrent AMI meters, Bluecurrent identifies ICPs with communication faults and send a list of proposed fault jobs to Genesis that Bluecurrent is responsible for interrogating (NGCM, ARCS) for approval and generation of a work order to undertake a site investigation. IntelliHUB provides similar reporting for AMI meters it is responsible for interrogating (IHUB, MTRX, COUP). The Genesis metering team raise fault jobs where necessary.

Where an AMI meter is flagged as non-communicating on the registry, Genesis arranges for the ICP to be transitioned to a Wells manual meter reading round to ensure the billing of the customer remains accurate. This reporting is run on a monthly basis. Where the ICP is HHR, the change is made back to the last time a register read was present. The criteria for changing to a manual round is where the registry states AMI not communicating and there has been no data for ten days. This ensures changes are not made if data is still being received.

ICPs unread during the period of supply

I selected nine ICPs which had switched in and out on estimates. Analysis of all nine found the following:

- five had readings during the period of supply.
- four did not have readings during the period of supply, and the period of supply ranged from one day to 95 days, so the best endeavours threshold was not met for these four ICPs due to the short period of supply.

GEOL

Read attainment process.

The no read process for GEOL is manual but is moving to the same process as Genesis. A work queue of unread ICPs is created. These are then worked by the relevant team dependant on what action is required to resolve the no read reason. This process includes both AMI and manually read ICPs.

ICPs unread during the period of supply

I selected 29 ICPs which had switched in and out on estimates. Analysis of all 29 found the following:

- 18 had readings during the period of supply, and
- 11 did not have readings during the period of supply, and the period of supply ranged from one day to 19 days, so the best endeavours threshold was not met for these 11 ICPs due to the short period of supply.

GENH

GENH does not deal with NHH readings.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 6.8 With: Clause 7(1) and (2) Schedule 15.2 From: 12-Jan-23 To: 01-Dec-23	<p>GENE</p> <p>Four ICPs unread during the period of supply did not have exceptional circumstances and, the best endeavours requirement was not met.</p> <p>GEOL</p> <p>11 ICPs unread during the period of supply did not have exceptional circumstances and, the best endeavours requirement was not met.</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		
Low	<p>Controls are moderate because appropriate steps are in place to obtain meter readings and the examples identified were all due to a short period of supply.</p> <p>The impact on billing and settlement is considered to be minor because a small number of ICPs are affected, and the period of supply is generally short.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We have made great progress in relation attaining meter readings and the processes we have in place to ensure we make best endeavors to obtain a reading. However, for ICPs that are only with us for a short period this is very hard to achieve, we will continue to look for ways to further improve our processes and compliance</p>		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
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 the months of April to September 2023 were provided. I reviewed the sample of reports to ensure they met the report requirements and were submitted on time.

A sample of ICPs not read in the previous 12 months were reviewed for each code to determine whether reasonable endeavours were used to attain reads, and if 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.

GENE provides the meter reading frequency reports to the Market Administrator for GENE and GEOL. Report submissions for April to September 2023 were reviewed for GENE and GEOL, which confirmed that the reports were submitted on time and contained the required fields.

GENE

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
Apr-23	247	125	545	97.03%
May-23	257	133	710	96.98%
Jun-23	255	131	698	96.96%
Jul-23	254	129	643	97.14%
Aug-23	256	129	649	97.02%
Sep-23	253	121	6.2	97.15%

The total percentages read are similar to the results found in the previous audits.

I reviewed a diverse sample of 14 ICPs not read in the 12 months ending in the months recorded above, including one ICP for each of GENE's unread reason codes. The ICPs were checked to determine whether exceptional circumstances exist, and if GENE had used their best endeavours to obtain readings:

- for eight ICPs, the best endeavours requirement was met, or exceptional circumstances existed, and
- for six ICPs no contact with the customer has been attempted in the last 12 months; two are vacant sites where recent disconnection activity was also unsuccessful.

GEOL

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
Apr-23	158	55	152	97.25%
May-23	162	74	245	96.31%

Month	Total NSPs where ICPs were supplied > 12 months	NSPs <100% read	ICPs unread for 12 months	Overall percentage read
Jun-23	163	74	243	96.26%
Jul-23	162	71	243	96.13%
Aug-23	160	67	236	96.08%
Sep-23	160	61	221	96.13%

The total percentages read are similar to the results found in the previous audits.

I reviewed a diverse sample of 11 ICPs not read in the 12 months ending in the months recorded above, including at least one ICP for each of GEOL's unread reason codes. The ICPs were checked to determine whether exceptional circumstances exist, and if GEOL had used their best endeavours to obtain readings:

- for eight ICPs, the best endeavours requirement was met, or exceptional circumstances existed, and
- for three ICPs no contact with the customer has been attempted in the last 12 months; two are vacant sites where recent disconnection activity was also unsuccessful.

GENH

GENH does not deal with NHH readings.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 6.9</p> <p>With: Clause 8(1) and (2) Schedule 15.2</p> <p>From: 12-Jan-23</p> <p>To: 01-Dec-23</p>	<p>GENE</p> <p>Six of a sample of 14 ICPs unread in the 12 months ending during the audit period, did not have exceptional circumstances and the best endeavors requirement was not met.</p> <p>GEOL</p> <p>Three of the sample of 11 ICPs unread in the 12 months ending during the audit period, did not have exceptional circumstances and the best endeavors requirement was not met.</p> <p>Potential impact: Low</p> <p>Actual impact: Low</p> <p>Audit history: Multiple times</p> <p>Controls: Strong</p> <p>Breach risk rating: 1</p>
Audit risk rating	Rationale for audit risk rating

Low	Controls are strong as the process to manage unread ICPs has been improved during the audit period with most ICPs being identified or actioned. The main issue is Spark sites where access has not yet been granted. The impact is low, because overall read attainment rates are reasonably high.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have made great progress in relation attaining meter readings and the processes we have in place to ensure we make best endeavors to obtain a reading. We are confident that the additional processes we have established has strengthened our controls		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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 April to September 2023 were provided. A sample of ICPs not read in the previous four months at NSPs where less than 90% of ICPs were read were reviewed to determine whether exceptional circumstances existed and if Genesis had used their best endeavours to obtain readings.

Audit commentary

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

GENE

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
Apr-23	253	98	2350	89.44%
May-23	268	112	3358	88.28%
Jun-23	266	124	3602	87.07%
Jul-23	265	135	3638	86.67%
Aug-23	265	90	2536	90.30%
Sep-23	264	107	2687	89.33%

The percentages read are consistent with the results found in the previous audit.

I reviewed a diverse sample of 15 ICPs connected to NSPs where compliance was not achieved in the months mentioned above to determine whether exceptional circumstances exist, and if GENE had used their best endeavours to obtain readings. I found that best endeavours requirement was not met, and exceptional circumstances did not exist for five ICPs.

GEOL

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
Apr-23	159	75	686	88.20%
May-23	165	87	1013	85.81%
Jun-23	166	102	1047	84.89%
Jul-23	164	103	1117	83.63%
Aug-23	164	79	796	87.76%
Sep-23	161	86	798	86.97%

I reviewed a diverse sample of 13 ICPs connected to NSPs where compliance was not achieved in the months mentioned above to determine whether exceptional circumstances exist, and if GENE had used their best endeavours to obtain readings. I found that best endeavours requirement was not met for six ICPs, and exceptional circumstances did not exist.

GENH

GENH does not deal with NHH readings.

Audit outcome

Non-compliant

Non-compliance	Description		
<p>Audit Ref: 6.10</p> <p>With: Clause 8(1) and (2) Schedule 15.2</p> <p>From: 01-Feb-23</p> <p>To: 31-Jan-24</p>	<p>GENE</p> <p>Exceptional circumstances did not apply, and the best endeavours requirement was not met for five of the 15 ICPs sampled.</p> <p>GEOL</p> <p>Exception circumstances did not apply, and the best endeavours requirement was not met for six of 13 ICPs sampled.</p> <p>Potential impact: Low</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		
Low	<p>Controls are rated as moderate as while the no read process is operating for non-account managed ICPs, the account managed ICPs are still taking too long to resolve where the relationship between Genesis and the customer should not prevent access or read attainment.</p> <p>The impact is low, because overall read attainment rates are reasonably high.</p>		
Actions taken to resolve the issue		Completion date	Remedial action status
<p>We have made great progress in relation attaining meter readings and the processes we have in place to ensure we make best endeavors to obtain a reading. We are confident that the additional processes we have established have strengthened our controls, however for NSPs where we do not hold many NHH ICPs it is extremely hard to meet this obligation. We believe this has minimal impact as around 93% of our total ICPs are HHR and around 89% of the 7% that are NHH have had a validated meter read in the last 4 months.</p> <p>We believe that this obligation should be reviewed, and that customer reads that are backed up with a photo should be classed as actual reads, this will help further increase the interrogation rates.</p>		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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 Bluecurrent and Wells. The data interrogation log requirements were reviewed as part of the agent and MEP audits.

Audit commentary

GENE and GEOL

Compliance with this clause has been demonstrated by Bluecurrent and Wells as part of their own audits.

GENH

GENH does not deal with NHH readings.

Audit outcome

Compliant

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

Code reference

Clause 11(1) Schedule 15.2

Code related audit information

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

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

Audit observation

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

Generation data is sourced from the services access interface as required by the Code.

Audit commentary

GENE, GEOL and GENH

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

Generation

Generation data is sourced from the services access interface as required by the Code.

Audit outcome

Compliant

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

Code reference

Clause 11(2) Schedule 15.2

Code related audit information

The following information is collected during each interrogation:

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

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

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

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

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

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

Audit observation

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

Generation data is collected by Genesis using their Stark system and the requirements of this clause were checked.

Audit commentary

GENE, GEOL and GENH

Compliance with this clause has been demonstrated by Bluecurrent and EMS as part of their agent audit. The non-compliance recorded in the EMS agent audit for event logs not being reviewed for two manual downloads has not recurred and was detailed in the previous Genesis audit report.

Generation

Compliance with this clause has been demonstrated by Genesis for generation metering.

Audit outcome

Compliant

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

Code reference

Clause 11(3) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

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

Generation data is collected by Genesis using the Stark system. The interrogation log was checked as part of the audit.

Audit commentary

GENE, GEOL and GENH

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

Generation

Compliance with this clause has been demonstrated by Genesis for the Stark system.

Audit outcome

Compliant

7. STORING RAW METER DATA

7.1. Trading period duration (Clause 13 Schedule 15.2)

Code reference

Clause 13 Schedule 15.2

Code related audit information

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

Audit observation

Trading period duration was reviewed as part of the MEP audits, and the Bluecurrent agent audit.

The Genesis clock synchronisation process for generation meters was reviewed.

Audit commentary

GENE, GEOL and GENH

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

Generation

The clock synchronisation process for generation meters is discussed in **section 6.5**.

Audit outcome

Compliant

7.2. 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 during the agent and MEP audits. I checked that meter readings cannot be modified without an audit trail and viewed archived meter reading data.

Audit commentary

Compliance with this clause has been demonstrated by the MEPs and agents.

GENE and GEOL

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

All meter reading data is archived and retained for over 48 months. GENE and GEOL meter read data from 2019 was sighted during the audit.

GENH

Bluecurrent demonstrated compliance with this clause as part of their agent audit.

Generation

Generation data is stored indefinitely and can only be accessed by a small number of approved people with access rights. I viewed data from 2019 to confirm it is retained.

Audit outcome

Compliant

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

Code reference

Clause 21(5) Schedule 15.2

Code related audit information

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

Audit observation

Processes to record non-metering information were discussed.

Audit commentary

GENE

EMS collects unmetered data in relation to streetlights as GENE's agent, and this information is appropriately archived. Compliance is confirmed in the EMS agent audit report.

I confirmed that GENE retains data logger and DUML database information indefinitely and viewed DUML database information from 2019.

GEOL, GENH, and Generation

No non-metering information is collected.

Audit outcome

Compliant

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

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

Code reference

Clause 19(1) Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

Processes for the correction of NHH meter readings were reviewed. Corrections to volumes where meter readings match the value recorded by the meter, such as where a multiplier is incorrect, a meter is defective or bridged, or inactive consumption is identified were reviewed in **section 2.1**.

Audit commentary

Processes for the correction of NHH meter readings were reviewed. Corrections to volumes where meter readings match the value recorded by the meter, such as where a multiplier is incorrect, a meter is defective or bridged, or inactive consumption is identified were reviewed in **section 2.1**.

Audit commentary

Where errors are detected during the Gentrack validation process, Genesis may request a check meter reading for meters read by Wells, or review AMI readings for surrounding dates. If an original meter reading cannot be confirmed it is invalidated and ignored by the billing and reconciliation processes. A system estimate will be created for billing if necessary.

Sometimes a customer may provide their own read for a scheduled billing date that is received and validated and billed as a customer read, prior to the receipt of the scheduled actual meter read from the meter reader. In these cases, the scheduled actual read is compared to the customer read and if it is determined that the customer read already billed on is still accurate the actual meter read is noted in Gentrack Installation notes and no billing/read reversal occurs. This approach to managing customer expectation/impacts of bill reversals does have a small flow on impact to meter read frequency reporting as some actual reads received by Genesis are not used.

When back billing is completed by the billing team, they normally advise the reconciliation team. The reconciliation team checks the correction is appropriately apportioned by invalidating previous readings where necessary. In the event that the reconciliation team is not notified, the readings will still automatically flow from Gentrack to Derive+ each evening. The Genesis policy around historic volume corrections are that they are only calculated and apportioned for the previous 14 months to align with the revision window. Where an error has been detected for a longer period of time, only a subset of the

correction is applied. This matter was discussed with the Electricity Authority, and it has been determined that there is not an expectation that consumption outside the 14-month window will be “squashed” into 14 months.

Transposed meters are corrected by removing and reinstalling the registers correctly in Gentrack or swapping the readings to the correct registers. No examples were identified during the audit period, but the process was discussed, and it achieves accurate outcomes. If it's determined the meter reader has made an error, this is passed to Wells for inclusion in their quality control follow ups.

The reconciliation process retrieves and uses reads from sources other than Gentrack. Additional reads are retrieved from the Meter Reads database for vacant ICPs, CS files for where a switch out has occurred on ICPs where no consumer is set up in Gentrack and the switch date does not align with a billed read date. Month end AMI reads are retrieved from the AMI read database (DRDS) for all communicating AMI NHH settled ICPs. AMI meter reads are also retrieved as part of the profile changes from NHH to HHR and vice versa via the respective bulk update processes. Derive+ performs its own validations of meter reads prior to these being used for NHH submission. The Derive+ validation process was reviewed as part of this audit.

Audit outcome

Compliant

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

Code reference

Clause 19(2) Schedule 15.2

Code related audit information

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

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

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

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

Audit observation

Processes for correction of HHR meter readings were reviewed:

- Genesis completes its own HHR corrections for GENE and GEOL using MSD,
- Bluecurrent completes HHR corrections on behalf of GENH as an agent; compliance was assessed as part of their agent audit report, and
- Genesis completes generation corrections based on information provided by its engineers.

Audit commentary

Processes for correction of HHR meter readings were reviewed:

- Genesis completes its own HHR corrections for GENE and GEOL using MSD,
- Bluecurrent completes HHR corrections on behalf of GENH as an agent; compliance was assessed as part of their agent audit report, and

- Genesis completes generation corrections based on information provided by its engineers.

Audit commentary

GENE and GEOL

If an error is detected during validation of HHR data, and check metering data is not available, then data from a period with a quantity and profile like that expected is to be used.

Where an AMI ICP stops communicating and the AMI MEP reflects this on the registry the ICP continues to be submitted as HHR until it is determined that the profile needs to be changed to RPS. These exceptions are now checked monthly, which is more often that they were during the last audit. The change back to RPS is made back to the time the meter stopped communicating.

I checked 15 multiplier corrections and found that the meters were all category 2, and the multiplier correction was appropriately applied to the HHR volumes.

I checked six bridged meter corrections for HHR ICPs and found that three ICPs were notified to the reconciliation team and the volume correction was applied across the affected interval data. The other three did not have correction conducted for the following reasons.

ICP	Bridge start	Bridge end	Comments
0000001087UN7C6	29 April 2023	8 May 2023	Switched out on 17 May 2023 prior to the collection of ten days of data to calculate the correction.
1001285319UN332	25 September 2023	25 September 2023	Switched out on 9 September 2023 prior to the collection of ten days of data to calculate the correction.
0005341124RN775	5 May 2023	10 July 2023	Notification was not made to the reconciliation team to invalidate reads to enable submission.

Further checks during the audit show that in recent months, the notifications to the Reconciliation team are being consistently sent. An additional control has been implemented, which is that the Reconciliation team will have access to the bridged meter reporting, and a monthly list will also be sent of all bridged or stopped meters to ensure they have also been corrected for submission.

Three stopped meter examples were reviewed. All three were confirmed as defective meters and the meter was replaced. Two ICPs had volume corrections applied both in Gentrack and Derive+. ICP 0000027221UN85C did not have a correction conducted for the entire period. The corrections needed to be for NHH up until the end of February 2023 (72 days) then HHR for the 1st to the 23rd of March 2023. The HHR correction was conducted but not the NHH correction. This is recorded as non-compliance in **sections 2.1, 12.2 and 12.7**.

I checked 20 HHR corrections and confirmed the calculations, labelling and journals were all compliant.

During the Bluecurrent ATH audit, I found that the certification report for ICP 0000039817UN400 stated that all meter potential fuses had blown. This matter had not been notified to Genesis. I recommend Genesis requests a “statement of situation” from the MEP (Bluecurrent) and conducts a correction if required. The consumption for the period February 2023 to April appears to be approximately two thirds lower than expected.

Description	Recommendation	Audited party comment	Remedial action
Phase failure	Request Bluecurrent MEP to provide a statement of situation for ICP 0000039817UN400, where the certification report indicated phase failure had been identified.	A request has been sent to Bluecurrent regarding this ICP	Identified

I checked the meter change processes, including NHH to HHR, HHR to NHH and HHR to HHR. In all cases the data was continuous for the day of the meter change.

GENH

Where errors are detected during validation of half-hour metering information, and check metering data is not available, then data from a period with a quantity and profile like that expected is to be used. This function is carried out by Bluecurrent on behalf of GENH, and compliance is confirmed in their audit report. Ten examples were checked, and they all appear to be compliant.

Generation

Estimates and corrections occur rarely for generation data. Where these are required, the correction is performed by a Genesis engineer. An appropriate audit trail is kept, and the trading periods are recorded as estimates. Only the “copy” channel can be edited not the “main” channel. No corrections were identified during the audit period.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 8.2 With: Clause 19(2) Schedule 15.2 From: 01-Feb-23 To: 31-Jan-24	Corrections not made for three bridged HHR meters. Potential impact: Medium Actual impact: Low Audit history: Twice Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	The controls have recently been strengthened to ensure all corrections flow through to submission. The controls are recorded as strong. There are only a few ICPs/meters where corrections are not fully resolved for HHR volumes, therefore the audit risk rating is low.		
Actions taken to resolve the issue		Completion date	Remedial action status
We are confident that we have strong controls in place to manage this and that these will be further strengthened as part of our upcoming billing platform upgrade		TBC	Identified

Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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

Code reference

Clause 19(3) Schedule 15.2

Code related audit information

A reconciliation participant may use error compensation and loss compensation as part of the process of determining accurate data. Whichever methodology is used, the reconciliation participant must document the compensation process and comply with audit trail requirements set out in the Code.

Audit observation

Error and loss compensation arrangements were discussed.

Audit commentary

Genesis does not deal with any loss and compensation arrangements. If a compensation arrangement was in place, this would be identified through the load check process employed at the time of certification or recertification.

Audit outcome

Compliant

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

Code reference

Clause 19(4) and (5) Schedule 15.2

Code related audit information

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

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

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

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

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

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

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

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

Audit observation

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

Raw meter data retention was reviewed as part of the Bluecurrent and Wells agent audits. And also MEP audits relating to AMI data for Bluecurrent (NGCM, SMCO, ARCS), IntelliHUB (MTRX, IHUB, COUP) and Influx (FCLM).

Audit commentary

NHH and HHR raw meter data is held by Wells and Bluecurrent, and their audits confirm that it cannot be edited.

Compliance with this clause has been demonstrated by the AMI MEPS.

GENE and GEOL

I reviewed audit trails and supporting calculations for HHR and NHH data corrections and noted that they were compliant with the requirements of this clause for the sample of corrections checked.

GENH

The Bluecurrent report confirms compliance.

Generation

Stark contains a compliant audit trail, and all users have individual logins. Generation raw meter data is not edited. Only the copy channel can be edited.

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 the Genesis 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 **sections 8.1, 8.2** and **9.4**.

Audit commentary

GENE

Readings are clearly identified as required by this clause. All readings sampled were correctly classified.

GEOI

Readings are clearly identified as required by this clause. All readings sampled were correctly classified.

GENH

The Bluecurrent audit report confirms compliance with this clause.

Generation

In the rare event that generation data is estimated or corrected, there is an appropriate audit trail, and the data is correctly identified.

Audit outcome

Compliant

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

Code reference

Clause 3(4) Schedule 15.2

Code related audit information

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

3(4)(a) - validated meter readings,

3(4)(b) - estimated readings,

3(4)(c) - permanent estimates.

Audit observation

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

Audit commentary

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

Audit outcome

Compliant

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

Code reference

Clause 3(5) Schedule 15.2

Code related audit information

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

Audit observation

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

NHH data is collected by Bluecurrent and Wells, and HHR data is collected by Bluecurrent. Generation data was checked during the audit.

Audit commentary

The MEPs and agents retain the raw, unrounded data. Compliance with this clause has been demonstrated by the Genesis agents and MEPs as part of their own audits.

GENE and GEOL

The Bluecurrent and EMS agent reports record compliance.

AMI data is truncated on import into Derive+.

Manual meter readings do not record decimal places and are not rounded or truncated on import into Derive+.

GENH

The Bluecurrent audit report confirms compliance for GENH.

Generation data

A sample of generation data was checked during the audit and found that Stark captures data to two decimal places using a unit of measure of kWhx10 (example: measured volume is 7.25 kWh which is saved as 0.73 in the Stark 'kWhx10' channel). This means that this volume information is already rounded to two decimal places prior to the creation of the submission information. In most instances the volume information comes from a single bus metering channel, so the impact of this rounding is zero unless generation data is aggregated outside of Stark.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 9.3 With: Clause 3(5) of schedule 15.2 From: 01-Feb-23 To: 07-Mar-24	Some data collected by Stark is rounded when collected from the metering installation. AMI meter reading data is truncated for import into Gentrack and Derive+. Potential impact: Low Actual impact: Low Audit history: Twice previously Controls: Moderate Breach risk rating: 2		
Audit risk rating	Rationale for audit risk rating		
Low	The controls are moderate. Only AMI meters which are settled as NHH are affected by meter readings being truncated in Derive+. The impact is assessed to be low. Only NHH settled AMI readings provided with decimal places are affected, and the overall kWh difference is expected to be small.		
Actions taken to resolve the issue		Completion date	Remedial action status
The processes regarding AMI data being truncated will be reviewed as part of the upcoming billing platform upgrade. The Stark rounding issue will be investigated by the relevant business unit		TBC	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
As Above			

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

GENE creates HHR estimates for GENE ICPs using MSD. The HHR estimation process was examined, including review of a sample of estimates and technical documentation on the HHR estimation process.

Bluecurrent completes HHR estimation on behalf of GENH, their estimation processes were reviewed as part of their agent audit.

The generation estimation process was reviewed.

Audit commentary

GENE and GEOL

Bluecurrent (NGCM, SMCO, ARCS) and Influx (FCLM) provide null values where actual HHR data is not available. Estimates are automatically created in MSD based on the available interval consumption and midnight read data. IntelliHUB (COUP, MTRX, IHUB) provide HHR estimates where an AMI meter has an unsuccessful data interrogation and MSD strips these estimates out of the data file and performs its own estimation of a gap or missing data.

Estimates are replaced with actual data if it becomes available at a later date. Estimates are recalculated prior to each revision submission to ensure that they are calculated based on the best information available.

- Where midnight readings are available and some trading periods are missing, MSD calculates the total value of the missing trading periods, and profiles the consumption based on an average of the same interval, and day of the week for the previous four weeks (Back Proportional Average – BPA), or the next four weeks if this information is available (Proportional Average – PA).
- Where there is insufficient consumption available either prior to the missing HHR interval or post this affected period, then using the difference calculated between the midnight reads apportions this volume using a straight-line methodology.
- Where midnight readings are not available, the MSD estimates will be based on the average of the AMI consumption for the same day of week and interval for the ICP. The time period to use for the estimates is different when calculating estimates during month zero processing to the washup processing. The estimate time period used is:
 - for the month zero processing the estimate time period is all days in the same calendar month as the interval being estimated, and
 - for the washup processing the estimate time period is all days in the same calendar month as the interval being estimated plus the previous month and the following month.
- Where midnight readings are not available and there is insufficient history to estimate average consumption, 0.5 kWh per trading period (24 kWh per day) is applied.
- As part of each revision each estimation is recalculated by MSD to ensure the best available HHR data is used for estimation replacing many of the previous straight-line and default estimations.

I reviewed a diverse sample of 20 HHR estimates using a variety of estimation methods and confirmed the requirement to use reasonable endeavours to ensure estimates were accurate was met.

The previous audit report recorded that where HHR settled ICPs require an extended estimation while a communication fault is being investigated the accuracy of the ongoing estimations reduces as MSD runs out of viable historic consumption patterns and then moves to the default 0.5 kWh per trading period method. When this scenario occurs then reasonable endeavours may not apply in terms of estimation accuracy as the correct treatment is to either arrange for regular manual downloads of the AMI meter or transition the ICP back to NHH submission as soon as practicable. The Genesis approach is for the ICP to be initially transitioned to manual meter reading and where reads are obtained then shaped estimations will continue to be applied until a decision is made to transition the ICP back to NHH submission. Genesis applies this approach to ensure all efforts to resolve communication issues are exhausted so as to reduce the instances where an ICP transitions back and forth to HHR submission type because of intermittent communications with the AMI meter.

The previous audit report recommended that Genesis increase the frequency of reviewing ICP suitability for HHR submission and the transition of non-communicating AMI meters to NHH settlement. This review is now occurring monthly; therefore, I have determined that the best endeavours threshold has been met in terms of accuracy.

I checked the March 2023 R7 HHR aggregates file for ICPs with default consumption of 744 (0.5 kWh per interval *48 intervals * 31 days) and only found one ICP, which confirms that more regular monitoring of ICPs without readings is being conducted. The ICP in question was changed back to NHH in May 2023.

GENH

When Bluecurrent, on behalf of GENH, has not received data prior to the deadline for providing submission information, then estimated data is provided. There is a requirement to use “reasonable endeavours” to ensure this data is accurate to within 10%.

Each ICP with missing data is reviewed individually to determine the consumption pattern and identify a period of similar consumption. If consumption during the same weekday and trading period is similar, the “autofill” function is used to create an estimate. Otherwise, estimated data is copied and pasted from a similar day and trading period, taking into account the season, day of week and any public holidays. Where there is less than two weeks of history available, Bluecurrent does not usually create an estimate and provides data in the first revision after it becomes available.

Generation

Estimates are rarely required for generation metering data because check metering data can be used if required. I checked three estimations where power outages or shutdowns had occurred. The estimations were provided by a Genesis engineer. An appropriate audit trail is kept, and the trading periods are recorded as estimates. Only the “copy” channel can be edited not the “main” channel.

There were no examples of generation estimates identified during the audit period.

Audit outcome

Compliant

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

Code reference

Clause 16 Schedule 15.2

Code related audit information

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

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

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

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

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

Audit observation

I reviewed and observed the NHH data validation process, including:

- checking a sample of data validations, including emails, work queues, and reports used in the validation process,

- viewing process guides for billing validations, and
- viewing vacant cycle flow charts.

Audit commentary

GENE and GEOL

NHH data is validated by several processes.

Meter reader checks

For non-AMI reads collected by Wells, the handheld data input devices perform a localised validation to ensure that the reading is within expected high-low parameters. Readings outside these parameters must be re-entered and acknowledged by the data collector. A meter cannot be skipped without reading unless a reason is entered.

Wells is required to identify issues which may affect metering information accuracy, such as stopped or damaged meters, and report this information to GENE. This is discussed further in **section 6.6**.

Read validation.

Gentrack validates meter readings used in the billing process using a multiple step validation process.

1. MRI (import) validations are completed when the readings are uploaded, and check that the reads are provided for the correct registers and are consistent with the number of dials recorded. Any issues found through this process are investigated and corrected.
2. IBP (invoice request maintenance) validations occur once the readings have been uploaded and check the readings against set criteria. Any readings which fail validation generate exceptions, which are emailed to a shared mailbox and added as a queue item, which is investigated and either validated or not validated. Reads that are validated are available for billing and reconciliation and reads that are not validated are not.

The validations are grouped into categories and prioritised as critical (e.g., import of read files, and mass production of invoices), same day, or 48-hour. Validations within the groups are classified into easy (e.g., short day invoice), moderate (e.g., credit consumption on a read-to-read period, out of cycle reads) or difficult (e.g., high first invoice, high invoice) based on the amount of time and effort expected to investigate and resolve the exception.

Each user's work queue is activated for all exception types they have been trained for. Exceptions are assigned one by one based on the priority order, as a user disconnects from a queue item, they will be assigned the next highest priority queue item that they are trained to complete. If a validation cannot be completed because further work is required, it can be requeued and will reappear after 48 hours.

Derive+ consumption validations.

Not all reads are used in the NHH submission process as provided by Gentrack to Derive+. Unvalidated meter reads for vacant ICPs where no occupier consumer has been set up are retrieved by Derive+ from DRDS. Switch loss estimate reads for vacant ICPs are retrieved from the respective CS files. Month end midnight reads are provided from DRDS for all communicating AMI meters being settled as NHH. AMI meter reads are also retrieved as part of the profile changes from NHH to HHR and vice versa via the respective bulk update processes.

The Derive+ validation process undertakes three key validations:

- **Dial Roll-over** – looks for scenarios where a read roll over has occurred where the daily average exceeds 30 kWh per day to identify likely misreads/transposed meters/registers or where the switch gain read is lower than the most recent received reading by Genesis,
- **Trend Validation** – reads are validated on import into Derive+, by comparing the normalised consumption calculated by Derive+ to a seasonally adjusted upper and lower limit calculated for

each ICP; if there is insufficient ICP history to enable the comparison, data is compared to an average value calculated across all ICPs, and

- **ICP volumes over 5,000 kWh** – all ICPs where the volume for the consumption period exceeds 5,000 kWh the ICP is placed on hold for individual review; the Reconciliation team reviews all ICPs over 10,000 kWh and releases any ICP where the high volume can be explained (the Reconciliation team attempts to work through the hold list down to 5,000 kWh where time and resources permit).

Any ICP/meter/register that does not pass any of these Derive+ validation steps is quarantined as part of an 'on holds' list where one of the Reconciliation team must review and then manually release the read for submission purposes or remove any invalid reads and trigger an appropriate forward estimate.

This enables these reads to be used for the Historic Estimate calculation of volumes.

The Gentrack billing validations relevant to the scope of this audit include:

Code	Description	Action
GBR0002	Read lower than previous actual or estimate reading.	<p>If the difference is less than 1 kWh the exception is approved, and other exceptions are reviewed and either validated or not validated.</p> <p>All reads which are 100 kWh lower than a final read, or 200 kWh lower than a gain read are required to be investigated and corrected. Switch gain read issues are referred to the switching team for resolution.</p> <p>Reads may fail billing validations if generation volumes offset load. I saw examples of ICPs with solar installed without EG metering which had low or negative consumption. In some cases, the Billing team had not investigated to determine that generation was installed and had requested check meter readings.</p>
GBR0014	Out of cycle reads	Out of cycle readings are reviewed.
GB0017	Transaction creation mismatch	This exception identifies ICPs where there is a discrepancy in ICP and customer information, indicating that the brand may not be recorded correctly. Discrepancies are reviewed and resolved.
GDR0052 GBR0053	High dollar bill High first bill	The high bill exceptions identify invoices over \$900 for residential customers and \$5000 for commercial customers, which are checked to confirm they are correct.
GBR0003	No read loaded	<p>An exception is generated where a read is expected for billing and has not been loaded. This typically occurs where a dual fuel customer has only received a read for one fuel type, or AMI readings have not been provided for all of the ICP's meter registers.</p> <p>These exceptions are investigated, and action is taken as required, such as loading AMI readings where available for a nearby date or raising a field services job where a meter cannot be read due to a meter issue.</p>
GBR0011	No meters on metered sequence	This exception identifies ICPs with no billable registers, which are typically withdrawn switches where metering has not been reopened. These exceptions are reviewed and referred to the switching team as needed.

Code	Description	Action
GBR0023 GBR0096	Incorrect previous read date or read	This exception identifies ICPs where the previous read or read date in Gentrack does not match the last billed read. This can occur where invoices have been reversed and rebilled, or a customer has provided a customer reading since the last invoice. Exceptions are checked and resolved.
GBR0092	Not current retailer	This exception identifies ICPs where GENE or GEOL are not the current retailer, which are checked. Typically, this occurs where a customer has switched out, or a switch has been withdrawn.
GEN0017	Short day invoice	This exception identifies any invoice periods which are ten days or less. This is most commonly caused by an actual read being received after an invoice has been estimated, and any exceptions are checked.
GBR0020	Disconnected register with consumption	This exception identifies any ICPs with disconnected consumption. It has been made a warning rather than a failure, and the system does not require the exception to be reviewed and actioned before the ICP can be billed. If an affected ICP is vacant, billing may assign the queue item to another team for further investigation.

The previous audit report recorded that the structure of the High dollar bill validation (GDR0052) is very binary in that there is a single upper level ICP threshold per customer type (Residential/business). The \$900 threshold for residential and \$5,000 are applied to all ICPs irrespective of whether they are low or standard user or metering installation category 1 or 2 which can mean some misreads can get missed initially until they appear next billing cycle as a negative consumption exception. Additionally, being a financial threshold as energy rates increase the overall validation threshold reduces over time. Also, there is no recognition of AMI reads in the validation process, where the risk of a misread due to human error is eliminated, therefore AMI reads can potentially be subject to a different set of validation thresholds to reduce the occurrence of false positive exceptions being identified. Given the new system implementation is going to change the validation settings, I have not repeated this recommendation, because it's unlikely Gentrack or Derive+ will undergo significant change in the short term.

Vacant consumption

A vacant disconnection process is followed for vacant ICPs, and I confirmed that consumption is submitted for vacant ICPs where Derive+ is able to retrieve a meter read from Gentrack as described in **section 12.2**.

A letter is sent to the occupier on the day after the ICP becomes vacant. If there is no response a second letter is sent advising that the electricity supply will be disconnected within seven days if the customer does not sign up with Genesis or another retailer. A second letter is sent seven business days after the first for residential AMI meters, 14 days after the first for residential non-AMI meters and 20 business days after the first for business meters.

If a vacant disconnection fails or there is a high bill for a vacant ICP, investigation will occur to determine who is responsible for the charges. These are passed to the one revenue assurance analyst to get the customer either to sign up, or the customer switches away. Where the ICP does switch away the CS file will include the move out read as the switch out read/estimate even if a scheduled meter read has been received since the move out. Where the ICP is settled as HHR this does create a mismatch between the consumption submitted as HHR compared to the register reads used in the switch process.

The vacant report/process generates automated emails that are uploaded into the NEXUS work management tool which creates work queues that track the progress of tasks and where the exceptions team updates the status as each exception is worked.

Zero consumption

The last audit recorded the process where a daily report was run in Gentrack to identify meters with zero consumption for more than six months. The report was filtered to remove ICPs where zero consumption was expected, and a work queue item was loaded into the interaction client for the remaining meters with task type “RA.Stopped.Meters”. This process is now being worked on by the Exceptions team. This is now resulting in consumption being submitted where an adjustment/correction is being applied in Gentrack by adjusting the removed read of the faulty meter – however not all stopped/faulty meters have corrections applied, as recorded in **sections 2.1. 8.2 and 12.7.**

Potential stopped and/or faulty meters may also be referred to revenue assurance for investigation and correction.

Disconnected ICPs with consumption

This process was reviewed and all disconnected ICPs with consumption detected between two validated actual reads within the inactive period investigated. The report does not currently consider the disconnection read in the detection of consumption. The reason why disconnection reads are not used is due to the proportion of disconnection reads being estimated as opposed to actual reads being retrieved and applied within Gentrack. In many cases a suitable disconnection/reconnection read is available either in the notes of the work request or available in the AMI meter read table. However, these reads are not consistently used.

I repeat last year’s recommendation that Genesis looks at ways to improve the capture of disconnection/reconnection reads to improve the accuracy of the inactive consumption monitoring process and enable more timely intervention where inactive consumption occurs.

Description	Recommendation	Audited party comment	Remedial action
Improve disconnection read capture.	Change data capture processes around disconnections and reconnection to retrieve actual reads from either the AMI meter read tables or the work requests to improve the accuracy of the inactive consumption report.	We will investigate possible improvements regarding AMI disconnections. In relation to manual disconnections the safety of the contractor is our number 1 priority and disconnection reads are not always possible	Investigating

At the time of the audit there were 5,394 ICPs identified where consumption identified is greater than 1 kWh with a volume of “inactive consumption” of over 764,566 kWh. These are being worked through with the higher volume records being investigated first. The oldest exception is from 1991.

Some exceptions on the “inactive consumption” report are false positives as the report uses Gentrack as its source of connection status. Where an ICP switches away from Genesis while “inactive” then where the ICP switches back to Genesis the report retrieves both the last actual read from the previous Genesis tenure and also considers the entire switched period as “inactive” resulting in a false positive exception. The previous audit report recommended changes to this reporting to improve accuracy. During the audit I checked 20 ICPs and found they were all appropriately resolved, therefore I have not repeated the recommendation, given the new system will have a different set of reports designed to give accurate information.

Inactive consumption may also be referred to revenue assurance for investigation and correction. Where the cause of the inactive consumption exception is due to a meter reader misread, the invalid meter read is not corrected within the meter read database but only in Gentrack. As the source of meter reads for the inactive consumption report is the meter reads database the exception remains as an ongoing false positive exception to be excluded. This means that if the ICP does genuinely start consuming there is a risk that it will not be investigated.

MSD validations

Further consumption validation occurs within MSD, as described in **section 12.3**.

GENH

GENH does not deal with NHH data.

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 meter and data storage device event list. Any event that could have affected the integrity of metering data must be investigated.

Audit Observation

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

The Bluecurrent agent audit report was reviewed.

Audit commentary

GENE and GEOL

Electronic meter reading information is provided by MEPS. For HHR AMI installations, interrogation occurs every night so there is little risk that data can be overwritten. Data is held for a longer period at the meter and can be re-interrogated later if required.

Meter events which could affect meter accuracy are emailed by some MEPs to GENE or GEOL’s billing crew for action, which may include contacting the customer or raising a fault. I reviewed 61 examples of these emails received by GENE and GEOL from MEPs, including tamper alarms, voltage spikes, battery alarms, memory failures, over current events, voltage on load side of meter and reverse rotation and found that appropriate action had been taken for all examples.

I found several examples where jobs had been booked, but not completed for various reasons, including inability to get access. I recommend a report of all jobs booked and their status, so they can be monitored and followed up if there are delays.

Description	Recommendation	Audited party comment	Remedial action
Field work monitoring	Develop and monitor a report of all field work to enable follow up if there are turndowns or delays.	We will review our current processes regarding turn downs with a view to implementing improvements	Investigating

GENE and GEOL conduct consumption validation for all AMI ICPs using the same processes as for NHH ICPs. This achieves compliance with the requirement to conduct the following validations:

- checks of unexpected zero values, and
- comparison with expected or previous flow patterns.

GENE and GEOL also conduct consumption validation for all HHR submitted AMI ICPs by performing a sum check comparison between the AMI midnight reads and the sum of the respective interval data. An exception list is produced for the reconciliation team to review and either release the data or escalate this issue to the respective MEP and replace the invalid interval data with an appropriate estimate.

An assessment of the count of AMI HHR intervals estimated for use in the GENE and GEOL HHR submission for the July 2023 R7 submission was performed. Genesis performed estimations for 0.3% of all intervals. This shows a high attainment rate and I have not repeated the recommendation from the last audit that further reporting be developed in this area.

GENH

The Bluecurrent audit report confirms compliance with these clauses. In situations where data fails validation, and a logical reason cannot be found the issue is referred to the account manager for further investigation into possible site-specific reasons for the anomaly. A final option is for a site visit if the anomaly cannot be reasonably explained.

Generation

Interrogation occurs nightly for generation metering so there is little risk that data will be overwritten.

Each validity check for generation half-hour metering information includes the following:

- checks for missing data,
- checks for invalid dates and times (data will not be collected if dates or times are invalid),
- checks of unexpected zero values,
- comparison with expected or previous flow patterns (a comparison is made against the previous month),
- comparisons with the readings reported by meter and data logger registers where these are available, and
- a review of the Stark meter and data logger event list - any event that could have affected the integrity of metering is investigated by the Genesis engineers.

The GEMDP collection system is also used to collect data from all loggers and this data is compared to the “HHR vols” data each month. The two sets of data were compared during the audit and no issues were identified.

Audit outcome

Compliant

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

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

Code reference

Clause 13.136

Code related audit information

Using an approved system or by written notice, each generator must give the relevant grid owner half-hour metering information under clause 13.138 in relation to generating plant—

- (a) that injects electricity directly into a local network or an embedded network; or*
- (b) 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.*

The relevant grid owner is defined as—

- (a) in relation to a generator (other than an embedded generator), the grid owner of the grid to which the generator's generation is connected; and*
- (b) in relation to a generator that is an embedded generator, the grid owner of the grid to which the local network to which the embedded generator is directly or indirectly connected, is connected.*

These clauses do not apply in respect of—

- (a) any unoffered generation; or*
- (c) a dispatch notification generator.*

Audit observation

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit commentary

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit outcome

Compliant

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

Code reference

Clause 13.137

Code related audit information

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

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

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

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

Audit observation

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit commentary

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit outcome

Compliant

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 1000 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

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit commentary

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit outcome

Compliant

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

Code reference

Clause 13.140

Code related audit information

If the generator provides half-hourly metering information to a grid owner under clauses 13.136 to 13.138, or 13.138A, it must also, by 1000 hours of that day, advise the relevant grid owner.

Audit observation

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit commentary

Genesis has responsibilities for the provision of information to the grid owner. EMS conducts this activity as an agent. Compliance is confirmed in the EMS agent report.

Audit outcome

Compliant

11. PROVISION OF SUBMISSION INFORMATION FOR RECONCILIATION

11.1. Buying and selling notifications (Clause 15.3)

Code reference

Clause 15.3

Code related audit information

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

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

Audit observation

Processes to create buying and selling notifications were reviewed. I checked whether any breach allegations had been made.

Audit commentary

There were no breach allegations regarding trading notifications.

The GENE trading team are responsible for creating trading notifications for GENE, GEOL, and GENH on the reconciliation portal. The trading team becomes aware that trading notifications are needed by:

- the Reconciliation Manager providing notification of a change to an existing NSP,
- the GENE reconciliation team advising that they have set up a new NSP or added injection flow to an existing NSP, or
- checking a report from Gentrack against their open trading notifications, which are recorded in Market Submissions Database (MSD).

Notifications are only created where Genesis begins or ceases trading for all ICPs on an NSP, not where they begin or cease trading using a profile other than HHR, RPS, UML, EG1, or PV1 at an NSP. This is because there is no facility to enter a profile into a trading notification on the reconciliation manager portal.

Genesis has extended checks around trading notifications and population of their profile shape file to ensure both the NHH submission file (AV-080) and the profile shape file (AV-100) are aligned for all submissions and wash ups prior to these files being uploaded into the reconciliation managers portal.

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

GENE prepares AV110 ICP days submissions for GENE and GEOL, and Bluecurrent prepares the submissions for GENH.

The process for the calculation of ICP days was examined by checking NSPs with a small number of ICPs to confirm the AV110 ICP days calculation was correct. I reviewed variances for a sample of GR100 reports.

Alleged breaches were reviewed.

Audit commentary

There were two alleged breaches recorded for the incorrect provision of ICP days information. The breaches were 2307GENE1, which is resolved with no warning and 2308GENE1 which has no result yet.

GENE

ICP days submissions are validated against the expected number of active ICP days on the registry list prior to submission. ICPs with differences are checked to determine whether they are timing differences, or information needs to be corrected.

HHR and NHH ICP days are provided on separate reports. The process for the calculation of ICP days was examined by checking nine NSPs with a small number of HHR or NHH ICPs where there were differences in the ICPCOMP report for submissions between January and March 2023. The ICP days calculation was confirmed to be correct. The issues identified were related to backdated registry events.

ICP days comparison

The tables below show the difference between the AV110 ICP days submissions and the RM return file (GR100) for all available revisions for 11 months for GENE for both NHH and HHR submission types. Negative percentage figures indicate that the Genesis Energy AV110 ICP days figures are higher than those contained on the registry, and positive figures indicate that the registry's figures are higher than those contained in the AV110.

HHR

Month	R0	R1	R3	R7	R14
Jun-22	-	-	-	-	0.00%
Jul-22	-	-	-	-	0.00%
Aug-22	-	-	-	-	0.00%
Jan-23	-	-	-	0.00%	
Feb-23	-	-	-	0.00%	
Mar-23	-	-	-	0.00%	
May-23	-	-	0.00%		
Jun-23	-	-	0.00%		
Jul-23	-	0.00%	0.00%		
Aug-23	-	0.01%			-
Sep-23	-	0.01%			-

NHH

Month	R0	R1	R3	R7	R14
Jun-22	-	-	-	-	0.00%
Jul-22	-	-	-	-	0.00%
Aug-22	-	-	-	-	0.00%
Jan-23	-	-	-	0.00%	
Feb-23	-	-	-	0.00%	
Mar-23	-	-	-	0.00%	
May-23	-	-	0.00%		
Jun-23	-	-	0.00%		

Month	R0	R1	R3	R7	R14
Jul-23	-	-0.01%	0.00%		
Aug-23	-	0.00%			-
Sep-23	-	0.00%			-

The GENE process for upgrades and downgrades achieves accuracy for consumption information. The ICP days calculations are correct for upgrades and downgrades because they align with the consumption information.

GEOL

The process for the calculation of ICP days was examined by checking nine NSPs with a small number of HHR or NHH ICPs where there were differences in the ICPCOMP report for submissions between January and March 2023. The ICP days calculation was confirmed to be correct. The issues identified were related to backdated registry events.

The following table shows the ICP days difference between GEOL files and the RM return file (GR100) for all available revisions for 11 months, and small differences were found. Negative percentage figures indicate that the GEOL ICP days figures are higher than those contained on the registry.

HHR

Month	R0	R1	R3	R7	R14
Jun-22	-	-	-	-	0.00%
Jul-22	-	-	-	-	0.00%
Aug-22	-	-	-	-	0.00%
Jan-23	-	-	-	0.00%	
Feb-23	-	-	-	0.00%	
Mar-23	-	-	-	-0.01%	
May-23	-	-	0.00%		
Jun-23	-	-	0.00%		
Jul-23	-	-	0.00%		
Aug-23	-	0.00%			-
Sep-23	-	0.00%			-

NHH

Month	Ri	R1	R3	R7	R14
Jun-22	-	-	-	-	0.00%
Jul-22	-	-	-	-	0.00%
Aug-22	-	-	-	-	0.01%
Jan-23	-	-	-	0.01%	
Feb-23	-	-	-	0.00%	
Mar-23	-	-	-	0.00%	
May-23	-	-	0.02%		
Jun-23	-	-	0.00%		
Jul-23	-		0.00%		
Aug-23	-	0.00%			-
Sep-23	-	0.01%			-

The GEOL process for upgrades and downgrades achieves accuracy for consumption information. The ICP days calculations are correct for upgrades and downgrades because they align with the consumption information.

GENH

Compliance is recorded in the Bluecurrent audit report.

The process for the calculation of ICP days was examined by checking 14 NSPs with a small number of HHR or NHH ICPs where there were differences in the ICPCOMP report for submissions between January and March 2023. The ICP days calculation was confirmed to be correct. The issues identified were related to backdated registry events.

The following table shows the ICP days difference between GENH files and the RM return file (GR100) for all available revisions for 11 months, and small differences were found. Negative percentage figures indicate that the GENH ICP days figures are higher than those contained on the registry.

Month	Ri	R1	R3	R7	R14
Jun-22	-	-	-	-	-0.03%
Jul-22	-	-	-	-	-0.05%

Month	Ri	R1	R3	R7	R14
Aug-22	-	-	-	-	0.00%
Jan-23	-	-	-	0.08%	
Feb-23	-	-	-	-0.09%	
Mar-23	-	-	-	-0.15%	
May-23	-	-	0.06%		
Jun-23	-	-	-0.30%		
Jul-23	-	-	-0.19%		
Aug-23	-	-0.17%			-
Sep-23	-	-0.18%			-

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 to confirm the AV120 calculation was correct.

GR130 reports for January 2021 to September 2023 were reviewed to confirm whether the relationship between billed and submitted data appears reasonable.

Genesis monitors differences between billed and submitted volumes at an aggregate level using their dashboard.

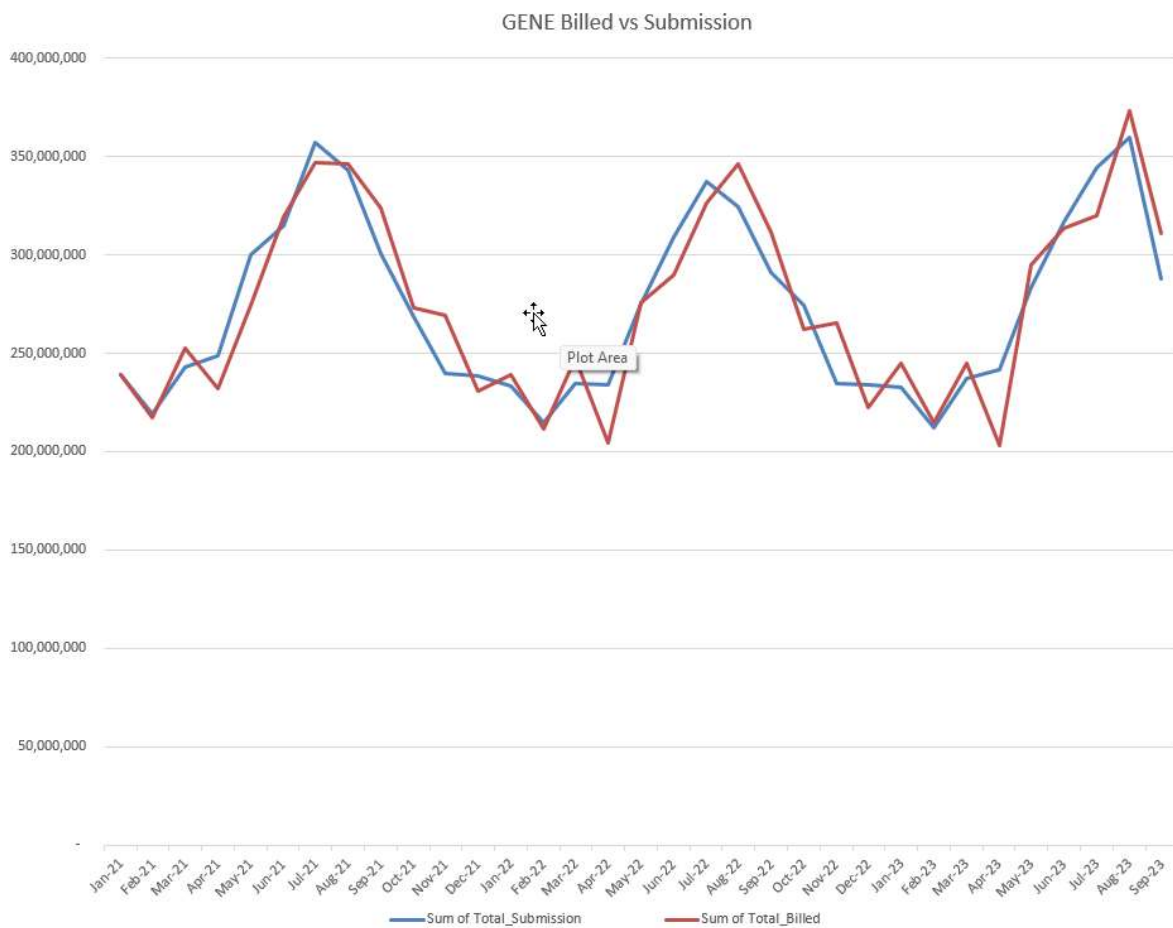
Audit commentary

GENE

The process for the calculation of “as billed” volumes was examined by checking October 2023 AV120 submissions for five NSPs with a small number of ICPs against invoice information. The AV120 billed consumption calculation was confirmed to be correct for the NSPs checked.

GENE’s as billed submissions are complicated by some streetlights which are submitted as NHH and billed as HHR. I walked through GENE’s process to create “as billed” reports and found that these ICPs were identified and handled correctly when creating the “as billed” submissions.

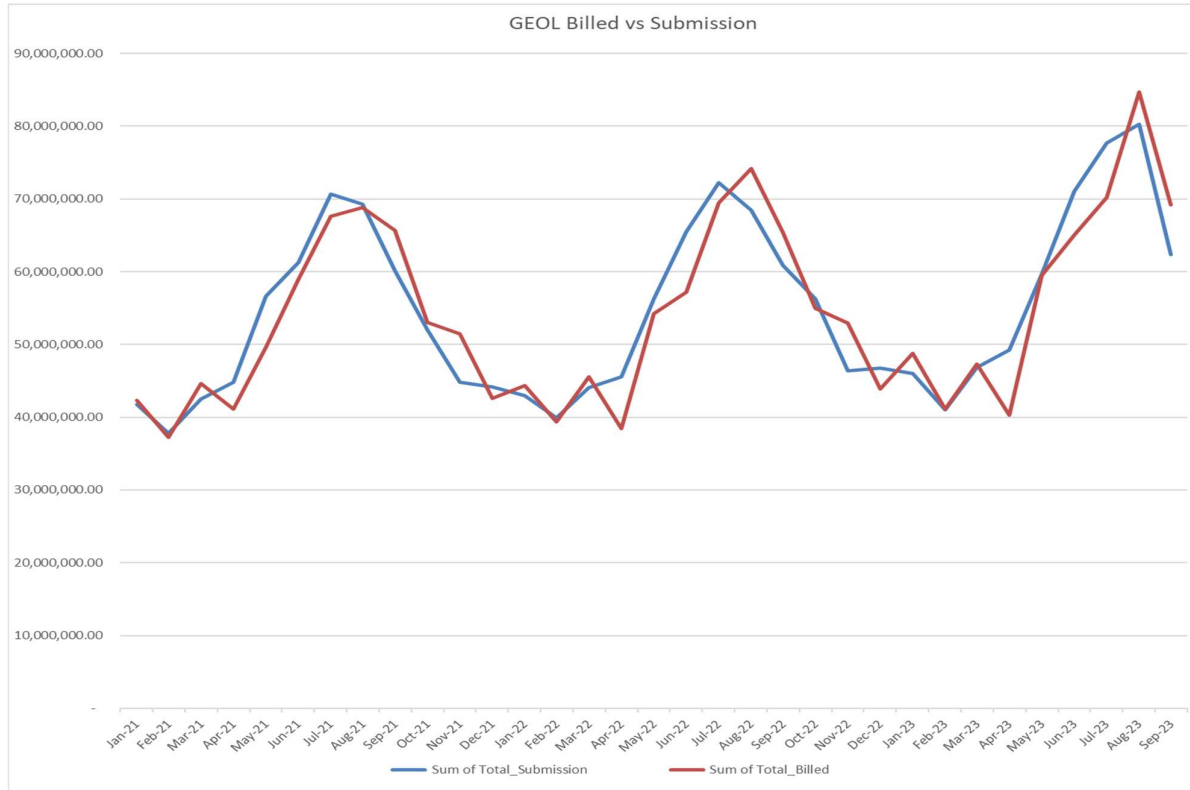
I checked the difference between submission and electricity supplied information for January 2021 to September 2023, and the results are shown below. The difference between billed and submitted data is 0.4% (billed higher than submitted). The differences between billed and submitted data largely appear to be timing differences.



GEOL

The process for the calculation of “as billed” volumes was examined by checking October 2023 AV120 submissions for five NSPs with a small number of ICPs against invoice information. The AV120 billed consumption calculation was confirmed to be correct for the NSPs checked.

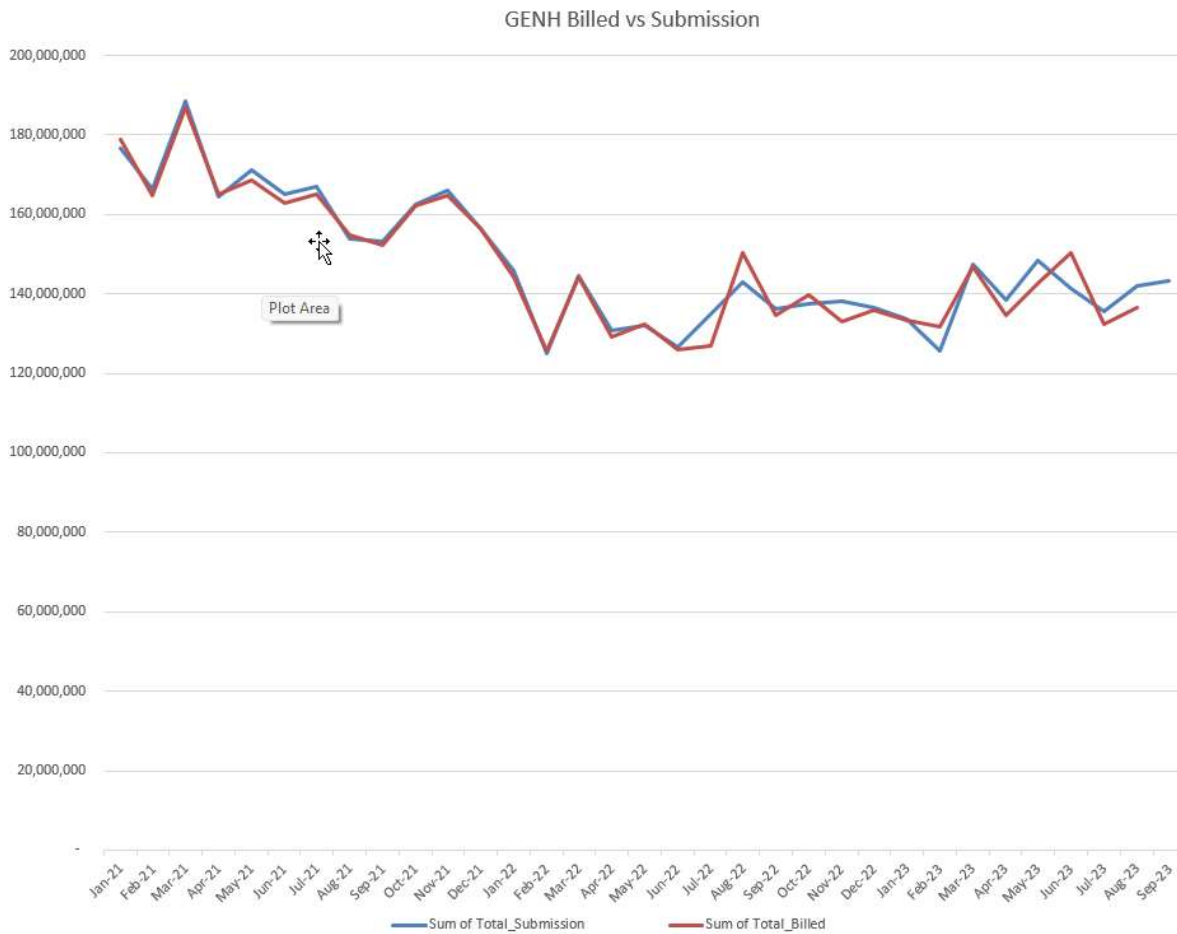
I checked the difference between submission and electricity supplied information for January 2021 to September 2023, and the results are shown below. The difference between billed and submitted data is 0.7% (billed higher than submitted). The differences between billed and submitted data largely appear to be timing differences.



GENH

The process for the calculation of “as billed” volumes was examined by checking October 2023 AV120 submissions for five NSPs with a small number of ICPs against invoice information. The AV120 billed consumption calculation was confirmed to be correct for the NSPs checked.

I checked the difference between submission and electricity supplied information for January 2021 to September 2023, and the results are shown below. The difference between billed and submitted data is 0.1% (billed lower than submitted). The differences appear to relate to timing.



Audit outcome

Compliant

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

Code reference

Clause 15.8

Code related audit information

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

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

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

Audit observation

HHR volumes and aggregates submissions are created by Bluecurrent for GENH, and Genesis for GENE and GEOL.

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates information with the HHR volumes data for a sample of submissions. Aggregates data was also matched to the raw meter reading data for a sample of ICPs.

The GR090 ICP Missing files were examined for all revisions for May 2022 to June 2023, and an extreme case sample of the ICPs which were missing from the most submissions were checked.

Audit commentary

GENE and GEOL

I confirmed that the process for the calculation and aggregation of HHR data is correct, by tracing volumes for two HHR settled ICPs from DRDS to MSD and the HHR aggregates submissions. All volumes matched.

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates information with the HHR volumes data for ten submissions for GEOL and ten submissions for GENE. In all cases there were small rounding differences. Detailed reconciliations at NSP level for a sample of GENE and GEOL submissions confirmed that the differences were due to rounding.

The GR090 ICP missing reports are not specifically monitored by GENE and GEOL, ICP differences are primarily identified through monitoring of ICP days. I examined the GR090 ICP Missing files for all revisions for May 2022 to June 2023.

GENE

I reviewed a sample of 31 ICPs recorded in the GR090 ICPMISS reports for May 2022 onwards and found:

- 26 related to backdated registry events and backdated switches,
- two related in delays completing meter changes that also resulted in a change in submission type (NHH to HHR),
- one related to late provision of data, and
- two related to backdated network events.

Hau Nui Wind Farm ICPs 0696299004PC30D and 0696299005PCF48 are now included in the HHRAGGS, HHRVOLS and ICPDAYS files as part of the monthly automated processes.

Late status and trader updates are discussed in **sections 3.3** and **3.5**, and backdated switches are discussed in **section 4**.

GEOL

I reviewed a sample of four ICPs recorded in the GR090 ICPMISS reports for May 2022 onwards and found:

- two related to backdated switching events,
- one related to a backdated metering event, and
- one related to a backdated status event.

Late status and trader updates are discussed in **sections 3.3** and **3.5**, and backdated switches are discussed in **section 4**.

GENH

I confirmed that the process for the calculation and aggregation of HHR data is correct, by matching HHR aggregates information with the HHR volumes data for ten submissions. Small rounding differences were present.

The process or calculation of volumes was checked by comparing raw meter data from MV90 against aggregates information as part of the Bluecurrent audit.

I reviewed a sample of 23 ICPs recorded in the GR090 ICPMISS reports for May 2022 onwards and found most related to backdated network or trader registry events, except for:

- ICP 0282008594LCF10 switched in on 1 March 2023, but did not appear in the HHR aggregates file until September 2023, and
- ICP 0000174403TRCAA was “active” in April and May 2023 and therefore should have had a zero record even if there was no submission.

The GR090 ICP missing reports are monitored by Bluecurrent as GENH’s agent.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 11.4 With: Clause 15.8 From: 01-Mar-23 To: 04-Sep-23	No submission for ICP 0282008594LCF10 between March and August 2023. Resolved through revisions. No zero record in the aggregates file for ICP 0000174403TRCAA for April and May 2023. Potential impact: Low Actual impact: Low Audit history: Three times Controls: Strong Breach risk rating: 1	
Audit risk rating	Rationale for audit risk rating	
Low	The controls are recorded as strong because they mitigate risk to an acceptable level. 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
We are confident that we have strong controls in place and that the associated risk is low. However, we will continue to work on improving our processes and compliance. This will also be considered during our upcoming billing platform upgrade	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

12. SUBMISSION COMPUTATION

12.1. Daylight saving adjustment (Clause 15.36)

Code reference

Clause 15.36

Code related audit information

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

Audit observation

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

A sample of daylight savings changes were checked to confirm the correct number of trading periods were recorded.

Audit commentary

GENE and GEOL

Daylight savings processes for Bluecurrent (NGCM and SMCO), Influx, IntelliHUB (IHUB and MTRX), ARC, and ACCM were reviewed as part of their audit and found to be compliant. The correct number of trading periods were recorded for all data reviewed.

GENH

The Bluecurrent report confirms compliance.

Generation

Daylight saving is appropriately dealt with for generation metering. The correct number of trading periods were recorded for all data reviewed.

Audit outcome

Compliant

12.2. Creation of submission information (Clause 15.4)

Code reference

Clause 15.4

Code related audit information

By 1600 hours on the 4th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all NSPs for which the reconciliation participant is recorded in the registry as having traded electricity during the consumption period immediately before that reconciliation period (in accordance with Schedule 15.3).

By 1600 hours on the 13th business day of each reconciliation period, the reconciliation participant must deliver submission information to the reconciliation manager for all points of connection for which the reconciliation participant is recorded in the registry as having traded electricity during any consumption period being reconciled in accordance with clauses 15.27 and 15.28, and in respect of which it has obtained revised submission information (in accordance with Schedule 15.3).

Audit observation

Processes to ensure that HHR, NHH and generation submissions are accurate were reviewed. A list of breaches was obtained from the Electricity Authority.

Audit commentary

GENE and GEOL

HHR submissions are created using MSD and are discussed in **section 11.4**. NHH submissions are produced using Derive+ and validated prior to submission as discussed in **section 12.3**. Further information on calculation of historic estimate is recorded in **section 12.11**, and the aggregation of the AV080 report was found to be compliant in **section 12.3**.

A diverse sample of NHH ICPs were checked to confirm submissions were correct.

There were three breaches for late or incorrect submission information, as follows:

1. 2307GENE1, which related to additional incorrect default volumes for some unmetered load ICPs. The submission issue is resolved.
2. 2302GENE1, which related to late submission files for GEOL.

None of these were repeated during the audit period.

Distributed generation

I reviewed a sample of GENE and GEOL ICPs with injection/export registers and confirmed that generation consumption is correctly submitted.

Genesis is monitoring ICPs where the installation type is changed to "B" by distributors and for a number of networks Genesis is advised by the distributor that a DG application has been approved by them. Both triggers enable Genesis to engage with their customers to arrange suitable I flow metering to be installed.

As recorded in **section 6.1**, there were some ICPs where DG was not submitted or was submitted late due to late installation of import/export meters. The findings were as follows:

- ten of a possible ten GENE ICPs had the PV1 or HHR profiles added after the change to "B" by the distributor; the number of days ranged from 16 to 2,215 with an average of 301,
- five ICPs of a sample of ten of a possible 23 GENE ICPs that were generating or likely to be generating but not have compliant metering installed, and notification of gifting had not been provided,
- eight of a possible eight GEOL ICPs had the PV1 profile added after the change to "B" by the distributor; the number of days ranged from 33 to 376 with an average of 141, and
- nine GEOL ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.

Vacant consumption

I checked the process for vacant consumption and confirmed that vacant consumption is reported. Vacant ICPs continue to be read. The readings are stored within the read tables in Gentrack but not against a customer account, and the reads are transferred from the read table to Derive+.

Inactive consumption - NHH

At the time of the audit there were 5,394 ICPs identified where consumption identified is greater than 1 kWh with a volume of "inactive consumption" of over 764,566 kWh. These are being worked through with the higher volume records being investigated first. The oldest exception is from 1991.

Some exceptions on the "inactive consumption" report are false positives as the report uses Gentrack as its source of connection status. Where an ICP switches away from Genesis while "inactive" then where the ICP switches back to Genesis the report retrieves both the last actual read from the previous Genesis

tenure and also considers the entire switched period as “inactive” resulting in a false positive exception. The previous audit report recommended changes to this reporting to improve accuracy. During the audit I checked 20 ICPs and found they were all appropriately resolved, therefore I have not repeated the recommendation, given the new system will have a different set of reports designed to give accurate information.

HHR volumes for day of disconnection

MSD uses registry information to determine the selection window for HHR submission information. The registry considers “inactive” status change to occur at the beginning of the day, so any consumption recorded from midnight prior to the physical disconnection to the disconnection time is not included in the AV-090 submission file.

Unmetered load

I checked a diverse sample of 20 GENE and GEOL ICPs with standard and shared unmetered load and identified that the information used to calculate submission information was correct for ICPs with shared unmetered load.

In all cases, the submission was correct. The issue from the previous audit, where shared unmetered load consumption was not correctly submitted has been resolved.

Nine unmetered load ICPs were reviewed where a placeholder daily kWh value of 0.5 kWh per day is recorded on the registry and no retailer UNM details are recorded on the registry. The address information or ANZSIC code available on the registry indicated that these unmetered loads related to telecommunications cabinets associated with Vodafone. Vodafone has recently undergone a DUMML audit and when comparing these results to this sample of nine ICPs it was confirmed that four ICPs are present in the Vodafone DUMML database, so are no longer required and the remaining five ICPs were checked in the field, and it was confirmed that no unmetered load was present at these locations. I recommend that Genesis works with the distributor and Vodafone’s current retailer to decommission these redundant ICPs once independent confirmation has been obtained.

Description	Recommendation	Audited party comment	Remedial action
Review historic unmetered load records where no description of unmetered load is present	Work with Wellington Electricity and other respective distributors to validate is historic unmetered load records where the daily kWh value is 0.5 kWh per day and no retailer or distributor UNM record is available to determine if this unmetered load is still valid.	We agree with this recommendation and will liaise with the respective distributors regarding this.	Identified

The operational hours of standard unmetered load were also reviewed to ensure this was consistent with the type of unmetered load recorded in the registry. 232 payphones are recorded on the registry with only 12 hours of operation recorded. Genesis also has 855 payphones where the hours of operation are recorded as 24 hours. Payphones do not normally have battery back-up capability, so the operational hours recorded on the registry and used to calculate the daily kWh value appear inconsistent with both the other payphones traded by Genesis and the general operation of these phones. I recommend that Genesis review the operation characteristics with their customer and if it is found that these phones have 24 operational hours characteristics that the registry is updated to reflect this.

Description	Recommendation	Audited party comment	Remedial action
Review the operational characteristics of 232 unmetered payphones recorded with 12 hours of operation	Work with the customer associated with 232 unmetered payphones recorded with 12 hours of operation and review the operational characteristics of these phones with a view to updating the registry if the information is found to be incorrect.	This is a work in progress, and we have received a report from the customer with updating consumption information for these payphones, we will liaise with the distributors to ensure both the trader and network unmetered load information is corrected	In progress

Reconciled elsewhere ICPs

GENE has 12 ICPs that have “reconciled elsewhere” status:

- ten relate to DUML and Genesis are investigating with the respective distributors whether these ICPs can be decommissioned given the load associated is recorded against another DUML ICP, and
- for ICPs 0096279100WR4B1 and 0096281200WRF2E the last two audits have recorded these ICPs as having the incorrect status reason of “reconciled elsewhere” but they should be recorded as “inactive - vacant” as they are part of the Powerco Base Power trial, and they are not currently consuming and there is no volume being reconciled elsewhere; Genesis changed them but were requested by the network to return them to “reconciled elsewhere” whilst they investigate if they are still on trial which is recorded as non-compliance in **section 3.9**.

Corrections

A sample of corrections were reviewed to ensure that they flowed through to revision submissions in **sections 2.1, 2.17, 6.5, 8.1 and 8.2**.

A sample of bridged ICPs were reviewed to check if these has been unbridged and if corrections were processed and found:

- consumption for the bridged period has not been submitted for seven GENE ICPs and has not been correctly apportioned across the bridged period for three ICPs, and
- consumption for the bridged period has not been submitted for four GEOL ICPs.

The Genesis policy around historic volume corrections are that they are only calculated and apportioned for the previous 14 months to align with the revision window. Where an error has been detected for a longer period of time, only a subset of the correction is applied. The Authority confirmed on 25 September 2023 that there was no expectation that volume information was “squashed” into the 14-month window.

ICP 0000027221UN85C did not have a correction conducted for the entire period. The corrections needed to be for NHH up until the end of February 2023 (72 days) then HHR for the 1st to the 23rd of March 2023. The HHR correction was conducted but not the NHH correction.

ICP 0063099483WE8B9 had a stopped meter, however the correction was not conducted for the entire period the meter was stopped.

Zeroing of AV080 rows

The submission file zeroing process is managed within MSD. MSD identifies any contracts which are open during the submission period where an aggregation line has not been provided. The reconciliation team review these exceptions and use scripts to create dummy ICPs in Derive+ with zero consumption and the appropriate aggregation factors, which will be incorporated into the AV080 report as zero lines.

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

I found 33 NSPs for various revisions where zeroing had not occurred. This was mainly due to a query in Derive+ where there the comparison to identify rows to be zeroed only looked back at the last revision not all revisions. This matter is now resolved. The total over submission is 10,661 kWh and 9,525 kWh cannot be corrected because the 14-month revision period has passed.

GENH

HHR submissions are prepared by Bluecurrent as GENH’s agent, as discussed in **section 11.4**.

As recorded in **section 11.4**:

- ICP 0282008594LCF10 switched in on 1 March 2023, but did not appear in the HHR aggregates file until September 2023, and
- ICP 0000174403TRCAA was “active” in April and May 2023 and therefore should have had a zero record even if there was no submission.

Unmetered load

GENH supplies two active ICPs with unmetered load. These have been set up in Derive+ and are being submitted under the GENE code.

Reconciled elsewhere ICPs.

ICPs 1001158205LC354 and 1001158207LC3D1 have “inactive - reconciled elsewhere” status and are excluded from submissions. The status has been confirmed as correct for both ICPs.

Generation

Generation submissions are discussed in **section 12.6**.

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 12.2</p> <p>With: Clause 15.4</p>	<p>GENE and GEOL</p> <p>Ten of a possible ten GENE ICPs had the PV1 or HHR profiles added after the change to “B” by the distributor. The number of days ranged from 16 to 2,215 with an average of 301.</p> <p>Five ICPs of a sample of ten of a possible 23 GENE ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>Eight of a possible eight GEOL ICPs had the PV1 profile added after the change to “B” by the distributor. The number of days ranged from 33 to 376 with an average of 141.</p> <p>Nine GEOL ICPs that were generating or likely to be generating did not have compliant metering installed, and notification of gifting had not been provided.</p> <p>HHR volumes for day of disconnection not included in submission.</p> <p>Consumption for the bridged period has not been submitted for seven GENE ICPs and has not been correctly apportioned across the bridged period for three ICPs.</p> <p>Consumption for the bridged period has not been submitted for four GEOL ICPs.</p>

<p>From: 01-Feb-23 To: 07-Mar-24</p>	<p>ICP 0000027221UN85C did not have a correction conducted for the entire period the meter was defective.</p> <p>ICP 0063099483WE8B9 had a stopped meter, however the correction was not conducted for the entire period the meter was stopped.</p> <p>ICP 0282008594LCF10 switched in on 1 March 2023, but did not appear in the HHR aggregates file until September 2023.</p> <p>ICP 0000174403TRCAA was "active" in April and May 2023 and therefore should have had a zero record even if there was no submission.</p> <p>9,525 kWh over submission due to zeroing not occurring.</p> <p>Potential impact: Medium</p> <p>Actual impact: Medium</p> <p>Audit history: Multiple times</p> <p>Controls: Moderate</p> <p>Breach risk rating: 4</p>	
Audit risk rating	Rationale for audit risk rating	
Medium	<p>The controls are recorded as moderate because they mitigate risk most of the time but there is room for improvement. The controls have been improved during the audit period.</p> <p>The impact on settlement and participants is moderate; therefore, the audit risk rating is medium.</p>	
Actions taken to resolve the issue	Completion date	Remedial action status
Both our DG and Bridged meter processes have been reviewed and strengthened during this audit period and we will continue working toward improving our processes / compliance. This will be supported by our upcoming billing platform upgrade	Ongoing	Identified
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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**.

I evaluated the process for ensuring the correct NSP is recorded by conducting a walk-through of the registry validation and submission processes for NHH and HHR. NSP errors will also show in the ICPCOMP and ICPMISS reports, so these were checked as well.

The process for aggregating the AV080 was examined by checking five NSPs with a small number of ICPs each for GENE and GEOL.

Audit commentary

GENE and GEOL

Genesis prepares NHH submissions for GENE and GEOL using reconciliation consumption generated in Derive+.

The process for aggregating the AV080 was examined by checking five NSPs with a small number of ICPs each for GENE and GEOL. Compliance is confirmed.

Changes to ICP level data are transferred from Gentrack to the registry. Derive+ imports ICP level data directly from the registry each night, including data maintained by other parties such as NSP information. The process compares event data for the past 16 months and updates Derive+.

Metering and reading data are transferred from Gentrack to MSD and Derive+, and end of month readings are transferred from DRDS to Derive+. Derive+ validates reading data. Any reading which fails validation is placed "on hold" and will not be used by the reconciliation process unless it is reviewed and passed. Validations in Derive+ include checks for incomplete data, mismatched data, replacement data, data outside GENE or GEOL's period of ownership, and data that falls outside expected values (high or low compared to the previous submission, or over 10,000 kWh). Genesis have been making progress reviewing volume exceptions down to 5,000 kWh on a consistent basis where time and resources allow.

Queries are used to obtain additional information on exceptions, and they can be passed in bulk so that outliers can be focused on. It is also possible to manually pass or fail exceptions individually.

I walked through the process to review submission information in MSD using the Consumption Validation Manager Tool (MVMT). The tool allows comparison at distributor and NSP level between previous months and revisions and presents data graphically and in tables. It is possible to drill down to meter level and compare data from Gentrack and Derive+.

Low and negative consumption is identified and resolved through Derive+'s validations before being viewed in MVMT. MVMT allows users to view the data only, if an exception requires correction, it must be adjusted in Derive+ and Gentrack (if necessary), and then re-checked using MVMT.

GENE and GEOL HHR data are also reviewed in MSD prior to submission. I walked through the validation process which includes checks against expected values and the previous 14 months of consumption for the ICP. The reconciliation team uses queries to prioritise the ICPs that have failed validations, focussing on the largest differences (more than $\pm 150\%$) first and then working through smaller discrepancies.

GENH

HHR submissions are prepared by Bluecurrent as GENH's agent, as discussed in **section 11.4**.

Generation

Generation submissions are discussed in **section 12.6**.

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

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

Audit outcome

Not applicable

12.5. Provision of NSP submission information (Clause 15.10)

Code reference

Clause 15.10

Code related audit information

The participant (if a local or embedded network owner) must provide to the reconciliation manager for each NSP for which the participant has given a notification under clause 25(1) 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 lists and NSP table were reviewed.

Audit commentary

Genesis does not own any local or embedded networks; 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

Genesis is a generator, and I examined the process for preparation of submission information.

Audit commentary

I matched the raw data retrieved using Stark to submissions for all NSPs and confirmed that the submissions were correct.

Audit outcome

Compliant

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 or inaccurate. Corrections were reviewed in **sections 2.1, 8.1 and 8.2**.

Audit commentary

As mentioned in **section 12.2** there was one breach for late files and two for inaccurate information.

GENE and GEOL

The following read and volume issues were identified during the audit for GENE which were not resolved as soon as practicable:

Subject	Section	Comments	All practicable steps taken?
Defective meters	2.1, 12.2	Defective meters are typically identified from information provided by the meter reader, agent, the MEP, or the customer. Upon identifying a possible defective meter, a field services job is raised to investigate and resolve the defect, and a consumption correction is processed if necessary. Corrections are normally processed by recording an estimated closing read on the replaced meter, which is calculated using the daily average consumption for the new meter or the replaced meter prior to the fault. This process was used for those ICPs where corrections were conducted.	No

		<p>ICP 0000027221UN85C did not have a correction conducted for the entire period. The corrections needed to be for NHH up until the end of February 2023 (72 days) then HHR for the 1st to the 23rd of March 2023. The HHR correction was conducted but not the NHH correction.</p> <p>ICP 0063099483WE8B9 had a stopped meter, however the correction was not conducted for the entire period the meter was stopped.</p>	
Incorrect multipliers	8.2	<p>If an ICP with an incorrect multiplier is unbilled the multiplier will be replaced. If the ICP has one or two invoices, the invoice(s) will be reversed, the multiplier will be corrected, and then the ICP will be reissued. The corrected data will flow from Gentrack to Derive+ overnight.</p> <p>If the ICP has more than two invoices, it is corrected by reloading the metering with the correct multiplier and transferring the reads to the reloaded meter. The corrected details flow from Gentrack to Derive+ overnight.</p> <p>I reviewed 25 multiplier corrections for GENE and confirmed that the corrected data flowed through to revision submissions for all of the ICPs.</p>	Yes
Bridged meters	2.1,2.17, 6.4	<p>Bridged meters are identified through a key word query that scans across all returned service request paperwork looking for words and phrases that indicates a meter has been bridged or bypassed. A summary spreadsheet was provided of 97 bridged meters for GENE, which showed that the process was not always operating as intended.</p> <p>GENE</p> <p>Consumption for the bridged period has not been submitted for seven ICPs and has not been correctly apportioned across the bridged period for three ICPs.</p> <p>GEOL</p> <p>The GEOL process for bridging and un-bridging meters is manual, however reporting is now in place to monitor bridging examples.</p> <p>Consumption for the bridged period has not been submitted for four ICPs.</p>	No
Consumption while inactive	2.1	<p>At the time of the audit there were 5,394 ICPs identified where consumption identified is greater than 1 kWh with a volume of inactive consumption of over 764,566 kWh. These are being worked through with the higher volume records being investigated first. The oldest exception is from 1991.</p> <p>During the audit I checked 20 ICPs and found they were all appropriately resolved.</p>	Yes

Unmetered load corrections	2.1, 3.7, 12.2	<p>Derive+ uses the daily kWh value on the registry as its source of unmetered load information.</p> <p>GENE</p> <p>The AC020 report recorded 27 ICPs where the daily unmetered kWh differed from the recalculation based on the distributor information by more than ± 0.1 kWh. All were examined and found:</p> <ul style="list-style-type: none"> • 33 were DUML ICPs and are compliant, • as recorded in the last audit, ICP 0000842905WPDC2 had had unmetered load set to zero and is correct based on the distributor and trader unmetered load details, and • ICP 0006097006RND4F was “active” with GENE from 2 December 2023 to 6 September 2023 with an unmetered load of zero and has been decommissioned since 2013 and has been pending decommission since 1 May 2013; the network requested GENE reverse the pending decommission and make it ready for decommissioning from 7 September 2023 causing the ICP to be recorded as “active” which has caused GENE to be non-compliant for the incorrect status and is recorded as non-compliance in sections 2.1 and 3.9. 	Yes
HHR part day volumes not submitted for disconnection day	12.2	MSD uses registry information to determine the selection window for HHR submission information. Registry considers “inactive” status change to occur at the beginning of the day, so any consumption recorded from midnight prior to the physical disconnection to the disconnection time is not included in the AV-090 submission file.	No
Default consumption for DUML ICPs	2.1	Derive+ was adding default consumption of 25 kWh per day to DUML ICPs where consumption was already submitted. This matter was resolved as soon as it was identified.	Yes

As detailed in **sections 4.4 and 4.11:**

GENE

- four incorrect start reads in Derive+ out of a sample of ten of a possible 67 ICPs checked where RR files have been processed in Gentrack,
- four of a sample of ten of a possible 311 RR files were incorrect; three had the correct read in Gentrack but the incorrect read in Derive+ and one RR read not recorded correctly in Gentrack and Derive+ - these errors have resulted in an over submission of 6,075 kWh.

GEOL

- one incorrect start reads in Derive+ out of a sample of four checked of a possible 13 ICPs where RR files have been processed in Gentrack resulting in an over submission of 258 kWh, and
- six of a sample of ten of a possible 41 RR files were incorrect; all had the correct read in Gentrack but the incorrect read in Derive+ resulting in an over submission of 12,845 kWh.

Discussion during the site visit identified that RR reads weren’t always flowing through to Derive+. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly.

I checked the issues identified for GENE and GEOL in the previous audit and found all corrections had been conducted, unless investigators are still underway.

GENH

All read and volume issues were resolved as soon as practicable.

Audit outcome

Non-compliant

Non-compliance	Description	
Audit Ref: 12.7 With: Clause 15.12 From: 01-Feb-23 To: 07-Mar-24	GENE and GEOL Some submission data was inaccurate and was not corrected at the next available opportunity. Potential impact: High Actual impact: Medium Audit history: Three times Controls: Moderate Breach risk rating: 4	
Audit risk rating	Rationale for audit risk rating	
Medium	The controls are recorded as moderate overall as there is still room for improvement. The impact is assessed to be medium based on kWh impacts to the market for volumes not reconciled within 14 months.	
Actions taken to resolve the issue	Completion date	Remedial action status
We will investigate this and work on improving our processes and compliance. This will also be considered during our upcoming billing platform upgrade	TBC	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

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

Code reference

Clause 4 Schedule 15.2

Code related audit information

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

The relevant reconciliation participant must, at the earliest opportunity, and no later than the month 14 revision cycle, replace volume information created using estimated readings with volume information created using validated meter readings.

If, despite having used reasonable endeavours for at least 12 months, a reconciliation participant has been unable to obtain a validated meter reading, the reconciliation participant must replace volume information created using an estimated reading with volume information created using a permanent estimate in place of a validated meter reading.

Audit observation

NHH volumes 14-month revisions were reviewed for June to August 2022 to identify any forward estimate still existing.

Audit commentary

Review of the 14-month revisions showed that all estimated meter readings had been replaced with validated meter readings.

GENE

AV080 submissions were reviewed to identify the quantity of forward estimate remaining at revision 14:

Month	Forward estimate at revision 14
Jun-22	0.00
Jul-22	0.00
Aug-22	0.00
Grand Total	0.00

GEOI

AV080 submissions were reviewed to identify the quantity of forward estimate remaining at revision 14:

Month	Forward estimate at revision 14
Jun-22	0.00
Jul-22	0.00
Aug-22	0.00
Grand Total	0.00

The process to identify and resolve ICPs with FE remaining prior to R14 is operating as expected and compliance is confirmed.

Audit outcome

Compliant

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

Code reference

Clause 2 Schedule 15.3

Code related audit information

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

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

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

Aggregation and content of reconciliation submissions was reviewed, and the registry lists were reviewed.

Audit commentary

GENE

Compliance with this clause was assessed.

- GENE supply two active ICPs with meter category 3 or higher.
- ICPs 0696299004PC30D and 0696299005PCF48 relate to the Hau Nui wind farm and have HHR submission type and profile. The generation team read the meter and provide the data which is correctly submitted.
- Analysis of the ACO20 report found profile and submission flags appeared consistent for all ICPs.
- Unmetered load submissions were checked in **section 12.2** and found to be accurate.
- No profiles requiring a certified control device are used.
- No loss or compensation arrangements are required.
- Aggregation of the AV080 report is discussed in **section 12.3** and aggregation of the AV090 and AV140 reports is discussed in **section 11.4**.

GEOL

- GEOL does not supply any category 3 or higher ICPs.
- Analysis of the AC020 report found profile and submission flags appeared consistent for all ICPs.
- Unmetered load submissions were checked in **section 12.2** and found to be accurate.
- No profiles requiring a certified control device are used.
- No loss or compensation arrangements are required.
- Aggregation of the AV080 report is discussed in **section 12.3** and aggregation of the AV090 and AV140 reports is discussed in **section 11.4**.

GENH

- All active ICPs have submission type HHR and HHR profile.
- Analysis of the AC020 report found profile and submission flags appeared consistent for all ICPs.
- No profiles requiring a certified control device are used.
- GENH unmetered load is now being submitted as discussed in **section 12.2**.
- No loss or compensation arrangements are required.
- Aggregation of the AV090 and AV140 reports is discussed in **section 11.4**.

Audit outcome

Compliant

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

Code reference

Clause 3 Schedule 15.3

Code related audit information

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

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

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

Audit observation

Nine AV080 submissions for revisions 3 to 14 were reviewed for GEOL and GENE, 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

GENE and GEOL

I reviewed a diverse sample of nine AV080 submissions each for GENE and GEOL, including a diverse sample of months and revisions. Forward and historic estimates are included and identified.

The issue of incorrect labelling and submission of unmetered load volumes is now resolved.

GENH

GENH does not provide AV080 submissions.

Audit outcome

Compliant

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

Code reference

Clauses 4 and 5 Schedule 15.3

Code related audit information

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

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

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

Audit observation

To assist with determining compliance of the historical estimate processes, GENE and GEOL were supplied with a list of scenarios, and for some individual ICPs a manual HE calculation was conducted and compared to the result from the Derive+.

Audit commentary

The process for managing shape files was examined. Shape files are downloaded from the reconciliation manager portal after each set of allocation results are published. The RPS shape values are loaded into Derive+ by GENE. The upload process has controls which inform the user whether the upload has completed successfully.

I reviewed examples of historic estimations being calculated for both X and I flows and confirmed that the process is consistent across each flow direction and the GR-030's NSP profile shape is used to calculate historic estimate volumes for PV1 and EG1 profile codes.

To assist with determining compliance of the historical estimate processes, GENE and GEOL tested a list of scenarios, and for some individual ICPs a manual calculation was conducted and compared to the system result. The table below shows that all scenarios tested were compliant.

Test	Scenario	Test Expectation	Outcome
A	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Pass
B	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Pass
C	ICP become Inactive then Active again within a month.	Consumption is only calculated for the Active portion of the month.	Pass

Test	Scenario	Test Expectation	Outcome
D	ICP switches in part way through a month on an estimated switch reading	Consumption is calculated to include the 1st day of responsibility.	Pass
E	ICP switches out part way through a month on an estimated switch reading	Consumption is calculated to include the last day of responsibility.	Pass - Closing readings are all classified as actual.
F	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Pass
G	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Pass
H	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Pass
I	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Pass
J	Unmetered load for a full month	Consumption is calculating based on daily unmetered kWh for full month.	Pass
K	Unmetered load for a part month	Consumption is calculating based on daily unmetered kWh for active days of the month.	Pass
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.	Pass
M	ICP with a customer read during the month	Customer reads are not used to calculate historic estimate.	No example provided
N	ICP with a photo read during the month	Photo reads are not used to calculate historic estimate.	No example provided
O	ICP has a meter with a multiplier greater than 1	The multiplier is applied correctly	Pass

Review of historic estimate examples found that where part of a read-to-read period was “inactive”, the SASV “inactive” days were excluded from both the numerator and denominator when calculating the historic estimate, forcing all consumption to be reported within the “active” portion of the read-to-read period. Where an entire read-to-read period has “inactive” status, the numerator and denominator will be zero and no historic estimate will be reported. The status must be returned to “active” to allow consumption during “inactive” periods to be correctly reported.

Derive+ does not use customer or photo reads in its calculation of historic estimate volumes and no examples were identified for review.

I found that disconnection and reconnection readings are not always provided and subsequently entered, but for all examples checked at least part of the read-to-read period was “active” and all consumption was forced into the “active” portion.

Audit outcome

Compliant

12.12. Forward estimate process (Clause 6 Schedule 15.3)

Code reference

Clause 6 Schedule 15.3

Code related audit information

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

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

Audit observation

The process to create forward estimates was reviewed.

Forward estimates were checked for accuracy by analysing the GR170 file for variances between revisions over the audit period.

Audit commentary

Derive+ will calculate a forward default estimate (FDE) for any “active” days where historic estimate cannot be calculated because validated actual readings or permanent estimates are not available.

Forward standard estimate (FSE)

FSE is calculated at meter register level for active days as:

$$\frac{\text{(most recent validated reading – previous validated reading)}}{\text{sum of shape values for read-to-read period}} \times \text{shape value for day to be estimated}$$

I reviewed examples of ICPs with FSE and confirmed that FSE was calculated as expected, and only used where historic estimate could not be calculated because insufficient read information was available.

Forward default estimate (FDE)

Where there is insufficient information available to calculate historic estimate or FSE, FDE is applied. An ICP level average daily consumption value for each region and month is applied. The daily average is split evenly between the ICP’s meter registers where there is more than one meter on the day to be estimated.

I reviewed examples of ICPs with FDE and confirmed that FDE was calculated as expected, and only used where historic estimate and FSE could not be calculated.

GENE

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within 15%. The table below shows the number of balancing areas where this target was not met.

Month	Over ±15%				Over ±15% and ±100,000 kWh				Total Balancing Areas
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14	
Jan-22	35	68	78	96	0	0	0	1	262
Feb-22	12	49	62	78	0	0	1	1	264
Mar-22	11	28	45	56	0	0	0	0	268
Apr-22	38	53	68	75	1	0	1	0	271
May-22	12	34	50	48	0	0	0	0	270
Jun-22	7	30	54	51	2	1	2	1	271
Jul-22	10	38	57	59	1	1	1	1	241
Aug-22	6	26	42	47	0	0	0	0	241
Sep-22	9	38	40		1	2	0		248
Oct-22	3	55	57		0	0	0		254
Nov-22	28	73	74		5	6	4		260

Month	Over ±15%				Over ±15% and ±100,000 kWh				Total Balancing Areas
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14	
Dec-22	34	78	90		4	8	7		228
Jan-23	17	64	67		0	0	0		235
Feb-23	11	79	47		0	0	0		230
Mar-23	14	55	65		0	1	0		230
Apr-23	92	55	66		0	0	0		237
May-23	20	50			0	0			236
Jun-23	17	65			0	0			241
Jul-23	20	77			0	1			246
Aug-23	27				0				256
Sep-23	21				0				243
Oct-23	18				0				245

The total variation between revisions at an aggregate level is shown below:

Month	Over ±15%				Volume impact Over ±15%			
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14
Jan-22	1.15%	0.85%	1.05%	2.16%	-	-	-	-
Feb-22	-2.33%	0.55%	1.01%	2.40%	-	-	-	-
Mar-22	0.19%	0.71%	1.10%	1.65%	-	-	-	-
Apr-22	-0.72%	0.20%	0.59%	0.80%	-	-	-	-
May-22	-0.97%	-3.74%	-3.40%	-3.31%	-	-	-	-
Jun-22	3.45%	0.65%	-1.87%	-1.29%	-	-	-	-
Jul-22	-2.35%	-5.12%	-5.89%	-5.92%	-	-	-	-
Aug-22	-0.48%	-0.28%	-0.64%	-0.72%	-	-	-	-
Sep-22	1.09%	3.03%	3.56%		-	-	-	-
Oct-22	1.82%	4.39%	5.21%		-	-	-	-
Nov-22	-0.26%	8.83%	4.98%		-	-	-	-
Dec-22	6.22%	11.69%	11.69%		-	-	-	-

Month	Over ±15%				Volume impact Over ±15%			
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14
Jan-23	0.91%	1.91%	2.81%		-	-	-	
Feb-23	0.62%	-6.19%	2.48%		-	-	-	
Mar-23	0.35%	-3.39%	2.77%		-	-	-	
Apr-23	-7.16%	-2.69%	-2.49%		-	-	-	
May-23	-0.13%	1.33%			-	-		
Jun-23	0.12%	0.86%			-	-		
Jul-23	-0.08%	-0.43%			-	-		
Aug-23	-1.40%				-	-		
Sep-23	1.75%				-	-		
Oct-23	1.63%							

I reviewed all balancing areas with variation between revisions of more than ± 15% which occurred after January 2022.

The differences were found to be caused by:

- forward estimate being higher or lower than the actual consumption where reads could not be obtained until later revisions; this is more prevalent when moving between seasons and is becoming more prevalent as the AMI rollout continues leaving the hard to read and reach ICPs in this pool,
- misreads which were detected after the initial submission, and
- a system issue in Derive+ related to DUMML ICPs, which has now been resolved.

Non-compliance is recorded where the differences related to forward estimate being too high or low.

GEOL

The accuracy of the initial submission, in comparison to each subsequent revision is required to be within 15%. The table below shows the number of balancing areas where this target was not met.

Month	Over ±15%				Volume impact Over ±15%			
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14
Jan-22	14	27	28	28	0	0	0	0
Feb-22	3	12	13	13	0	0	0	0
Mar-22	7	9	13	16	0	0	0	0
Apr-22	7	26	28	29	0	0	0	0
May-22	8	12	14	14	0	0	0	0
Jun-22	1	9	13	16	0	0	0	0
Jul-22	3	10	14	16	0	0	0	0
Aug-22	1	14	18	17	0	0	0	0
Sep-22	6	14	18		0	0	0	
Oct-22	4	13	17		0	0	0	

Month	Over ±15%				Volume impact Over ±15%			
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14
Nov-22	5	27	29		0	0	0	
Dec-22	9	28	27		0	0	0	
Jan-23	7	22	20		0	0	0	
Feb-23	8	34	17		0	0	1	
Mar-23	6	14	18		0	0	0	
Apr-23	32	20	23		0	0	0	
May-23	6	16			0	0		
Jun-23	5	17			0	0		
Jul-23	8	31			0	0		
Aug-23	13				0			
Sep-23	12							
Oct-23	13							

The total variation between revisions at an aggregate level is shown below:

Month	Over ±15%				Volume impact Over ±15%			
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14
Jan-22	1.61%	1.34%	2.25%	2.84%	-	-	-	-
Feb-22	-1.62%	1.40%	1.36%	2.87%	-	-	-	-
Mar-22	0.47%	0.80%	1.22%	2.53%	-	-	-	-
Apr-22	-0.94%	-1.59%	-1.44%	-0.89%	-	-	-	-
May-22	-0.99%	-5.08%	-4.91%	-4.86%	-	-	-	-
Jun-22	-0.76%	-4.08%	-6.37%	-5.81%	-	-	-	-
Jul-22	-0.87%	-3.05%	-3.11%	-3.24%	-	-	-	-
Aug-22	-0.68%	-0.06%	-0.93%	-0.87%	-	-	-	-
Sep-22	0.94%	3.82%	3.70%		-	-	-	-
Oct-22	1.53%	5.19%	6.43%		-	-	-	-
Nov-22	1.60%	7.50%	7.46%		-	-	-	-
Dec-22	-0.67%	4.88%	4.88%		-	-	-	-

Month	Over ±15%				Volume impact Over ±15%			
	Revision 1	Revision 3	Revision 7	Revision 14	Revision 1	Revision 3	Revision 7	Revision 14
Jan-23	1.67%	3.58%	3.52%		-	-	-	
Feb-23	0.30%	-4.99%	4.69%		-	-	-	
Mar-23	0.91%	3.89%	4.91%		-	-	-	
Apr-23	-6.16%	-4.62%	-4.20%		-	-	-	
May-23	-0.73%	-7.46%			-	-		
Jun-23	-0.62%	0.40%			-	-		
Jul-23	0.04%	-0.46%			-	-		
Aug-23	-1.96%				-	-		
Sep-23	1.26%				-	-		
Oct-23	2.96%							

I reviewed all balancing areas with variation between revisions of more than ± 15% which occurred after January 2022.

There was only one balancing area to examine, and this was due to lower than predicted consumption in the area affected by Cyclone Gabriel.

Non-compliance is recorded where the differences related to forward estimate being too high or low.

Audit outcome

Non-compliant

Non-compliance	Description		
Audit Ref: 12.12 With: Clause 6 Schedule 15.3 From: 01-Feb-23 To: 07-Mar-24	GENE and GEOL The accuracy threshold was not met for some months and revisions, because forward estimate was too high or too low. Potential impact: High Actual impact: Low Audit history: Multiple times Controls: Strong Breach risk rating: 1		
Audit risk rating	Rationale for audit risk rating		
Low	Controls are rated as strong because the estimation process is robust as it can be when estimates are being calculated. Initial data is replaced with revised data and washed up. A small number of submissions had differences over the threshold.		
Actions taken to resolve the issue		Completion date	Remedial action status
We have strong controls in place and these ensure that the associated risk is low. However, we will continue to work on improving our processes and compliance. This will also be considered during our upcoming billing platform upgrade.		Ongoing	Identified
Preventative actions taken to ensure no further issues will occur		Completion date	
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 event detail reports for GENE, GEOL and GENH were examined to identify all ICPs which had a profile change during the audit period.

A typical sample of 13 ICPs with profile changes for GENE and GEOL were reviewed to confirm that there was an actual or permanent estimate reading on the day of the profile change. No profile changes were identified for GENH.

Audit commentary

GENE and GEOL

In the event of a profile change, Genesis uses a validated meter reading or a permanent estimate on the day that the change is effective.

I checked a sample of 13 profile changes including downgrades, addition of generation profiles, and removal of UNM and addition of metered profiles, and found an actual reading had been correctly applied in all instances.

GENH

No profile changes were identified on the event detail report for GENH. All ICPs have the HHR profile.

Audit outcome

Compliant

13. SUBMISSION FORMAT AND TIMING

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

Code reference

Clause 8 Schedule 15.3

Code related audit information

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

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

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

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

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

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

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

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

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

Audit observation

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

Aggregation of NHH volumes is discussed in **section 12.3**, aggregation of HHR volumes is discussed in **section 11.4** and NSP volumes are discussed in **section 12.6**.

Audit commentary

GENE and GEOL

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

- NSP code,
- reconciliation type,
- profile,
- loss category code,
- flow direction,
- dedicated NSP, and
- consumption period.

GENH

GENH submissions are completed by Bluecurrent as GENH's agent. Compliance is recorded in the Bluecurrent audit report.

Generation

Generation submission information is compliant.

Audit outcome

Compliant

13.2. Reporting resolution (Clause 9 Schedule 15.3)

Code reference

Clause 9 Schedule 15.3

Code related audit information

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

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

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

Audit observation

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

Audit commentary

GENE and GEOL

Review of HHR volumes and HHR aggregates submissions for GENE and GEOL confirmed that submission data is rounded to two decimal places.

Review of AV080 NHH volumes reports each for GENE and GEOL confirmed that submission data is rounded to two decimal places.

GENH

Review of AV140 HHR aggregates and AV090 HHR volumes reports confirmed that submission data is rounded to two decimal places.

Generation

Data is correctly rounded to two decimal places.

Audit outcome

Compliant

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

Code reference

Clause 10 Schedule 15.3

Code related audit information

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

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

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

Audit observation

The timeliness of submissions of historic estimate was reviewed in **section 12.2**.

I reviewed a sample of nine AV080 reports each for GENE and GEOL to confirm whether historic estimate requirements were met.

Audit commentary

The quantity of historical estimates is contained in the submission file for GENE and GEOL and is not a separate report.

The three, seven and 14-month revision files were examined for a selection of nine submissions and the tables below show that the thresholds were not met for some NSPs for some revisions. Checks of a sample of ICPs confirmed that the thresholds were not met because readings were unable to be obtained, and permanent estimates were not entered in their place. Read attainment is discussed further in **sections 6.8 - 6.10**. Estimated meter readings are not consistently being made permanent at the 14-month point as required by the Authority, because Genesis only enters permanent estimates where they can be validated against actual validated readings.

With the introduction of Derive+ the way that UML volumes were derived was also changed.

- DUML volumes are retrieved from the Streetlight workings table.
- UML volumes are derived from the daily average kWh value on the registry x the number of days the ICP is to be included in submission.

The initial months since Derive+ was implemented the UML volumes were incorrectly flagged as FE not HE and this resulted in a higher than expected residual FE at 14 months. This incorrectly labelling of UML volumes has now been resolved in Derive+.

GENE

The table below shows the number of NSPs where the threshold was met.

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Jun 2022			359	359
Jul 2022	-	-	329	329
Aug 2022	-	-	329	329
Sep 2022	-	309	-	336
Jan 2023	-	284	-	323
Feb 2023	-	263	-	318
Mar 2023	-	274	-	317
May 2023	215	-	-	325
Jun 2023	174	-	-	330
Jul 2023	192			335

The table below shows that the percentage HE at a summary level for all NSPs is well above the required targets for the seven-month revisions, and on target for the 14-month revisions, but the 3-month revisions are just above or just below the 80% target.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Jun 2022			100%
Jul 2022	-	-	100%
Aug 2022	-	-	100%
Sep 2022	-	96.76%	
Jan 2023	-	94.63%	-
Feb 2023	-	93.18%	-

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Mar 2023	-	95.04%	-
May 2023	82.09%	-	-
Jun 2023	78.70%	-	-
Jul 2023	80.85%	-	-

GEOL

The table below shows the number of NSPs where the threshold was met.

Month	Revision 3 80% Met	Revision 7 90% Met	Revision 14 100% Met	Total
Jun 2022	-	-	218	218
Jul 2022	-	-	220	220
Aug 2022	-	-	196	196
Sep 2022	-	187	-	200
Jan 2023	-	165	-	198
Feb 2023	-	131	-	192
Mar 2023	-	161	-	191
May 2023	114	-	-	196
Jun 2023	67	-	-	196
Jul 2023	85	-	-	203

The table below shows that the percentage HE at a summary level for all NSPs is well above the required targets for the seven-month revisions, and on target for the 14-month revisions, but the 3-month revisions are below the 80% target.

Month	Revision 3 80% Target	Revision 7 90% Target	Revision 14 100% Target
Jun 2022	-	-	100%
Jul 2022	-	-	100%
Aug 2022	-	-	100%
Sep 2022	-	95.85%	-
Jan 2023	-	93.13%	-
Feb 2023	-	90.99%	-
Mar 2023	-	93.90%	-
May 2023	78.48%	-	-
Jun 2023	73.37%	-	-
Jul 2023	74.92%		

Audit outcome

Non-compliant

Non-compliance	Description
<p>Audit Ref: 13.3</p> <p>With: Clause 10 of Schedule 15.3</p> <p>From: 01-Feb-23</p> <p>To: 07-Mar-24</p>	<p>GENE and GEOL</p> <p>Historic estimate thresholds were not met for some revisions.</p> <p>Potential impact: Low</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
Low	<p>The controls are rated as moderate because some improvements can be made to ensure compliance.</p> <p>GENE and GEOL were reasonably close to the target in all cases. The impact is minor; therefore, the audit risk rating is low.</p>

Actions taken to resolve the issue	Completion date	Remedial action status
We will investigate this and work on improving our processes and compliance. This will also be considered during our upcoming billing platform upgrade	01/10/2024	Investigating
Preventative actions taken to ensure no further issues will occur	Completion date	
As Above		

CONCLUSION

Genesis uses three codes: GENE, GENH and GEOL. Unless otherwise specified, the processes and non-compliances described in the report relate to all codes.

Registry and Switching:

Genesis have continued to focus on compliance which has improved results overall. For example, 85% of GENE new connections are now being updated within five business days. This is the best result for GENE to date. Registry discrepancies are being checked and worked more frequently further reducing historic backlogs.

In the switching area, similar issues were found to that in the last audit with known system issues expected to be addressed with the upcoming system change. I found a small number of ICPs that have switched out at the “inactive - new connection in progress” status. ICPs should not switch at this status. If the proposed trader is changing, then the ICP should be returned to “ready”, and the distributor should update the proposed trader. If the ICP has been electrically connected, then any consumption during GENE’s period of supply will not be submitted. I recommend that any ICPs switching at this status are treated as exceptions and investigated.

The other issue identified in switching was that RR reads in Gentrack are not always being recorded in Derive+. The error rate of the sample checked was high and the volumes not small. Genesis have reviewed the logic and believe this has been resolved. They are reviewing all RR reads for the last 14 months to correct any RR reads that have not flowed through to Derive+ correctly.

There are two distributed unmetered load database audit reports overdue. There are nine databases with errors greater than 50,000 kWh per annum. Waka Kotahi is the owner of four of these. I have recommended in their most recent DUML audit report that Genesis engage with the Maintenance Managers as changes made in the field are not being updated in the databases. Genesis is continuing to engage with all of their DUML customers to make improvements in the accuracy of streetlights.

Reading and Reconciliation:

There have been a number of improvements to reading and reconciliation, and 11 of the non-compliances from the previous audit have been cleared. The improvements include:

- unmetered load is now being accurately calculated and submitted,
- the correction process is now more robust,
- identification and management of bridged meters is now much stronger,
- distributed generation reporting is in place and managed,
- no estimates are remaining at 14-months, and
- AMI meter condition information is now being monitored.

Genesis is continuing to refine the validation processes to ensure issues are identified and resolved. Since the analysis was conducted for the audit, further improvements have been made to the bridged and stopped meter correction processes and the distributed generation processes.

Further improvements are underway in the following areas:

- getting NHH meter readings for Spark installations to improve attainment rates,
- ensuring Wells meter readers are trained and confirmed as competent to identify phase failure. Requiring Wells to provide photos of all CT metered meters to enable Genesis to double check for phase failure,
- recording meter reads for disconnection and reconnection, and
- monitoring of field jobs issued but not completed.

All matters raised are shown in the tables below.

The audit raises 41 non-compliances, which is a continued reduction from 47 in the last audit and 49 in the audit prior. 17 recommendations are made. The date of the next audit is determined by the Electricity Authority and is dependent on the level of compliance during this audit. The audit risk rating has reduced from 101 to 88. The table below provides some guidance on this matter and recommends an audit frequency of three months. I have considered this in conjunction with the comments from Genesis and recommend that the next audit be completed in 14 months' time, to reflect the improved level of compliance to ensure the audit is conducted after Genesis intends to go live with the first part of their system change, which is currently scheduled for the end of 2024 to the beginning of 2025.

PARTICIPANT RESPONSE

Genesis would like to thank Veritek for their efforts in performing this audit, and the recommendations that have been made based on this.

We are pleased with the enhancements we have achieved in the last 12 months, which stem from the ongoing attention we have given to refining our processes and improving compliance.

Below are some of the notable improvements since our last audit.

Gathering Raw Meter Data - We have attained a large increase in read achievement in the last 12 months, resulting in a reduction in ICPs not read for more than 4 and 12 months. This is due to establishing extra controls and collaborating with 3rd party providers to overcome access issues.

Bridged Meters - We have further refined our processes and reinforced our controls in relation to managing bridged meters, we have also already implemented some suggestions given as part of this audit.

Maintaining Registry Information - We have seen a significant improvement in the timeliness of registry updates and will continue to work on further improving our compliance performance.

HHR settlement of non-communicating AMI meters - We have refined our processes regarding moving non communicating advanced metered from HHR to RPS.

Distributed Generation - A Review of our processes and controls was completed, and a new process established to ensure that either compliant metering is installed, or ICPs are added to the gifting register.

Submission Computation - There have been several improvements in this area, which has resulted in a significant improvement in compliance compared to our previous audit.

We remain committed to further enhancing our controls to improve compliance and will address the suggestions from this audit. We will also keep working on the implementation of our billing platform / CRM upgrade with a high priority on making sure that this helps to resolve compliance issues that stem from current system constraints. As stated in this audit, we anticipate this to bring significant compliance benefits, especially for our Switching obligations.