



Gas Downstream Reconciliation Performance Audit Final Report

For



Nova Energy Limited

Prepared by: Tara Gannon

Date of Audit: June - August 2026

Date Audit Report Complete: 17 September 2026

Executive Summary

This Performance Audit was conducted at the request of the Gas Industry Company (GIC) in accordance with rule 65 of the Gas (Downstream Reconciliation) Rules 2008 effective from 14 September 2015.

The purpose of this audit is to assess the systems, processes, and performance of Nova Energy Limited (Nova) in terms of compliance with these rules. The audit was conducted in accordance with terms of reference prepared by the GIC, and in accordance with the "Guideline note for rules 65 to 75: the commissioning and carrying out of performance audits and event audits, V3.0" which was published by GIC in June 2013.

During the audit period Nova supplied gas ICPs using the GNVG and MEGA participant codes. By 1 April 2026 all MEGA ICPs were switched to GNVG. Read validation, gas conversion and submission activities for MEGA ICPs use the same Orion and EnergyMarket processes as are used for GNVG ICPs. Nova is continuing to provide revision submissions and maintain historic ICP information for MEGA ICPs. In agreement with GIC, because MEGA has no connected ICPs and no future connected ICPs are expected, I focussed on ensuring that post switch registry information changes were correctly managed, and revision submissions were complete and accurate. I checked all backdated registry information changes affecting submission which occurred after the MEGA ICPs switched to GNVG including network, retailer, status, metering, read renegotiations and switch withdrawals and confirmed they were correctly updated in Orion and accounted for in submission information.

ICP and meter data

Orion-registry data discrepancies for most fields are promptly identified and resolved. A relatively small number of discrepancies were found for all fields apart from the network pressure and allocation groups.

The network pressure differences have been long standing, and they are difficult to resolve as each ICP requires a meter change to correct the pressure. In most cases, they are not causing gas conversion errors outside the maximum permissible limits in NZS 5259.

Allocation groups for non-TOU ICPs are intended to be checked using a report which compares the allocation groups recorded in Orion and the registry, and the annualised consumption. At the time of the 2024 audit, the report was not being regularly reviewed. Following the 2024 audit responsibility for non-TOU allocation groups was assigned, but the process ceased during the audit period due to staffing changes. Nova intends to reinstate the non-TOU allocation group validation process.

Some discrepancies are being identified but not consistently resolved promptly including meter pressure differences, altitude differences, and gas gate differences where the gates do not form part of the same notional delivery point. These errors can result in conversion and/or historic estimate calculation errors which can cause unaccounted for gas and errors outside the maximum permissible errors in NZS 5259. Nova intends to investigate and resolve these issues.

Read attainment and validation

All ICPs are scheduled to be read at least monthly, and the read attainment and validation processes are well designed and operating as expected. Estimates and corrections are well managed, with the exception of pressure corrections which require improvement to ensure they are processed promptly.

Gas conversion

Conversion processes are generally operating as expected. TOU compressibility factors are calculated and applied for TG and TA correctors where conversion is completed in Orion using a static meter pressure from the meters tab in Orion instead of the average measured meter pressure. This is unlikely to cause compressibility factor errors outside the maximum permissible errors in NZS 5259.

Submission generation and validation

Submission information is appropriately validated before it is provided to the allocation agent.

Apart from Orion's historic estimate process which normalises CM and then applies average conversion factors to generate volumes, when rule 35.2 requires the CM to be converted to volumes first, all inaccurate submission data found occurred due to inaccurate information in Orion. Some ICPs had incorrect historic estimate calculated because incorrect SADSV was applied due to an incorrect gate, the ICP and meter had not been created in Orion, or the agreed switch event reading was not applied. Others had incorrect consumption reported because inputs into the gas conversion process were incorrect.

Conclusion

The summary of report findings in the table below shows that Nova's control environment is effective for 13 of the areas evaluated, and acceptable for three areas. Three areas require improvement; allocation group management, metering set up information and non-TOU corrections. Improving the meter pressure correction process will resolve both the set up and correction issues.

11 breach allegations have been made relating to:

- Wells and Powerco readings being transferred by email,
- incorrect ICP, meter and meter reading information in Orion leading to incorrect gas volume information, submission information or allocation groups being applied,
- incorrect gas types being assigned for some gas gates in Orion,
- read attainment thresholds not always being met,
- incorrect gas conversion for some ICPs with correctors,
- Orion's historic estimate calculation process not being performed in the same order as the rules require, and
- initial GAS040 submissions which were not within $\pm 10\%$ or < 200 GJ of the final submission.

I have made two recommendations to improve future compliance, relating to validation of TOU corrector register content codes and gas types. The recommendations are listed in **section 6** and the relevant report sections. Non-compliances and recommendations relating to ICP and meter information, including the timeliness of updates are made in the **Gas Switching and Registry Performance Audit Report**.

Summary of Report Findings

Issue	Section	Control Rating (refer to Appendix 1 for definitions)	Compliance Rating	Comments
Transmission methodology and audit trails	1.6	Effective	Non-compliant	Powerco and Wells use emailed attachments to transfer meter data to Nova. Emailed attachments do not prevent data from being altered without leaving a detailed audit trail, but the risk of unauthorised modification is low.
ICP set up information	2.1	Acceptable	Non-compliant	Nova's new connections are well managed and most ICPs were claimed on time. The registry was not populated within two business days of Nova entering into a contract to supply gas to a consumer for three of 20 new connections claimed more than three business days after the event date. A breach allegation is recorded in section 6 of the 2026 Gas Registry and Switching Performance Audit Report. Most ICP set up information was correctly recorded and most discrepancies are promptly identified and resolved. Some exceptions are recorded for incorrect ICP altitude information which affects submission accuracy.
Metering set up information	2.2	Needs improvement	Non-compliant	Most meter set up information was correctly recorded, but there are some exceptions which affect submission accuracy. Some further improvement is needed, especially for meter pressure differences. All meter pressure differences over ± 1.1 kPa are likely to result in errors outside the maximum permissible errors recorded in NZS 5259 and were corrected during the audit in time for revised submission information to be washed up for all affected periods.
Billing factors	2.3	Acceptable	Non-compliant	The process to calculate billing factors is operating as expected but some incorrect temperature factors and calorific values were applied due to

Issue	Section	Control Rating (refer to Appendix 1 for definitions)	Compliance Rating	Comments
				incorrect gas gates, network pressures, or meter pressures being recorded in Orion. Historic issues relating to incorrect network pressures being recorded in Orion have not been resolved, but processes have improved to ensure that values are updated when meters are changed.
Archiving of reading data	3.1	Effective	Compliant	
Meter interrogation requirements	3.2	Needs improvement	Non-compliant	Allocation groups Validation of non-TOU allocation groups is not currently occurring. 107 ICPs have different allocation groups in Orion and the registry, and 1,183 ICPs have allocation groups which appear inconsistent with their consumption and/or metering information. AG1 and AG2 ICPs where daily readings were not received 19 of the 221 TOU ICPs supplied by Nova did not have actual meter readings recorded for all days for December 2025, January 2026, April 2026 and/or May 2026. AG4 ICPs where monthly readings were not received Eight AG4 ICPs did not consistently have an actual reading recorded each month. The impact of the non-compliance is expected to be minor, and Nova intends to improve its allocation group management processes. Read attainment is high, and good processes are in place. Meters are scheduled to be read at least monthly.
Meter reading requirements	3.3	Effective	Compliant	

Issue	Section	Control Rating (refer to Appendix 1 for definitions)	Compliance Rating	Comments
Non-TOU validation	3.4	Effective	Compliant	
Non-TOU error correction	3.5	Needs improvement	Non-compliant	Correction processes for stopped and faulty meters, multipliers and inactive consumption are operating as expected. Processes for meter pressure corrections require improvement to ensure that corrections are completed promptly. There were 51 ICPs with inaccurate meter pressures recorded in Orion. All nine differences over ± 1.1 kPa and likely to result in errors outside the maximum permissible errors recorded in NZS 5259 and were corrected during the audit in time for revised submission information to be washed up for all affected periods. One of the 42 differences under ± 1.1 kPa has been corrected and Nova intends to resolve the other issues which are listed in Appendix 4.
TOU validation	3.6	Effective	Compliant	
Energy consumption calculation	4	Acceptable	Non-compliant	TOU compressibility factors are calculated and applied for TG and TA correctors where conversion is completed in Orion using a static meter pressure from the meters tab in Orion instead of the average measured meter pressure. This is unlikely to cause compressibility factor errors outside the maximum permissible errors in NZS 5259.
TOU estimation and correction	5.1	Effective	Compliant	
Provision of retailer consumption information	5.2	Effective	Compliant	

Issue	Section	Control Rating (refer to Appendix 1 for definitions)	Compliance Rating	Comments
Initial submission accuracy	5.3	Effective	Non-compliant	Nova did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission each gas gate 34 times for submission periods between July 2022 and April 2025 for GNVG and ten times for submission periods between July 2022 and March 2025 for MEGA. Controls are in place to reduce the quantity of forward estimate and detect inaccurate forward estimates. Meter read attainment processes help to ensure that reads are obtained. Submission information is reviewed before being provided to the allocation agent to identify inaccurate forward estimate.
Forward estimates	5.4	Effective	Compliant	
Historic estimates	5.5	Effective	Non-compliant	Orion's historic estimate process normalises CM and then applies average conversion factors to generate volumes. Rule 35.2 requires the CM to be converted to volumes first, then normalised. Some ICPs had incorrect historic estimate calculated because incorrect SADSV was applied due to an incorrect gate, the ICP and meter had not been created in Orion, or the agreed switch event reading was not applied.
Proportion of HE	5.6	Effective	Compliant	
Billed vs consumption comparison	5.7	Effective	Compliant	
Gas Trading Notifications	5.8	Effective	Compliant	

Persons Involved in This Audit

Auditor:

Tara Gannon

Provera

Nova personnel in the following roles assisted with this audit:

- Metering and Energy Connections Manager,
- Senior Metering and Energy Connections Coordinator,
- Metering and Energy Connections Coordinator,
- Team Leader Reconciliation,
- Energy Analyst,
- Billing Services Manager, and
- Billing Analyst.

Service providers assisting with processes within the audit scope:

Company	Processes
MRS	Meter reading
Wells	Meter reading and TOU downloads
Bluecurrent	TOU downloads and gas conversion for cogeneration ICPs
Powerco	TOU downloads

Contents

Executive Summary	2
Summary of Report Findings	4
Persons Involved in This Audit	8
Contents	9
1. Pre-Audit and Operational Infrastructure Information	11
1.1 Scope of Audit	11
1.2 Audit Approach	11
1.3 General Compliance	12
1.3.1 Summary of Previous Audits	12
1.3.2 Breach Allegations	21
1.4 Provision of Information to the Auditor (rule 69)	26
1.5 Draft Audit Report Comments	26
1.6 Transmission Methodology and Audit Trails (rule 28.4.1)	26
2. Set-up and Maintenance of Information in Systems (Rule 28.2)	28
2.1 ICP Set Up Information	28
2.1.1 New Connections Process	28
2.1.2 Altitude Information	31
2.2 Metering Set-up Information	35
2.3 Billing Factors	42
2.3.1 Temperature Information	42
2.3.2 Calorific Values	45
3. Meter Reading and Validation	47
3.1 Archiving of Register Reading Data (rule 28.4.2)	48
3.2 Retailer to ensure certain metering interrogation requirements are met (rule 29)	48
3.3 Meter Reading Requirements (rules 29.4.3, 29.5 and 40.2)	53
3.4 Non-TOU Validation	55
3.5 Non-TOU Error Correction	57
3.6 TOU Validation	59
4. Energy Consumption Calculation (rule 28.2)	60
5. Estimation and Submission Information	64
5.1 TOU Estimation and Correction (rule 30.3)	64
5.2 Provision of Retailer Consumption Information (rules 30 to 33)	65

5.3	Initial Submission Accuracy (rule 37.2)	67
5.4	Forward Estimates (rules 34 and 36)	75
5.5	Historic Estimates (rules 34 and 35)	75
5.6	Proportion of Historic Estimates (rule 40.1)	80
5.7	Billed vs Consumption Comparison (rule 52)	81
5.8	Gas Trading Notifications (rule 39)	83
6.	Recommendations	83
	Appendix 1 – Control Rating Definitions	85
	Appendix 2 – Impact Rating Definitions	86
	Appendix 3 – Remedial Rating Definitions	87
	Appendix 4 – Meter pressure differences causing pressure factor differences under maximum permissible errors	88
	Appendix 5 – Gas gate differences	90
	Appendix 6 – Network pressure differences causing temperature factor differences over maximum permissible errors	92
	Appendix 7 – Nova Comments	95

1. Pre-Audit and Operational Infrastructure Information

1.1 Scope of Audit

This Performance Audit was conducted at the request of the Gas Industry Company (GIC) in accordance with rule 65 of the Gas (Downstream Reconciliation) Rules 2008 effective from 14 September 2015. Rule 65 is inserted below:

65. Industry body to commission performance audits.

65.1 The industry body must arrange at regular intervals performance audits of the allocation agent and allocation participants.

65.2 The purpose of a performance audit under this rule is to assess in relation to the allocation agent or an allocation participant, as the case may be, -

65.2.1 The performance of the allocation agent or that allocation participant in terms of compliance with these rules; and

65.2.2 The systems and processes of the allocation agent or that allocation participant that have been put in place to enable compliance with these rules.

The audit was conducted in accordance with terms of reference prepared by the GIC, and the “Guideline note for rules 65 to 75 and 80: the commissioning and carrying out of performance audits and event audits, V3.0” which was published by GIC in June 2013.

The audit was completed remotely using Microsoft Teams between 21 and 28 July 2026.

The scope of the audit includes “downstream reconciliation” only. Switching, metering ownership and data collection functions are not within the audit scope.

During the audit period Nova supplied gas ICPs using the GNVG and MEGA participant codes. By 1 April 2026 all MEGA ICPs were switched to GNVG. In agreement with GIC, because MEGA has no connected ICPs and no future connected ICPs are expected and the same systems and processes are used to manage GNVG and MEGA information, I focussed on ensuring that post switch registry information changes were correctly managed, and revision submissions were complete and accurate.

1.2 Audit Approach

As mentioned in **section 1.1** the purpose of this audit is to assess the performance of Nova in terms of compliance with the rules, and the systems and processes that have been put in place to enable compliance with the rules.

This audit has examined the effectiveness of the controls Nova has in place to achieve compliance, and where it has been considered appropriate, sampling has been undertaken to determine compliance.

Where sampling has occurred, this has been conducted using the Auditing Standard 506 (AS-506) which was published by the Institute of Chartered Accountants of New Zealand. I have used my professional judgement to determine the audit method and to select sample sizes, with an objective of ensuring that the results are statistically significant.¹

¹ In statistics, a result is considered statistically significant if it is unlikely to have occurred by chance. (Wikipedia)

Where calculations are performed by Nova’s systems, the algorithm has been checked by using one or two examples as a “sample”. Multiple examples are not required because they will not introduce any different variables.

Where compliance is reliant on manual processes, manual data entry for example, the sample size has been increased to a magnitude that, in my judgement, ensures the result has statistical significance.

Where errors have been found or processes found not to be compliant the materiality of the error or non-conformance has been evaluated.

1.3 General Compliance

1.3.1 Summary of Previous Audits

February 2024 performance audit

The previous audit was completed in February 2024 by Bernie Cross of Crosshaven Consulting. The table below shows the issues found during the audit and whether they have been resolved.

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
Alleged breach 2024-046: One error relating to ICP (0001026382PG8D5) resulted in an altitude factor which was over the maximum permissible error in NZS 5259:2015. Nova Energy gained this ICP from 21 January 2023 and has corrected the altitude value from 27 October 2023 to now align with the registry value.	GNVG	28.2	2.1.2	Awaiting a determination from the market administrator.
Alleged breach 2024-047: Two ICPs were identified with a difference in altitude value recorded between Orion and the registry had an incorrect altitude recorded in Orion. One error relating to ICP (0001000879NG56D) resulted in an altitude factor which was over the maximum permissible error in NZS 5259:2015. MegaTEL gained this ICP from 21 August 2023 and has corrected the altitude value from 27 October 2023 to now align with the registry value.	MEGA	28.2	2.1.2	Determined to be immaterial.
Alleged breach 2024-048: 11 ICPs with meter pressure differences had an incorrect meter pressure recorded in Orion and seven were corrected during the audit. Five of the differences were over the maximum permissible error in NZS 5259:2015.	GNVG	28.2	2.2	Awaiting a determination from the market administrator.

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
For two ICPs the fieldwork paperwork stated that the as found meter pressure did not match the registry meter pressure value and was found to be outside the maximum permissible errors ($\pm 0.9\%$) set out in NZS5259:2015. In both cases the meter pressure correction was only applied from the date of the meter change, and no investigation was undertaken to determine if the previous meter set up was correct.				
Alleged breach 2024-049: 15 ICPs with meter pressure differences had an incorrect meter pressure recorded in. 11 of the differences were over the maximum permissible error in NZS 5259:2015.	MEGA	28.2	2.2	Awaiting a determination from the market administrator.
Alleged breach 2024-050: 12 ICPs were identified as having temperature factor values outside the maximum permissible error ($\pm 0.9\%$) due to the network pressure in Orion being recorded as meter pressure.	GNVG	28.2	2.3.1	Awaiting a determination from the market administrator.
Alleged breach 2024-051: 443 ICPs with annualised consumption over 250 GJ incorrectly assigned to Allocation group 6.	GNVG	29.2.2	3.2	Awaiting a determination from the market administrator.
Alleged breach 2024-052: 189 ICPs with annualised consumption under 250 GJ incorrectly assigned to Allocation group 4.	GNVG	29.3	3.2	Awaiting a determination from the market administrator.
Alleged breach 2024-053: Eight ICPs with annualised consumption over 250 GJ incorrectly assigned to Allocation group 6.	MEGA	29.2.2	3.2	Awaiting a determination from the market administrator.
Alleged breach 2024-054: Four ICPs with annualised consumption under 250 GJ incorrectly assigned to Allocation group 4.	MEGA	29.3	3.2	Awaiting a determination from the market administrator.
Alleged breach 2024-055: Some allocation group 4 ICPs have not been successfully read monthly. Analysis of the allocation group 4 submission volumes relating to final GAS040 revisions for April (36.058 GJ), May (30.748 GJ)	GNVG	29.4.2	3.3	Awaiting a determination from the market administrator.

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
and June 2022(4.943 GJ) identified that forward estimate volumes were present. Nova Energy does not have a separate no read escalation process for allocation group 4 ICPs resulting in the allocation group 6 process being applied to try and obtain one read each 12 months instead of escalating the access issue after one missed read.				
Alleged breach 2024-056: The volume correction for ICP 1001290219QT502 has not been applied – Nova Energy have requested updated paperwork confirming the meter pressure change post meter change.	GNVG	26.2	3.5	Awaiting a determination from the market administrator.
Alleged breach 2024-057: For ICP 0008000038NG8EF, the incorrect register content (TGS instead of TG) was applied in Orion since April 2022. The impact of this error was assessed to be 1.14% or 4.3 TJ per annum. For three ICPs, the difference between the reference meter pressure used in the daily compressibility factor calculation and the daily measured meter pressure resulted in the compressibility factor being outside the $\pm 0.2\%$ maximum permissible error set out in NZS 5259:2015. • 0000026779GNAAE - 0.29% 37.5 GJ pa • 0000073197NAB99 – 0.28% 64.4 GJ pa • 1002112585QTDE3 – 0.051% 54.1 GJ pa For ICP 0078000094PG227, for two days in August 2022 the difference between the reference meter pressure used in the daily compressibility factor calculation and the daily measured meter pressure resulted in the compressibility factor being outside the $\pm 0.2\%$ maximum permissible error set out in NZS 5259:2015. The impact to the submission volumes for these two days was assessed to be 0.3 GJ. Nova Energy applies monthly conversion factors to normalised data, instead of applying the conversion factors for the read period and then profiling consumption between the reconciliation periods. This does not ensure that the conversion factors that applied at the time the gas was consumed are used, and can	GNVG	28.2	4	Awaiting a determination from the market administrator.

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
result conversion factors outside permissible errors, and create differences between the total allocated consumption for a read-to-read period, and the total consumption for the read-to-read period. - ICPs 0000869021QTA8A (read period 16 November to 12 December 2022) and 0001445641QT546 (21 September to 19 December 2022) had a temperature factor difference outside the maximum permissible error for NZS 5259:2015 - ICP 0000072523NA580 had a CV difference outside the maximum permissible error for NZS 5259:2015 for its 18 October to 16 November 2022 read period				
Alleged breach 2024-058: Nova Energy applies monthly conversion factors to normalised data, instead of applying the conversion factors for the read period and then profiling consumption between the reconciliation periods. This does not ensure that the conversion factors that applied at the time the gas was consumed are used, and can result conversion factors outside permissible errors, and create differences between the total allocated consumption for a read-to-read period, and the total consumption for the read-to-read period. I CPs 1002040310QTD15 (read period 13 August to 8 November 2022), 1001262671QT23B (read period 19 November to 20 December 2022) and 0009000259NG7E4 (read period 7 September to 2 November 2022) had temperature factor differences outside the maximum permissible error for NZS 5259:2015.	MEGA	28.2	4	Awaiting a determination from the market administrator.
Alleged breach 2024-059: For four ICPs (0009000150NGAB6 - 1 to 31 August 2021, 0000326561QT81A - 1 to 30 November 2020, 0009000926NGE69 - 1 to 31 May 2021, 0001745054NAEEC - 1 to 30 June 2022), the estimation applied was not consistent with schedule 1 of the Gas Downstream Regulations.	GNVG	Schedule 1	5.1	Awaiting a determination from the market administrator.
Alleged breach 2024-060: Some ICPs were identified in the Initial GAS040 submission	GNVG	26.2	5.2	Awaiting a determination from

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
exception reporting as missing and ICP 0001616881QTDEE remained unresolved from the Interim submission and are not included in the GAS040 Submission. For four ICPs overlapping or gaps in the ICP level data records were identified. The records for ICP 0001015096NGFC5 has overlapping records relating to the current meter ID of 05E880659 (1 to 31 July 2023) but also for a Meter ID of 600657872 (1 to 31 July 2023). 1001299067NG3A5. 4.805 GJ of default consumption is incorrectly recorded against this incorrect meter ID for July 2023. The records for ICP 0001793611QT86B has overlapping records relating to the current meter ID of 22EG0710 (1 to 31 July 2023) but also for a Meter ID of 834100290 (1 to 31 July 2023) which the registry has recorded as being removed on 1 February 2023. 4.805 GJ of default consumption is incorrectly recorded against this incorrect meter ID for July 2023. The records for ICP 0004004320NG2E8 has overlapping records relating to the current meter ID of 99EW3566 (1 to 31 July 2023) but also for a Meter ID of 600587945 (3 to 31 July 2023) which the registry has recorded against ICP 0004004323NGE28. 4.495 GJ of default consumption is incorrectly recorded against this incorrect meter ID for July 2023. The records for ICP 0003026278NG25D has a gap in records for July 2023. One record spans 1 to 4 July 2023 and a second record is for 31 July 2023 only. The period 5 July to 30 July 2023 is missing from submission and there are no switching or status events that could explain this gap in submission data. For ICP 0001409424QTDEB the historic estimate calculation was applied across a time slice one day less than the correct period between the switch date and the first actual read date due to an incorrect meter install date being applied in Orion. Actual TOU data for 0078000094PG227 (gas gate KAP12901) for August 2022 was reviewed as the UFG for this month significantly deviated from historical trends. The TOU data for this ICP showed unexpected volumes for two days (28 & 29 August 2022) which were four times				the market administrator.

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
the expected volumes for this ICP and also exceeded the gas gate volumes for these days (approximately 800 GJ over submission). ICP 0009000969NG312 had installed an additional gas boiler at this ICP and the additional gas load has now exceeded the meters measurement capacity when the ICP was running at full load resulting in some gas volumes not being measured. There was a delay in updating the registry for seven new connections and the consumption information not provided until the final revision.				
Alleged breach 2024-061: For five ICPs overlapping or gaps in the ICP level data records were identified. The records for ICP 0000147781QT387 has overlapping records relating to meter ID of 895294 (1 to 31 July 2023) covering historic and forward estimation records as well and default consumption records. 61.38 GJ of default consumption is incorrectly recorded against this meter ID for July 2023. The records for ICP 0000601981QTED2 has overlapping records relating to meter ID of 151238 (1 to 31 July 2023) covering consumption records. 4.805 GJ of default consumption is incorrectly recorded against this meter ID for July 2023. The records for ICP 1001261664QT739 has overlapping records relating to meter ID of 02C589009 (1 to 31 July 2023) covering historic and forward estimation records as well and default consumption records. 4.805 GJ of default consumption is incorrectly recorded against this meter ID for July 2023. The records for ICP 1001270891NG3ED has overlapping records relating to meter ID of 15EG0006 (1 to 31 July 2023) covering historic and forward estimation records as well and default consumption records. 4.805 GJ of default consumption is incorrectly recorded against this meter ID for July 2023. The records for ICP 0000313861QTB1E has overlapping records relating to the current meter ID of 05E805871 (1 to 31 July 2023) but also for a Meter ID of 05E805871X (1 to 31 July 2023). 0.155 GJ of default consumption is	MEGA	26.2	5.2	Awaiting a determination from the market administrator.

Breach Allegation	Participant	Rules potentially breached	Section in this report	Status
incorrectly recorded against this incorrect meter ID for July 2023. There was a delay in updating the registry for eight new connections and the consumption information not provided until the final revision.				
Alleged breach 2024-062: Nova Energy did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission for each gas gate on 373 occasions for submission periods between February 2020 and July 2022. For three submission periods (May 2022 – 25.18%, June 2022 – 26.85% and July 2022 – 17.05%) the overall submission volumes have exceeded the $\pm 10\%$ threshold.	GNVG	37.2	5.3	Awaiting a determination from the market administrator.
Alleged breach 2024-063: MegaTEL did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission for each gas gate on eight occasions for submission periods between February 2020 and July 2022. For four submission periods (January 2022 – 14.12%, May 2022 – 34.26%, June 2022 – 51.98% and July 2022 – 29.20%) the overall submission volumes have exceeded the $\pm 10\%$ threshold.	MEGA	37.2	5.3	Awaiting a determination from the market administrator.
Alleged breach 2024-064²: Prior period invoice reversals are not reflected in the GAS070 as billed volumes resulting in an overreporting of as billed volumes when revised invoices are produced.	GNVG	52.2.1	5.7	Awaiting a determination from the market administrator.
Alleged breach 2024-064²: The GAS070 report should reflect the quantities in GJ billed in the previous invoice month. Invoices are selected for inclusion based on the billing period, not the invoice date.	MEGA	52.2.1	5.7	Awaiting a determination from the market administrator.

24 recommendations were raised for GNVG, and the table below shows their current status.

² Only one alleged breach was recorded for both GNVG and MEGA for the GAS070 report and r52.2.1 following the previous gas audit, so the same breach number is recorded for both non-compliances.

Section	GNVG Recommendation	Status
2	As part of the meter set up correction process ensure there is a feedback loop to the original user who made the error to ensure users are aware of the need to check that the meter attributes are correctly applied in the initial meter set up. This will reduce the ongoing volume of required remedial meter set up corrections.	Adopted.
2	Work with field service agents to ensure that in all cases where the as found meter pressure does not match the registry meter pressure that these scenarios are escalated so that Nova Energy can investigate and apply any required corrections for the prior periods.	Adopted.
2	Ensure the meter serial number report is actively monitored, and exceptions actioned in a timely manner to ensure the billing, switching and submission processes are not impacted.	Adopted.
2	Implement process to regularly compare meter equipment owner records of the corrector function to Orion's register content code for the ICP to ensure alignment and correct application of gas factors.	Not adopted, and some further validation is recommended.
2	Review meter set up process and exception monitoring for Orion to ensure the correct network pressure is applied for all new meter set ups.	Adopted.
2	To reduce the impact of incorrect Joule-Thomson effect calculations on industry UFG investigate the effort to implement network pressure corrections in the Orion system for all Allocation Group 4 ICPs.	Not adopted, large scale network pressure corrections have not been completed.
2	Review all current exception reporting to ensure any non-TOU ICPs classified as Industrial are included in all exception reporting.	Adopted. TOU ICPs are now separately checked against the registry monthly by the billing team, to ensure that inputs into the gas allocation process are correct.
2	Working with the meter owner for ICP 0000026443GNCC4, determine whether the current GMS configuration operating at network pressure (210kPa) meets NZS5259:2015 maximum permissible errors requirements.	Adopted. The meter owner completed testing during maintenance and confirmed that pressures have been within the maximum permissible errors for ten of the last 11 maintenance checks.
3.2	Review read attainment process for allocation group 4 ICPs to ensure any meter read attainment issues are escalated and resolved as soon as possible.	In progress. The same read attainment process and submission validation is applied for AG4 and AG6, and Nova is working with Bluecurrent to investigate whether AMI metering can be installed for
3.2	Review outstanding allocation group 4 forward estimate volumes for interim revisions as a measure of the reading performance for	

Section	GNVG Recommendation	Status
	allocation group 4 ICPs and ensure the read issues impacting these ICPs are resolved prior to final revisions.	AG4 ICPs with meter read attainment issues.
3.4	Ensure all reported gas meter condition codes are investigated in a timely manner to support the read attainment processes.	Adopted.
3.5	Include Allocation group and customer type fields to the 'All Active Gas Meters with No Consumption' report to enable potential higher volume ICPs to be prioritised for investigation.	All exceptions are investigated and dealt with promptly.
3.5	Prioritise business ICPs for monitoring and investigation of potential gas stopped meters.	
3.6	Work with the TOU data collectors to implement a notification process for time corrections greater than ± 300 seconds enable Nova Energy to review the TOU data and determine if a data correction is also required.	Adopted, meter event and time issues are reported to Nova and reviewed. Minor time differences have a low impact as the minimum time period reported for reconciliation is one day.
3.2	Implement process to confirm missing periods of TOU data with the data collectors to ensure all available data is provided to Nova Energy.	Adopted.
3.6	Once a TOU data gap has been confirmed obtain corrected / uncorrected register reads either side of the data gap from the data collector to enable an accurate calculation of the volume of gas consumed during the affected period.	Adopted.
5.2	Review current process of identifying ICP level exceptions identified during the initial GAS040 submission checks to include a mechanism to confirm all exceptions are resolved prior to the interim submission or the following months initial submission.	Not adopted, a fresh review is completed for each revision and if a previous exception remains it is likely to be re-identified.
5.2	Investigate implementing an additional check for overlapping consumption records in the ICP level GAS040 consumption information.	Not adopted. Because forward estimate of zero is being generated for these overlapping records there is no impact on submission accuracy.
5.2	Investigate implementing an additional check for gaps in consumption records compared to the Registry Retailer, Status and Metering events in the ICP level GAS040 consumption information.	Adopted, the pre-submission validation against registry data using EnergyMarket identifies gaps in submission records.
5.2	Include review of the daily TOU data whenever an ICP is identified in the submission checks as being outside the expected volume thresholds compared to historical consumption patterns or previous submissions.	Adopted, daily data is reviewed when exceptions are identified.

Section	GNVG Recommendation	Status
5.2	Investigate validating daily consumption volumes against contracted MDQ values as part of submission checks to identify daily TOU data outliers for investigation prior to submission.	Not adopted, as MDQ data is not consistently available.
5.2	Investigate implementing post submission UFG monitoring of TOU gas gates to ensure any potential TOU data corruption is identified and resolved in a timely manner.	Not adopted, the energy reconciliation team is focussed on its thorough pre submission checks to identify issues.
5.2	Work with the TOU gas meter owners to implement a validation check of TOU meters design maximum flow rate (Qmax) to the measured hourly flow rate to identify meters that may be close to or are exceeding the meter design maximum flow rate.	Not adopted, as this data is not consistently available.
5.4	Investigate the use of permanent estimates in the read attainment process to ensure all consumption volumes are included in the submission process once a read is finally obtained for ICP with read attainment issues.	Not adopted.

Three recommendations were raised for MEGA, and the table below shows their current status.

Section	MEGA Recommendation	Status
2	As part of the meter set up correction process ensure there is a feedback loop to the original user who made the error to ensure users are aware of the need to check that the meter attributes are correctly applied in the initial meter set up. This will reduce the ongoing volume of required remedial meter set up corrections.	No ICPs are supplied by MEGA.
2.3.1	To reduce the impact of incorrect Joule-Thomson effect calculations on industry UFG investigate the effort to implement network pressure corrections in the Orion system for all Allocation Group 4 ICPs.	No ICPs are supplied by MEGA.
3.2	Recommend that MegaTEL review their no access escalation process to also include email and letters to ensure multiple forms of communication are used in addition to calling and texting the same contact number without success.	No ICPs are supplied by MEGA.

1.3.2 Breach Allegations

Nova has 19 alleged downstream reconciliation breaches recorded by the Market Administrator since April 2024, which all related to the previous full audit. A summary of the breaches is shown in the table below.

Breach notice number	Breach month	Underlying breaches	Rule allegedly breached	Details	Outcome
2024-046	Apr-24	1	28.2	Raised following the previous audits, as discussed in section 1.3.1 .	Awaiting decision from market administrator.
2024-047	Apr-24	2	28.2		No material issues raised.

Breach notice number	Breach month	Underlying breaches	Rule allegedly breached	Details	Outcome
2024-048	Apr-24	11	28.2		Awaiting decision from market administrator.
2024-049	Apr-24	15	28.2		Awaiting decision from market administrator.
2024-050	Apr-24	12	28.2		Awaiting decision from market administrator.
2024-051	Apr-24	443	29.2.2		Awaiting decision from market administrator.
2024-052	Apr-24	189	29.3		Awaiting decision from market administrator.
2024-053	Apr-24	15	29.4.2		Awaiting decision from market administrator.
2024-054	Apr-24	8	29.2.2		Awaiting decision from market administrator.
2024-055	Apr-24	1	29.4.2		Awaiting decision from market administrator.
2024-056	Apr-24	1	26.2		Awaiting decision from market administrator.
2024-057	Apr-24	7	28.2		Awaiting decision from market administrator.
2024-058	Apr-24	3	28.2		Awaiting decision from market administrator.
2024-059	Apr-24	4	Schedule 1		Awaiting decision from market administrator.
2024-060	Apr-24	7	26.2		Awaiting decision from market administrator.
2024-061	Apr-24	5	26.2		Awaiting decision from market administrator.
2024-062	Apr-24	373	37.2		Awaiting decision from market administrator.
2024-063	Apr-24	4	37.2		Awaiting decision from market administrator.
2024-064	Apr-24	1	52.2.1		Awaiting decision from market administrator.

As noted in the Summary of Report Findings, this audit recorded non-conformance in nine sections leading to 11 breach allegations, as shown in the table below.

Breach Allegation	Rule	Section in this report
Powerco and Wells use emailed attachments to transfer meter data to Nova. Emailed attachments do not prevent data from being altered without leaving a detailed audit trail, but the risk of unauthorised modification is low.	28.4.1	1.6
A breach allegation is recorded in section 6 of the 2026 Gas Registry and Switching Performance Audit Report because the registry was not populated within two business days of Nova entering into a contract to supply gas to a consumer for three of 20 new connections claimed more than three business days after the event date.	28.2	2.1.1
For 15 ICPs Orion recorded an incorrect ICP altitude which differed from the registry altitude by more than $\pm 10\text{m}$. Altitude factor errors outside the maximum permissible errors in NZS 5259 have occurred for ICPs 1001295261NG3AD (-3.01%) and 0000027411GN5E9 (+5.55%). Three of a sample of 75 ICPs with non-zero altitudes and one of the 36 ICPs with zero altitudes differed from the Google Earth altitude by more than $\pm 10\text{m}$. None of the differences were outside the maximum permissible errors in NZS 5259.	28.2	2.1.2
Meter serial numbers 14 ICPs had incorrect serial numbers recorded in Orion, and these have been corrected. Meter digits Two ICPs had incorrect meter digits in Orion and have been corrected. Meter pressure There were 51 ICPs with inaccurate meter pressures recorded in Orion. All nine differences over $\pm 1.1\text{ kPa}$ and likely to result in errors outside the maximum permissible errors recorded in NZS 5259 were corrected during the audit in time for revised submission information to be washed up for all affected periods. One of the 42 differences under $\pm 1.1\text{ kPa}$ has been corrected and Nova intends to resolve the other issues which are listed in Appendix 4 . Corrector register content ICPs 0001842361QTBB8 and 0001028461NG515 are likely to have incorrect TOU register content recorded in Orion. Because both ICPs have altitudes of 20m and pressures below 100 kPa, the difference is expected to be within the maximum permissible altitude factor error of $\pm 1.0\%$ set out in NZS 5259.	28.2	2.2
Gas gate 14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion, resulting in another gas gate's temperatures being used to calculate the temperature factor. Network pressure 24,616 ICPs have a different network pressure in Orion and the registry. 110 GAS status non-TOU ICPs have network pressures in Orion which are more than $\pm 400\text{ kPa}$ of the registry network pressure value, and likely to cause temperature factor	28.2	2.3.1

Breach Allegation	Rule	Section in this report
differences outside the maximum permissible errors in NZS 5259. Most ICPs with material differences have been corrected and revised submission information will be washed up where final revisions have not already been completed. 54 ICPs listed in Appendix 6 are still to be corrected. Meter pressure There were 51 ICPs with inaccurate meter pressures recorded in Orion. Ten have been corrected and the 41 to be corrected are listed in Appendix 4. None of the differences are likely to cause temperature factor differences outside the maximum permissible errors in NZS 5259.		
RPR30801 and TAU07001 have ACTC and ACTV ICPs connected and incorrect gas types assigned in Orion. Gas composition values for a different gas type are being applied in the conversion process. None of the differences are likely to cause calorific value differences outside the maximum permissible errors in NZS 5259.	28.2	2.3.2
Allocation groups Validation of non-TOU allocation groups is not currently occurring. 107 ICPs have different allocation groups in Orion and the registry, and 1,168 ICPs have allocation groups which appear inconsistent with their consumption and/or metering information. The impact is likely to be low because the energy reconciliation team ensures that the registry allocation group is applied, all ICPs are scheduled to be read at least monthly regardless of their allocation group, and the ICPs in AG4 or AG6 which were reported to have consumption over 10,000 GJ per annum are likely to have actual consumption below 10,000 GJ per annum. AG1 and AG2 ICPs where daily readings were not received 19 of the 221 TOU ICPs supplied by Nova did not have actual meter readings recorded for all days for December 2025, January 2026, April 2026 and/or May 2026. AG4 ICPs where monthly readings were not received The following AG4 ICPs did not consistently have an actual reading recorded each month: 1002044929QT836, 0000236106QTAAC, 0000321531QT472, 1001260043QT000, 0001004165NG357, 1001298632NG144, 0000012324GN650 and 0001003943NGBE0. The impact of the non-compliance is expected to be minor, and Nova intends to improve its allocation group management processes. Read attainment is high, and good processes are in place. Meters are scheduled to be read at least monthly.	29.4.2	3.2
There were 51 ICPs with inaccurate meter pressures recorded in Orion. All nine differences over ± 1.1 kPa and likely to result in errors outside the maximum permissible errors recorded in NZS 5259 were corrected during the audit in time for revised submission information to be washed up for all affected periods. One of the 42 differences under ± 1.1 kPa has been corrected and Nova intends to resolve the other issues which are listed in Appendix 4 .	26.2	3.5
TOU compressibility factors are calculated and applied for TG and TA correctors where conversion is completed in Orion using a static meter pressure from the meters tab in Orion instead of the average measured meter pressure. This is unlikely to	28.2	4

Breach Allegation	Rule	Section in this report
cause compressibility factor errors outside the maximum permissible errors in NZS 5259.		
Nova did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission each gas gate 34 times for submission periods between July 2022 and April 2025 for GNVG and ten times for submission periods between July 2022 and March 2025 for MEGA. Controls are in place to reduce the quantity of forward estimate and detect inaccurate forward estimates. Meter read attainment processes help to ensure that reads are obtained. Submission information is reviewed before being provided to the allocation agent to identify inaccurate forward estimate.	37.2	5.3
Historic estimate calculation order Orion's historic estimate process normalises CM and then applies average conversion factors to generate volumes. Rule 35.2 requires the CM to be converted to volumes first, then normalised. Incorrect SADS applied due to an incorrect gate 14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion. Different SADS are published for each gas gate, and the impact of the differences on historic estimate calculations is difficult to quantify and will vary from read-to-read period. Switch gains not created in Orion ICPs 0000852081QTC59 and 1002124819QT0FE were not created in Orion on switch in due to a GTN processing issue. The ICPs and meters were immediately added in Orion on discovery during the audit, and investigation found another two affected ICPs, which were added. A new daily check has been implemented from July 2026 to identify ICPs where GNVG is the retailer, but the ICP is not in Orion, to prevent recurrence. Agreed switch event reading not applied ICP 1000508622PG3E7 GNC-12313447 16 April 2026 had a reading of 716 recorded in Orion and 717 on the registry, which Nova intends to correct. The error occurred because the GAC was completed manually on the registry and the process to update the reading did not complete in Orion correctly. For outgoing switch event read renegotiations, the agreed switch event reading is made a misread while the read renegotiation is in progress. The opening reading is temporarily unavailable for use in the submission process, leading to temporarily inaccurate forward and/or historic estimate.	35	5.5

Further breach allegations relating to validation and accuracy of Orion and registry data are made in the **Gas Switching and Registry Performance Audit Report** as many of the Orion and registry data accuracy issues also affect compliance with the switching rules. A breach allegation for one distributor for an incorrect ICP altitude is also recorded.

1.4 Provision of Information to the Auditor (rule 69)

In conducting this audit, the auditor may request any information from Nova, the industry body and any registry participant. Information was provided by Nova in a timely manner in accordance with this rule.

1.5 Draft Audit Report Comments

A draft audit report was provided to the industry body (GIC), the allocation agent, and allocation participants that I considered had an interest in the report. In accordance with rule 70.3 of the 2015 Amendment Version of the Gas (Downstream Reconciliation) Rules 2008, those parties were given an opportunity to comment on the draft audit report and indicate whether they would like their comments attached as an appendix to the final audit report. The following responses were received:

Party	Response	Comments provided	Included in report
Nova Energy	Yes	Yes	Yes. Comments are added to non-compliances and recommendations in the report body.
Powerco	Yes	Yes	Yes. Section 3.2 has been updated to reflect that the AG1 ICPs without a telemetry owner recorded on the registry have internal modems and AG1 is correctly assigned. The number of ICPs which have allocation groups which appear inconsistent with their consumption and/or metering information has been reduced in from 1,183 to 1,168 in the breach allegation.

1.6 Transmission Methodology and Audit Trails (rule 28.4.1)

Processes for data transmission and audit trails are the same for GNVG and MEGA ICPs.

The audit trail was evaluated for all data gathering, validation and processing functions. This rule requires that “The consumption information supplied to the allocation agent in accordance with rules 29 to 40 is transferred in such a manner that it cannot be altered without leaving a detailed audit trail...”

Manual non-TOU readings

Manual readings are received from MRS and Wells via FTP and imported directly into Orion, where they pass through read import validation and are loaded as actual readings against the open ICP and meter register.

AMI readings

AMI readings are received from Bluecurrent for NGCM and POCO meters via FTP and imported into Nova’s datawarehouse. Each non-TOU ICP has a scheduled read date set in Orion. Once the

scheduled read date is reached, SQL server processes are used to identify the datawarehouse reading for the scheduled read date and import it into Orion, where it is validated.

Up to April 2026, Intellihub temporarily ran a pilot program to provide some AMI meter readings for its meters. All Intellihub meters are now manually read.

TOU readings

AG1 ICPs have telemetry and are read remotely by Bluecurrent or Nova's metering team. Bluecurrent provide meter readings via FTP and Nova's metering team operate within the same secure environment as Nova's retail team.

AG2 ICPs do not have telemetry and are read remotely by Powerco for POCO meters and Wells for all other correctors. The files are provided via email.

Allocation submissions

Reminders are scheduled to ensure that submissions are completed on time.

GAS040 files are generated from EnergyMarket using consumption information from Orion and a registry list for the allocation period.

GAS050 files are generated from EnergyMarket using delivered energy information from Bluecurrent for three cogeneration ICPs, GAS050 information from Orion for all other TOU ICPs and registry list information.

Following generation of the final files for each submission, the result set is archived in EnergyMarket and cannot be modified. The submitted files are also imported and checked against the result set to confirm the correct file is submitted. When a revision submission is generated a new result set is created.

Transfer of AG2 data from Wells and Powerco to Nova via email			
Non-compliance	Description		
Report section: 1.6 Rule: 28.4.1 From: 1 April 2024 To: 31 July 2026	Audit history: No Controls: Acceptable Impact: Insignificant	Powerco and Wells use emailed attachments to transfer meter data to Nova. Emailed attachments do not prevent data from being altered without leaving a detailed audit trail, but the risk of unauthorised modification is low.	
Remedial action rating		Remedial timeframe	Remedial comment
In progress		November 2026	Nova will transition the transfer of meter data downloads from Powerco and Wells from email attachments to Secure File Transfer Protocol (SFTP). Implementation is expected to be operational by November 2026.
Audited party comment			
The circumstances of the matters outlined in the breach notice.		Nova has reviewed the matter and identified that the transfer of meter data from Powerco and Wells using email attachments was a	

	long-standing historical practice that had not previously been identified as non-compliant with the audit trail requirements.
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach
Estimate of the impact of the breaches (where admitted).	Nova considers the impact of the breach to be insignificant. There is no evidence that the meter data transferred by email was altered or that the use of email attachments resulted in any material impact on consumption information or downstream reconciliation. This is consistent with the auditor's assessment that the risk of unauthorised modification was low and the impact was insignificant.
What steps or processes were in place to prevent the breaches?	No specific control was in place to ensure that meter data transfers from Powerco and Wells were completed using a secure file transfer method that provided the required detailed audit trail.
What steps have been taken to prevent recurrence?	Nova is arranging for meter data transfers from Powerco and Wells to be completed using Secure File Transfer Protocol (SFTP). The new transfer arrangements are expected to be operational by November 2026. Once implemented, the use of email attachments for these meter data downloads will cease.

2. Set-up and Maintenance of Information in Systems (Rule 28.2)

Every retailer must ensure the conversion of measured volume to volume at standard conditions and the conversion of volume at standard conditions to energy complies with NZS 5259:2015, for metering equipment installed at each consumer installation for which the retailer is the responsible retailer.

Compliance with this rule has been examined in relation to the set-up of ICP, metering and billing information. I have also considered the Gas (Downstream Reconciliation) Rules 2008 Billing factors guideline note v1.0 (Billing Factors Guideline) published by GIC on 30 November 2015 when examining the set up and maintenance of information.

2.1 ICP Set Up Information

By 1 April 2026 all MEGA ICPs were switched to GNVG. As no connected ICPs are supplied, compliance with these obligations was not assessed for MEGA, apart from confirming that backdated changes to ICP information are correctly accounted for in revision submissions.

2.1.1 New Connections Process

New connection process

The process for the connection and activation of new ICPs was examined. Customers or their agents apply to their local network for a new connection, nominating Nova as their retailer.

When the network advises Nova of the new connection, a service request is created in SFI (Salesforce) and the connections team arranges a customer contract. Once a contract is finalised, including the customer accepting any charges associated with the new connection, Nova manually

claims the ICP on the registry at INACT-GNM status, creates the ICP in Orion, and raises a job for meter installation through the meter owner’s portal. The SFI service order is updated as steps are completed, and expected due dates for the next step are added.

Work completion paperwork is received from the network and meter owner via email, and staff monitoring the inbox update the service order, and change the due date to indicate paperwork is received. Nova is considering automating the process to update the SFI service orders when paperwork is received, to improve timeliness.

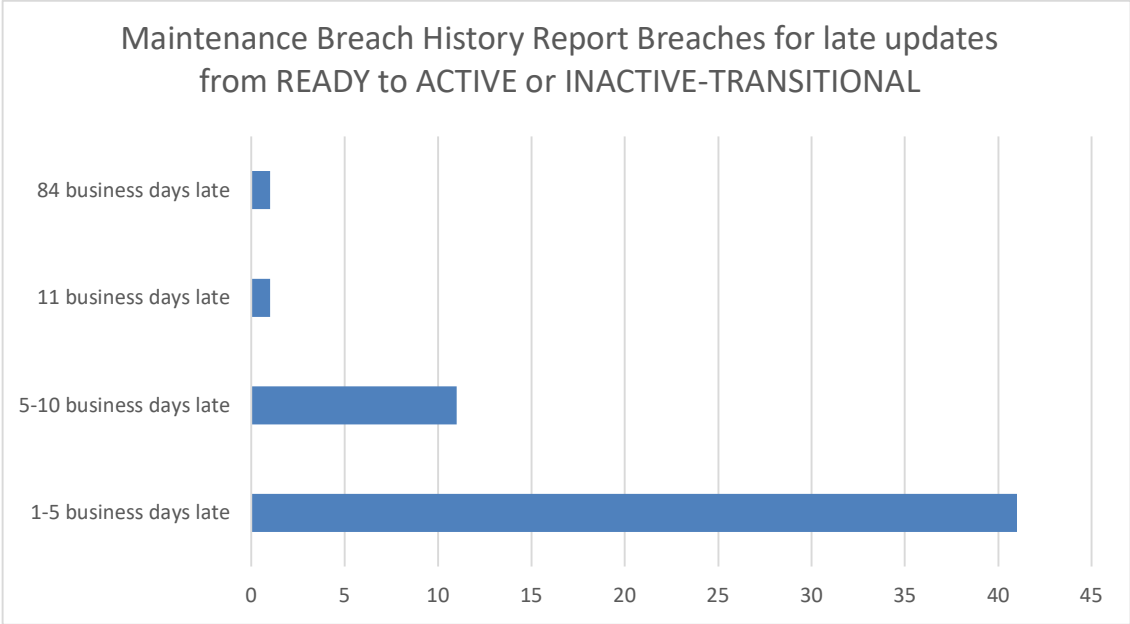
Connections and technical staff work through the service orders and returned paperwork and manually update the ICP status in Orion and the registry, and metering information in Orion.

Overdue SFI service orders are monitored and reported on each morning. Overdue field work is followed up with the meter owner or distributor as necessary.

New connection information timeliness

Consumption information will not be provided to the allocation agent unless the ICP has a metered status and open meter recorded in Orion. Under rule 54, retailers are required to claim the ICP on the registry and move it to an active or inactive status within two business days of entering into an agreement with the customer.

The “Maintenance Breach History Report (RET breaches)” report was examined for the period from 1 April 2024 to 3 June 2026. This report contained 54 ICPs where an update from READY status to ACTIVE-CONTRACTED, ACTIVE-VACANT or INACTIVE-TRANSITIONAL status was made more than two business days after the event date, an improvement from 88 for the period from 1 August 2022 to 31 July 2023. 52 of the updates were made within ten days of the event date, and the other updates were 11 and 84 days after the event date respectively. The median late update was made three business days after the event date, and the average late update was 5.2 business days after the event date.



I checked the records for the 20 latest updates, including all made more than three business days after the event date.

Nova cannot claim an ICP on the registry until the distributor has created the ICP at GIR status and recorded GNVG as the expected retailer:

- for 15 of the late updates Nova claimed the ICP at either ACTC-GAS or INACT-GNM within two days of the network creating the ICP; I have recorded compliance for these as it was not possible for Nova to claim the ICPs sooner,
- two of the updates were on time, and were made within two business days of the customer contract being entered into, and
- three of the 20 updates did not occur within two business days of entering into a contract to supply gas to the consumer and the ICP being at GIR status; the table below shows the ICPs and the reason for the late updates.

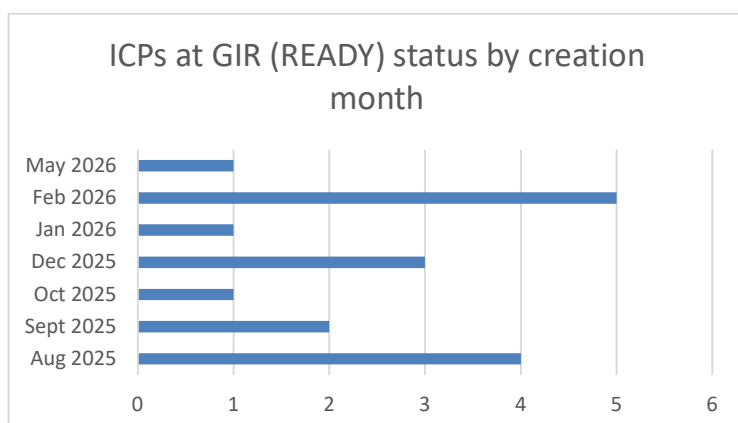
ICP	Event date	Input date	Days overdue	Reason
1000625678PG627	11 March 2026	27 March 2026	10	The contract was entered into on 12 February 2026 and the ICP was created at GIR on 19 March 2026. The claim was late because the service request was not updated in SFI.
1000617897PG724	26 April 2024	6 May 2025	4	The contract was entered into on 8 April 2024 and the ICP was created at GIR on 29 April 2024, but it was not claimed until 6 May 2025.
1001305632NG8CC	25 September 2024	2 October 2024	3	The contract was entered into on 25 September 2024 and the ICP was already at ready, but it was not claimed until 2 October 2024.

For most of the audit period, Nova ran a weekly report of ICPs at READY status where Nova is recorded as the expected retailer. Because ICPs at READY are normally identified through email notifications from distributor and meter owner portals prior to the report being checked, the review frequency was dropped to monthly, and it has not been run for the last two months. From July 2026 onwards Nova intends to complete a monthly review.

The “RSREADY” report was reviewed for 17 May 2026 and contained 27 ICPs at READY status, where Nova was the proposed retailer:

- 12 were claimed after the report was run upon the customer contract being finalised and the customer accepting charges associated with the new connection,
- ICP 1001307141NGD13 will be claimed once a contract is entered into with the customer, and is being monitored by the connections team,
- six connections have been declined by Nova as no agreement has been reached with the customer, and the network has been advised,
- four connections have been placed on hold by the network and Nova also has no agreement with the customer,
- the connection for ICP 1002213364QT00E has been cancelled by the network but the ICP remains at READY status, and ICP 1001306748NG4E4 has been decommissioned, and

- two connections had the expected retailer updated to TRUS.



Non-compliance is recorded in **section 6** of the **2026 Gas Registry and Switching Performance Audit Report** because the registry was not populated within two business days of Nova entering into a contract to supply gas to a consumer for three of 20 new connections claimed more than three business days after the event date.

2.1.2 Altitude Information

Altitude factor calculation

It is a retailer responsibility to comply with NZS 5259 for the conversion of volume to energy. NZS 5259 states that:

- an altitude factor must be applied unless absolute pressure is measured directly by the meter and is used to calculate the pressure factor, and
- the maximum permissible error for the altitude factor is $\pm 1.0\%$ where the meter pressure is less than or equal to 100kPa, and $\pm 0.5\%$ where the meter pressure is greater than 100kPa.

Nova supplies 46 ACTC TOU ICPs where the meter records absolute meter pressure. All other ICPs have an altitude factor applied as part of the conversion process.

I manually calculated the altitude factor for a sample of ICPs with different altitudes and meter pressures and compared the results to the altitude factors calculated by Orion. All the altitude factors were within the permissible error limits in NZS 5259, confirming that the altitude factor calculation process is operating correctly.

When a new ICP is connected, or a switch in occurs, the current ICP altitude on the registry is entered into Orion. On the 21st of each month, a system process compares Orion altitudes to registry altitudes and creates a script to update the altitudes in Orion which is emailed to energy reconciliation and metering team members. The script is only usually executed if there are more than 50 ICPs to be updated, which is typically twice each year. There are no reasonableness checks for ICP altitude.

Altitude accuracy

I compared each ICP's altitude in Orion to the registry list and found 85 ICPs had altitude differences between the Orion and registry altitude.

Distributor	Count of ACTC and ACTV ICPs	ICPs with altitude differences	ICPs with altitude differences over $\pm 10\text{m}$	ICPs with altitude differences over $\pm 20\text{m}$	Maximum difference
GNET	690	1	1	1	-468
NGCD	7,292	4	4	4	254
NOVA	194	-			-
POCO	16,056	63	6	5	62
UNLG	8,561	16	3	1	71
VCTX	8	1	1	1	297
Total	32,801	85	15	12	-468, +297

I checked all 15 differences over $\pm 10\text{m}$ against the Google Earth altitude, and I found the Orion altitude was not within $\pm 10\text{m}$ of the Google Earth altitude. For ICP 0000027411GN5E9 the network altitude was also not within $\pm 10\text{m}$ of the Google Earth altitude, and a network breach is alleged in **section 1.3.2** of the **Gas Registry and Switching Performance Audit**.

The maximum permissible error allowed by NZS 5259 for altitude factors is $\pm 1.0\%$ where meter pressure is less than 100 kPa, and $\pm 0.5\%$ where meter pressure is greater than or equal to 100 kPa. The impact of the incorrect altitudes on the altitude factor was checked. ICPs 1001295261NG3AD and 0000027411GN5E9 have significant altitude differences which will result in altitude factors outside the maximum permissible errors in NZS 5259. ICP 0001014051NG440 is excluded from the analysis below as it is a GD ICP and no submission information is provided.

ICP	Dist	Registry Altitude	Orion Altitude	Google Earth Altitude	Altitude factor Orion	Altitude factor google earth	Difference
1001295261NG3AD	NGCD	282	28	282	0.996793	0.9677	-3.01%
0001425988QT1AF	UNLG	78	7	79	0.9992	0.990973	-0.83%
0002045681QT0DD	POCO	80	18	80	0.997933	0.990815	-0.72%
1000564298PG61D	POCO	165	122	158	0.985993	0.981859	-0.42%
0001002932NG358	NGCD	25	0	34	1	0.996096	-0.39%
0001271871PG8C0	POCO	60	40	62	0.995429	0.992916	-0.25%
1001293165QT2A2	UNLG	37	21	38	0.997595	0.995648	-0.20%
1001302495NG37E	NGCD	23	9	27	0.998969	0.996907	-0.21%
1001295581QT0D3	UNLG	16	2	17	0.999771	0.998053	-0.17%
0001726101QT4ED	POCO	23	10	24	0.998846	0.997231	-0.16%

ICP	Dist	Registry Altitude	Orion Altitude	Google Earth Altitude	Altitude factor Orion	Altitude factor google earth	Difference
0002249531QT234	POCO	72	94	73	0.989207	0.991619	0.24%
1000622317PG76C	POCO	26	56	26	0.99357	0.997015	0.35%
0000027411GN5E9	GNET	15	483	0	0.944545	1	5.55%
0008000051NG94E	NGCD	23	0	23	TOU	TOU	TGS ICPs and within maximum permissible errors

I checked ICP altitudes for a random sample of 75 ACTC and ACTV ICPs for each network with non-zero altitudes on the registry list against Google Earth and found three altitudes were not within $\pm 10\text{m}$. The altitude factor differences were within the maximum permissible errors set out in NZS 5259.

Distributor	Total ACTC and ACTV non-TOU ICPs	ICPs checked	Quantity outside 10m
GNET	684	2	-
NGCD	7,251	16	1
NOVA	169	1	-
POCO	16,031	36	1
UNLG	8,496	20	1
Total	32,631	75	3

ICP	Distributor	Registry Altitude	Orion Altitude	Google Earth Altitude	Altitude factor difference
0007000596NGA98	NGCD	11	11	0	0.13%
0004215344NGD8B	POCO	208	208	222	-0.17%
0001437097QT674	UNLG	2	2	31	-0.33%

I also checked all 36 ICPs with zero altitudes on the registry list against Google Earth, and I found one difference over $\pm 10\text{m}$. The altitude factor difference was within the maximum permissible errors set out in NZS 5259.

Distributor	Total ACTC and ACTV non-TOU ICPs	ICPs with altitude of zero	ICPs checked	Quantity outside 10m
GNET	684	-	-	-
NGCD	7,251	35	35	1
NOVA	169	-	-	-
POCO	16,031	1	1	-
UNLG	8,496	-	-	-
Total	32,631	36	36	1

ICP	Distributor	Registry Altitude	Orion Altitude	Google Earth Altitude	Altitude factor difference
1001298057NG5FD	NGCD	0	0	11	-0.13%

Altitude information			
Non-compliance	Description		
Report section: 2.1.2 Rule: 28.2 From: 1 April 2024 To: 28 July 2026	Audit history: Yes Controls: Acceptable Impact: Moderate	For 15 ICPs Orion recorded an incorrect ICP altitude which differed from the registry altitude by more than $\pm 10\text{m}$. Altitude factor errors outside the maximum permissible errors in NZS 5259 have occurred for ICPs 1001295261NG3AD (-3.01%) and 0000027411GN5E9 (+5.55%). Three of a sample of 75 ICPs with non-zero altitudes and one of the 36 ICPs with zero altitudes differed from the Google Earth altitude by more than $\pm 10\text{m}$. None of the differences were outside the maximum permissible errors in NZS 5259.	
Remedial action rating	Remedial timeframe	Remedial comment	
In Progress	Ongoing. Review and correction of identified altitude discrepancies to be completed through the existing data quality programme, with enhanced monitoring implemented from Q4 2026.	Nova is reviewing and correcting the identified altitude discrepancies and has reinforced the existing altitude validation process. Regular Orion-to-Registry altitude reviews will continue, with identified exceptions investigated and corrected through normal data quality processes.	

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Nova identified discrepancies between altitude information recorded in Orion and the Registry. These differences primarily relate to the way altitude information was historically maintained in Orion and the timing of updates applied through the periodic altitude alignment process. While most altitude values were reasonably accurate, a small number of ICPs contained incorrect altitude information, including two ICPs where the difference resulted in altitude factor errors outside the maximum permissible limits under NZS 5259. Most discrepancies were historical in nature and were identified through the audit's detailed review of Orion, Registry and Google Earth data
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach
Estimate of the impact of the breaches (where admitted).	Nova acknowledges the auditor's assessment of moderate impact. While most identified altitude differences did not result in conversion factor errors outside the permissible limits, two ICPs were found to have altitude factor errors exceeding the NZS 5259 tolerances. The impact was limited to a relatively small number of ICPs and does not reflect broader issues with the operation of Orion's gas conversion calculations, which were confirmed to be functioning correctly when provided with accurate input data.
What steps or processes were in place to prevent the breaches?	Nova had a process to compare Orion altitude information against Registry data and generate update scripts to align discrepancies. This process was normally run periodically and formed part of Nova's broader data validation framework for maintaining ICP information used in gas conversion and reconciliation processes
What steps have been taken to prevent recurrence?	Nova is reviewing and correcting the identified altitude discrepancies and has reinforced the periodic altitude validation process. Additional focus will be placed on ensuring Registry altitude updates are reflected in Orion in a timelier manner, and opportunities to further automate the identification and correction of altitude discrepancies are being assessed. Nova will continue to monitor altitude exceptions through its data quality and reconciliation processes to ensure conversion inputs remain accurate.

2.2 Metering Set-up Information

By 1 April 2026 all MEGA ICPs were switched to GNVG. As no connected ICPs are supplied, compliance with these obligations was not assessed for MEGA, apart from confirming that backdated changes to ICP information are correctly accounted for in revision submissions.

Metering information is determined from the registry and meter paperwork provided by the meter owner. Nova has a set of validation processes and reports to identify and resolve discrepancies, which were demonstrated during the audit.

Jobs for meter changes and installations initiated by Nova are raised via the meter owner's portal and managed internally using SFI service orders. Work completion paperwork is received from the

meter owner via email, and staff monitoring the inbox update the service order, and change the due date to indicate paperwork is received. Nova is considering automating the process to update the SFI service orders when paperwork is received to improve timeliness.

Connections and technical staff work through the service orders and returned paperwork and manually update the metering information in Orion. Overdue SFI service orders are monitored and reported on each morning, and overdue field work is followed up with the meter as necessary.

TOU meters and meter changes are managed by the experienced billing team, and any paperwork associated with TOU meters is forwarded to them for action.

I checked processes to identify and resolve discrepancies for metering data.

Meter serial numbers

Meter serial number discrepancies are identified using the metering and connections team's daily discrepancy reporting, which compares Orion meter serial numbers to the registry. When taking manual meter readings, the meter reader compares the expected meter number to the meter number on site and records a no read against the existing meter, and a new meter record with the reading and new meter number for investigation by Nova.

Meter serial number accuracy

I compared each ACTC and ACTV ICP's meter number in Orion to the registry list and found 32 differences:

- 13 were timing differences, where meter replacement paperwork was received late and Orion was updated once the paperwork was received,
- 13 were errors in the Orion meter serial number, either because the regulator number was incorrectly entered as the serial number, a data entry error was made when entering the meter number, or the meter number was accidentally overtyped or replaced,
- for four ICPs Orion matched the meter replacement paperwork, but the registry value was different; Nova advised the meter owners who updated their records for ICPs 0009000194NGC53 and 0000072155NAD53, and ICPs 1001277922QT63D and 1001283787QT67A are under investigation to confirm the correct value,
- the meter replacement SFI service order for ICP 0002381955QTD1E meter 600893980 on 30 March 2026 was accidentally closed without the meter being updated in Orion, so the change was not processed, and
- ICP 0042114312PG0D5 is under investigation; the meter owner made a backdated change to the meter number from 2009 in May 2025; Nova will update their records once the correct meter details are confirmed.

The confirmed incorrect meter serial numbers have been updated.

Meter digits

Meter digit discrepancies are identified using the metering and connections team's daily discrepancy reporting, which compares Orion meter digits to the registry. When taking manual meter readings, the meter reader compares the expected number of meter digits to the digits for the meter on site and records a no read against the existing meter, and a new meter record with the reading and correct digits for investigation by Nova.

Meter digit accuracy

I compared the meter digits in Orion to the registry list for the 32,537 ACTC and ACTV non-TOU ICPs where the meter number had matched. There were two genuine differences; both were typos when setting up the meters, and both have been corrected.

Network pressure vs meter pressure

As discussed above, network pressure is recorded against the meter as the meter inlet pressure and many ICPs have the meter outlet pressure recorded in this field. Because some network pressures are known to be incorrect, there is no validation of the network pressure or of differences between network and meter pressure.

Network pressure vs meter pressure accuracy

I compared the network and meter pressure on the registry list for the 32,537 ACTC and ACTV non-TOU ICPs where the meter number had matched. There are nine ICPs where the network pressure and the meter pressure are the same and one of these has the “operating at network pressure” flag set to yes, which is a meter owner-maintained field. There are two ICPs with network pressure lower than meter pressure, which are being checked with the meter owner to confirm whether they are correct.

ICP	Meter Pressure	Network pressure
0002287041QTE1C	5	4
0000292441QT0AE	7	3

Meter pressure

Meter (outlet) pressure is stored against the meter tab in Orion and applies for the same date range that the meter is open for. When a new ICP is connected, a switch in occurs or a meter is replaced, the current meter pressure is entered into the meter tab in Orion.

If a meter pressure change or correction occurs which does not coincide with a meter change, Nova completes faux meter change by replacing the existing meter in Orion with a new meter with the same meter number and the correct pressure. The closed meter has an X added as a suffix. These changes are typically made from the day after the last billed read, so backdated changes or corrections are not always applied from the correct date.

Meter pressure discrepancies are identified using the metering and connections team’s daily discrepancy reporting, but they are not consistently actioned and resolved.

Meter pressure accuracy

I compared the meter pressure in Orion to the registry list for each of the 32,537 ACTC and ACTV non-TOU ICPs where the meter number had matched. Two ICPs had timing differences relating to changes, and for one ICP Orion recorded the correct pressure, and the meter owner later updated the registry.

There were 55 genuine pressure discrepancies, all of which appeared on the metering and connection team’s discrepancy reporting. For four ICPs the correct pressure was recorded in Orion, and the meter owner either updated their meter pressure after the report was run or confirmed that a step down regulator was being used. I checked the other differences:

- Nine meter pressure differences over ± 1.1 kPa likely to result in errors outside the maximum permissible errors recorded in NZS 5259 were corrected during the audit in time for revised submission information to be washed up for all affected periods, and
- 42 meter pressure differences under ± 1.1 kPa were unlikely to result in errors outside the maximum permissible errors recorded in NZS 5259; ICP 0047125351PGA6E had undergone a meter pressure correction and the other 41 ICPs are listed in **Appendix 4**. Nova intends to investigate and resolve each of the 41 remaining discrepancies.

I rechecked all the previous audit meter pressure differences and found the ICPs had switched out, and did not appear on the GTN mismatch report, indicating that the Orion meter pressure had been corrected to match the registry before the switch out was completed or the Orion and registry pressure was consistent.

Meter multiplier

There are no comparisons between Orion and the registry to identify meter multiplier differences, all ICPs have a meter multiplier of 1.

Meter multiplier accuracy

I compared the meter multiplier in Orion to the registry list for each of the 32,537 ACTC and ACTV non-TOU ICPs where the meter number had matched. All ICPs had the meter multiplier set to 1 and there were no differences between Orion and the registry.

Meter types and content codes

There were no discrepancies between the registry allocation group and registry profile, and all ICPs with the TOU flag set to Y were in AG1 or AG2. All TOU meters have valid register content codes, and the previous audit exceptions have been resolved. TOU register content codes are not regularly checked against meter owner information.

Recommendation	Audited party comment
Review TOU meter register content codes: periodically validate the TOU register content codes applied against meter owner information to ensure that the correct TOU conversion process is applied.	Nova accepts the recommendation. Monthly validation reporting will be implemented to identify ICPs that may require conversion setting updates following corrector changes or upgrades. Nova will also obtain and review a monthly list of relevant ICPs from the MEP and validate TOU register content information where appropriate to ensure conversion settings remain aligned with metering configurations. Any identified discrepancies will be investigated and corrected promptly.

Meter type and content code accuracy

Nova provided a list of corrector types and their register content, and where the corrector type was listed, I checked that the register content appeared reasonable based on the manufacturer's specifications. In some cases, one corrector model can be configured to have different register contents.

I found two instances where the corrector register content is likely to be incorrect. ICPs 0001842361QTBB8 and 0001028461NG515 have TG register content recorded in Orion, and an altitude adjustment is applied when it is already accounted for in the corrected volume. Because both ICPs have altitudes of 20m and pressures below 100 kPa, the difference expected to be within the maximum permissible altitude factor error of $\pm 1.0\%$ set out in NZS 5259.

Corrector type	TA count	TG count	Comment
EK280	44	1	EK280 correctors are expected to have temperature and absolute pressure register content. ICP 0001842361QTBB8 had TG recorded in Orion.

Corrector type	TA count	TG count	Comment
Macbat 5		1	Macbat 5 correctors are expected to have temperature and absolute pressure register content. ICP 0001028461NG515 had TG recorded in Orion.

There were some other corrector types which I recommend are checked to confirm the correct register content. At a minimum, the isolated ICPs with a different register content to most ICPs with the corrector type should be checked.

Corrector type	TA count	TG count	Comment
Chorus Focus		1	These are expected to be Corus Focus correctors and based on the corrector specifications they are able to record gauge or absolute pressure, and they are also able to correct for supercompressibility.
Corus Focus	1	22	
IMS	1	54	Specifications could not be confirmed.
INSTROMET G250		1	Specifications could not be confirmed.
Mercury	2	75	Configuration may vary.
Mercury Mini-AT		1	

Metering set up information		
Non-compliance	Description	
Report section: 2.2 Rule: 28.2 From: 1 April 2024 To: 28 July 2026	Audit history: Yes Controls: Needs improvement Impact: Moderate	Meter serial numbers 14 ICPs had incorrect serial numbers recorded in Orion, and these have been corrected. Meter digits Two ICPs had incorrect meter digits in Orion and have been corrected. Meter pressure There were 51 ICPs with inaccurate meter pressures recorded in Orion. All nine differences over ± 1.1 kPa and likely to result in errors outside the maximum permissible errors recorded in NZS 5259 were corrected during the audit in time for revised submission information to be washed up for all affected periods. One of the 42 differences under ± 1.1 kPa has been corrected and Nova intends to resolve the other issues which are listed in Appendix 4. Corrector register content ICPs 0001842361QTBB8 and 0001028461NG515 are likely to have incorrect TOU register content recorded in Orion. Because both ICPs have altitudes of 20m and pressures below 100 kPa, the difference expected to be within the

		maximum permissible altitude factor error of $\pm 1.0\%$ set out in NZS 5259.
Remedial action rating	Remedial timeframe	Remedial comment
In progress	Ongoing	Nova has corrected the confirmed meter serial-number and meter-digit errors, all nine material meter-pressure discrepancies, and the TOU register-content errors for ICPs 0001842361QTBB8 and 0001028461NG515. The material pressure corrections were completed in time for affected periods to be revised through the wash-up process. Nova continues to improve metering-data controls by strengthening exception-report review, discrepancy monitoring, escalation, and follow-up. The remaining lower-impact pressure discrepancies are being investigated through the existing exception-management process. Automation opportunities are also being assessed to reduce manual handling and data-entry risk
Audited party comment		
The circumstances of the matters outlined in the breach notice.	The breaches primarily resulted from inaccurate metering data and inconsistent execution of existing processes. Although controls identified discrepancies between Orion, the registry, and meter-owner information, some exceptions were not resolved promptly due to manual data entry, delayed information, and inconsistent follow-up. The audit also identified likely incorrect TOU register-content settings for ICPs 0001842361QTBB8 and 0001028461NG515. Nova reviewed and corrected both settings. The original differences were expected to remain within the applicable $\pm 1.0\%$ maximum permissible altitude-factor error because both ICPs have altitudes of 20 metres and pressures below 100 kPa	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach.	
Estimate of the impact of the breaches (where admitted).	Nova considers the overall impact moderate, consistent with the audit rating. The issues affected a limited portion of the metering	

	population and related mainly to data accuracy and correction timeliness, rather than a widespread control failure. All nine material meter-pressure discrepancies were corrected in time for affected periods to be revised through the wash-up process. The TOU register-content errors were also corrected, with the original differences expected to remain within the applicable permissible error.
What steps or processes were in place to prevent the breaches?	Nova's controls included daily discrepancy reporting, service-order management, validation against registry and meter-owner information, overdue-work monitoring, and operational review by the Metering and Connections Team. These controls generally identified discrepancies, but follow-up was not always timely or consistent. Daily reports compare Orion and registry meter serial numbers, digits, and pressures. TOU meter changes are managed by the billing team, with relevant paperwork forwarded for action. The audit confirmed that all TOU meters had valid register-content codes, although these were not regularly validated against meter-owner information. Feedback is provided when manual data-entry errors are identified.
What steps have been taken to prevent recurrence?	Nova has: • Corrected all confirmed meter serial number and meter digit discrepancies. • Corrected all material meter-pressure discrepancies and the identified TOU register-content discrepancies. • Strengthened the review and prioritisation of exception reports. • Reinforced escalation and follow-up requirements for metering-data exceptions. • Increased monitoring and management oversight of outstanding discrepancies. • Implemented periodic validation of TOU register-content codes against meter-owner records. • Increased focus on reviewing network-pressure and meter-attribute exception reporting. • Continued investigation and resolution of remaining low-impact pressure discrepancies through the existing exception-management process. • Identified automation opportunities to reduce manual handling and data-entry errors and improve the timeliness of data alignment between systems. These actions are intended to improve data accuracy, strengthen control effectiveness, and reduce the risk of similar issues recurring.

2.3 Billing Factors

By 1 April 2026 all MEGA ICPs were switched to GNVG. MEGA ICPs have their readings converted to energy by Orion and use the same temperature and has composition information as GNVG ICPs.

2.3.1 Temperature Information

TOU gas temperature factor adjustment

All TOU meters Nova supplies have temperature corrected register content, and the temperature is taken into account in the corrected readings. No further temperature adjustment occurs.

Measured gas temperatures and corrected volumes are validated, and the process is discussed further in **section 3.6**.

Non-TOU gas temperature factor adjustment

For ICPs where the actual temperature is not measured, NZS 5259 states that temperature may be estimated. Nova has recorded Gas Industry Company's published temperatures against each gas gate in Orion. I matched the values in Orion to the published temperatures for April 2025 to December 2028 and confirmed they were accurate. A daily system process triggers an alert if there is not at least one month's advance temperature data in Orion, to ensure that it can be updated before it is required

Orion calculates the temperature factor using an average ground temperature for the ICP's gas gate which is adjusted for the Joule Thomson Effect where the meter pressure is lower than the network pressure. The temperature is reduced by 0.5 degrees per 100 kPa pressure drop between the network pressure and meter pressure.

I checked Orion temperature factors by reperforming the conversion process for a diverse sample of ICPs and confirmed compliance.

Accuracy of non-TOU temperature factor inputs

Gas gate, network pressure and meter pressure are inputs into the gas temperature factor calculation including the associated Joule Thomson Effect adjustment. If any of the inputs are inaccurate, the temperature factor may also be inaccurate.

Gas gate

Gas gate information recorded in Orion is populated from the registry manually. Gas gate is compared to the registry by the energy reconciliation team as part of their pre-submission checks, and a system process automatically updates the gas gate where the registry gas gate and Orion gas gate are part of the same notional delivery point. Where the gas gates do not have the same notional delivery point no update is completed. Nova plans to investigate and update this.

I compared each ICP's network and gas gate in Orion to the registry list for ACTC and ACTV ICPs, and 14 gate discrepancies were identified for gates which have different notional delivery points. Although the energy reconciliation team has a process to identify ICPs with incorrect gas gates and correct them in submission files, the Orion gas gate determines the gas temperature and gas type for conversion, and the Seasonal Adjusted Daily Shape Values (SADSV) applied to calculate historic estimates. Temperatures used to calculate the temperature factor vary between gas gates, and differences over 2 degrees C are likely to result in maximum permissible temperature factor errors over $\pm 0.7\%$ for in service meters (which is the maximum allowed under NZS 5259). I determined the maximum monthly temperature differences for the affected gas gates were all within ± 0.8 degrees C

and unlikely to cause temperature errors outside maximum permissible errors. The affected ICPs are listed in **Appendix 5**.

Network pressure

Network (inlet) pressure is stored against the meter tab in Orion and applies for the same date range that the meter is open for. When a new ICP is connected, a switch in occurs or a meter is replaced, the current ICP network pressure is entered into the meter tab in Orion. Apart from this, network pressure is not validated or updated.

Before Orion began adjusting temperatures for the Joule Thomson Effect, the network pressure was not used by Orion, and the network (inlet) pressure field was populated with the meter pressure. Some ICPs supplied for extended periods which have not undergone recent meter changes still have the meter pressure populated as the network (inlet) pressure. To correct this, each affected ICP would need to have its meter removed and replaced in Orion, and the new meter updated with the correct network pressure, which is not practical.

I compared each ACTC and ACTV ICP's network pressure in Orion to the registry list and found 24,616 of the 32,801 ICPs had different network pressures recorded in Orion and the registry.

The differences were reviewed to determine the causes and impact on gas conversion and reconciliation. The Joule Thomson Effect reduces the gas temperature by 0.5 degrees for every 100 kPa in pressure drop, therefore drops of over 400 kPa or 2 degrees are likely to result in maximum permissible temperature factor errors over $\pm 0.7\%$ for in service meters (which is the maximum allowed under NZS 5259).

Discrepancy type	Quantity	Impact
Non-TOU network pressure differences where Orion network pressure = meter pressure	22,816	These differences are likely to be for ICPs supplied by Nova with the same meter since before the Joule Thomson Effect was applied. 45 of the ICPs have network pressure differences over ± 400 kPa, which had not been updated as paperwork confirming the network pressure change was not received. Most ICPs were corrected during the audit and revised submission information will be washed up where final revisions have not already been completed. The nine ICPs still to be corrected are listed in Appendix 6 .
Network pressure differences where Orion network pressure $\neq$ meter pressure	1,788	65 of the ICPs have network pressure differences over ± 400 kPa, which had not been updated as paperwork confirming the network pressure change was not received. Some were corrected during the audit and revised submission information will be washed up where final revisions have not already been completed. The 45 ICPs still to be corrected are listed in Appendix 6 .
TOU ICPs	12	All TOU ICPs supplied have temperature adjusted for by their corrector. The TOU ICPs with network pressure differences over ± 400 kPa only use temperature information as an input into the compressibility calculation. The impact of the Joule Thomson Effect on this calculation is small and unlikely to result in differences outside the maximum permissible errors.

I rechecked the ICPs where non-compliance was recorded for incorrect network pressures in the previous audit and found five were resolved, and three were switched out before they were resolved. The previous audit exception for 0001787571QTAF9 is unresolved and included in the tables in **Appendix 6**. The other exception remains unresolved and is unlikely to have a material impact on the pressure factor:

ICP	Network pressure	Orion network pressure	Network pressure difference	Orion meter pressure
11000589557PG673	315	2.5	312.5	2.5

Meter pressure

As discussed in **section 2.2**, there were:

- Nine meter pressure differences over ± 1.1 kPa likely to result in errors outside the maximum permissible errors recorded in NZS 5259 which were corrected during the audit in time for revised submission information to be washed up for all affected periods, and
- 42 meter pressure differences under ± 1.1 kPa unlikely to result in errors outside the maximum permissible errors recorded in NZS 5259; ICP 0047125351PGA6E had undergone a meter pressure correction and the other 41 ICPs are listed in **Appendix 4**. Nova intends to investigate and resolve each of the 41 remaining discrepancies.

There are also two ICPs with network pressure lower than meter pressure, which are being checked with the meter owner to confirm whether they are correct.

None of the differences will result in temperature factor errors outside maximum permissible errors.

Temperature information		
Non-compliance	Description	
Report section: 2.3.1 Rule: 28.2 From: 1 April 2024 To: 28 July 2026	Audit history: Yes Controls: Acceptable Impact: Insignificant	Gas gate 14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion, resulting in another gas gate's temperatures being used to calculate the temperature factor. Network pressure 24,616 ICPs have a different network pressure in Orion and the registry. 110 GAS status non-TOU ICPs have network pressures in Orion which are more than ± 400 kPa of the registry network pressure value, and likely to cause temperature factor differences outside the maximum permissible errors in NZS 5259. Most ICPs with material differences have been corrected and revised submission information will be washed up where final revisions have not already been completed. 54 ICPs listed in Appendix 6 are still to be corrected. Meter pressure There were 51 ICPs with inaccurate meter pressures recorded in Orion. Ten have been corrected and the 41 to be corrected are listed in Appendix 4. None of the differences are likely to cause temperature factor differences outside the maximum permissible errors in NZS 5259.

Remedial action rating	Remedial timeframe	Remedial comment
In progress	Gas gate corrections and key network pressure corrections are complete. Remainder will be completed by 31/10/2026	Process review underway. System and reporting enhancements are being implemented to address identified control gaps, with completion expected by the stated timeframe.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	The identified exceptions were caused by network pressure values being incorrectly populated in Orion, resulting in inaccurate application of the Joule-Thomson adjustment for a small number of ICPs.	
Whether or not the participant admits or disputes that it is in breach.	Nova accepts the breach	
Estimate of the impact of the breaches (where admitted).	Insignificant. Gas gate corrections have been completed and the assessed impact on allocated volumes is low.	
What steps or processes were in place to prevent the breaches?	Exception reporting was in place to identify discrepancies between registry and Orion network pressure values, including monitoring of potential Joule-Thomson impacts.	
What steps have been taken to prevent recurrence?	Gas gate corrections have been completed and network pressure corrections are being progressively applied. A significant number of corrections have already been completed, with the remaining updates scheduled to be completed by 31 October 2026. Enhancements have also been made to monitoring and exception reporting to improve timely identification and resolution of discrepancies. Based on the audit finding about incorrect network pressure values affecting temperature factors and the recommendation to improve monitoring and corrections.	

2.3.2 Calorific Values

TOU data for cogeneration ICPs

Cogeneration allocation group 1 ICPs 0008000249NGBF0, 0008000300NGE00 and 1000519831PGAC0 are not managed in Orion. Bluecurrent obtains the meter readings, validates them and converts them to energy using its Flow2E system, and Nova imports the converted delivered energy values into EnergyMarket for inclusion in the GAS050.

Bluecurrent manually download calorific values from OATIS daily and enter them into Flow2E for use in the gas conversion process. Because gas composition values are published the day after measurement, overnight Flow2e creates and loads estimated gas composition values for the current day based on the previous day. The values are replaced once the actual data is published the day after it is measured. Bluecurrent also downloads and replaces gas composition data for the whole month at the end of each month to ensure any changes to the published data are reflected.

Review of a sample of TOU conversion data confirmed that the calorific values applied by Bluecurrent were consistent with the data published on OATIS for the corresponding gas type.

All other TOU and non-TOU ICPs

Nova imports gas composition information from OATIS into Orion for each gas type. Each day is initially populated with an average value, which is the same for all gas types, before replaced by the actual figures from OATIS once they are available. An automated email is sent to the billing and reconciliation teams if calorific values has not been added for the previous day.

I matched the values in Orion to OATIS information from March 2025 to May 2026 and confirmed they were accurate.

I checked the mapping of gas gates to gas types against OATIS and found the following differences:

Gas Gate	Orion gas type region	OATIS gas type region	GAS status GN non-TOU ICPs	GAS status GN TOU ICPs	Difference in gas composition values between gas types
RPR30801	BOP B	C	8	-	Yes
TAU07001	BOP B	V	437	-	Yes
IGW11901	South N	U	156	1	No
BRO36301	BOP B	G	-	-	No ICPs
RPR30802	BOP B	C	-	-	No ICPs
TCC00201	North X	K	-	-	No ICPs

There is only an impact on gas conversion where the gas composition values differ, and ICPs connected to the gate have allocation submissions provided by Nova. The impact will vary from read-to-read period, and review of historic OATIS data found that the differences between gas types B and C, and B and V are within the $\pm 0.5\%$ maximum permissible errors as the gas gates are all downstream of the Pokuru 1 delivery point.

Recommendation	Audited party comment
Gas type corrections: Correct the gas type mapping in Orion for RPR30801, TAU07001, IGW11901, BRO36301, RPR30802 and TCC00201.	Nova accepts the recommendation. The identified gas-type mappings will be reviewed and corrected in Orion, with the remaining mappings validated to ensure they align with OATIS.

Calorific values		
Non-compliance	Description	
Report section: 2.3.2 Rule: 28.2 From: 1 April 2024 To: 28 July 2026	Audit history: No Controls: Acceptable Impact: Insignificant	RPR30801 and TAU07001 have ACTC and ACTV ICPs connected and incorrect gas types assigned in Orion. Gas composition values for a different gas type are being applied in the conversion process. None of the differences are likely to cause calorific value differences outside the maximum permissible errors in NZS 5259.
Remedial action rating	Remedial timeframe	Remedial comment
In progress	Ongoing	Nova is reviewing and correcting the identified gas-type mappings in Orion. The remaining mappings will also be validated to ensure accurate gas composition values are applied.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	Incorrect gas-type mappings in Orion resulted in gas composition values for a different gas type being applied to ICPs connected to RPR30801 and TAU07001.	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach.	
Estimate of the impact of the breaches (where admitted).	Nova considers the impact to be insignificant. The auditor confirmed that the resulting calorific-value differences were within the maximum permissible errors under NZS 5259.	
What steps or processes were in place to prevent the breaches?	Gas composition information was imported from OATIS into Orion, with automated monitoring for missing daily calorific values.	
What steps have been taken to prevent recurrence?	Nova is reviewing and correcting the identified mappings and will validate gas-gate mappings against OATIS to improve ongoing accuracy.	

3. Meter Reading and Validation

By 1 April 2026 all MEGA ICPs were switched to GNVG. As no connected ICPs are supplied, and no new scheduled readings are received or required to be validated, compliance with these obligations was not assessed for MEGA. The Nova read archiving and validation processes also apply for MEGA.

3.1 Archiving of Register Reading Data (rule 28.4.2)

Retailers are required to keep register reading data for a period of 30 months. Data was examined during the audit, and I confirmed that Nova securely retains readings for more than 30 months

Manual readings from MRS and Wells

Non-TOU meters are read manually, and readings are provided by MRS and Wells. Nova provided a sample of MRS and Wells raw meter reading data files, and I matched a sample of 20 readings from these files to Orion which confirmed the process.

AMI readings

AMI readings are received from Bluecurrent for NGCM and POCO meters and imported into Nova's datawarehouse. Each non-TOU ICP has a scheduled read date set in Orion. Once the scheduled read date is reached, SQL server processes are used to identify the datawarehouse reading for the scheduled read date and import it into Orion. Up to April 2026, Intellihub temporarily ran a pilot program to provide some AMI meter readings for its meters. All Intellihub meters are now manually read.

Nova provided a sample of raw AMI meter reading data files, and I matched a sample of six readings from these files to Orion which confirmed the process.

TOU readings

AG1 ICPs have telemetry and are read remotely by Bluecurrent or Nova's metering team, and AG2 ICPs do not have telemetry and are read by Powerco (for Powerco correctors) and Wells for all other correctors. The meter readings are retained indefinitely.

3.2 Retailer to ensure certain metering interrogation requirements are met (rule 29)

This rule requires that for consumer installations where the actual or expected consumption is:

- greater than 10 TJ pa, a TOU meter will be installed and the ICP will be assigned to AG1 or AG2 depending on whether telemetry is present; daily meter readings are required, and
- between 250 GJ and 10 TJ pa, a non-TOU meter will be installed and the ICP will be assigned to AG4 and read monthly.

Other installations with non-TOU metering not in AG4 should be assigned to AG5 or AG6.

Assignment of allocation groups

Allocation groups for TOU ICPs are managed by the billing team, who also ensure that the ICPs are assigned to the correct meter reader. The correct group is assigned on switch in and is updated (along with the meter reader if necessary) if the telemetry flag changes.

Allocation groups for non-TOU ICPs are intended to be checked using a report which compares the allocation groups recorded in Orion and the registry, and the annualised consumption. At the time of the 2024 audit, the report was not being regularly reviewed. Following the 2024 audit responsibility for non-TOU allocation groups was assigned, but the process ceased during the audit period due to staffing changes. Nova intends to reinstate the non-TOU allocation group validation process.

Allocation group accuracy

I compared each ACTC and ACTV allocation group in Orion for 5 June 2026 to a registry list for 3 June 2026. 107 ICPs supplied by GNVG had allocation group differences:

Discrepancy	Count ICPs	Comment
AG4 in the registry AG6 in Orion	25	The energy reconciliation team ensures that the registry allocation group is applied for submission, and there is no impact on compliance with the meter read attainment requirements because all ICPs are scheduled to be read monthly.
AG6 in the registry AG4 in Orion	10	
AG6 in the registry with RPS ³ in Orion	72	

I validated the registry allocation groups for ACTC and ACTV ICPs on the registry list against the average daily consumption recorded in Orion and metering information, and found 1,183 ICPs which may be in an incorrect allocation group:

Discrepancy	Count ICPs ⁴	Comment
AG6 with consumption over 250 GJ	755	Because all ICPs are scheduled to be read monthly, incorrect allocation groups do not have a direct impact on read attainment. The ICPs should have their allocation groups checked and updated as necessary.
AG4 with consumption under 250 GJ	393	
AG6 with consumption over 10,000 GJ	9	Nine ICPs which switched to GNVG from MEGA effective from 1 April 2026 are recorded with annual consumption over 10,000 GJ in information provided for this audit. It appears that the estimated consumption information is likely to be overstated; issues sometimes occur around meter rollover add factors where ICPs move between codes.
AG4 with consumption over 10,000 GJ	2	ICP 0000075541QT86F switched to GNVG from MEGA effective from 1 April 2026 and ICP 0001005778NG107 has undergone a meter change in the last year. Both are recorded with annual consumption over 10,000 GJ in information provided for this audit. It appears that the estimated consumption information is likely to be overstated for ICP 0000075541QT86F; issues sometimes occur around meter rollover add factors where ICPs move between codes. ICP 0001005778NG107 is close to the threshold at 10,410 GJ.
AG1 without TOU metering with telemetry	15	These ICPs were checked, and Powerco confirmed that they have a modem internal to the corrector and AG1 is correctly assigned.
AG2 without TOU metering which does not have telemetry	9	The ICPs should be checked to confirm whether they have telemetry and the allocation group updated as necessary.

³ RPS is an electricity reconciliation profile.

⁴ ICPs which are settled with GN ICP type.

All ICPs with the TOU flag set to Y were in AG1 or AG2. There were no discrepancies between the registry allocation group and registry profile.

Non-compliance is recorded for the 107 ICPs have different allocation groups in Orion and the registry, and 1,183 ICPs have allocation groups which appear inconsistent with their consumption and/or metering information. The following recommendations to improve allocation group processes are made in **section 8** of the **Gas Registry and Switching Performance Audit Report**.

Recommendation
Review AG4 and AG6 ICPs which may have estimated consumption over 10,000 GJ per annum: ICPs 0000075541QT86F, 0001424895QTCFD, 0000542321QT906, 0002027806NG988, 0044103550PG7EB, 0001432267QTB44, 0002282851QT39C, 0003475134NG8CE, 0003008311NGBF5 and 1001245680NG502 switched from MEGA to GNVG effective 1 April 2026 and are not expected to have annual consumption over 10,000 GJ. The ICPs should be checked to determine whether the high consumption is correct and Orion adjusted as necessary. ICP 0001005778NG107 is close to the threshold at 10,410 GJ and underwent a meter change during the past year. It should be checked to determine whether it is genuinely expected to use more than 10,000 GJ per annum. If any of the ICPs are genuinely consuming or expected to consume more than 10,000 GJ per annum they must be upgraded to TOU metering within three months and have their allocation group corrected.
Review AG4 ICPs with consumption under 250 GJ per annum and AG6 ICPs with consumption over 250 GJ: If the consumption is correct, consider moving the ICPs to the correct allocation group in Orion and on the registry. Nova may elect to leave ICPs close to the threshold in their current allocation group.
Review AG2 ICPs with telemetry owners: Check for AG2 ICPs with a telemetry owner on the registry and update the allocation group to AG1 if they are confirmed to have telemetry.

Assignment of TOU meter reading rounds

All TOU ICPs are read by Wells, Powerco or Bluecurrent. The billing team is made aware of TOU switch gains before switching files are issued so that they can ensure that meter reading arrangements are in place.

AG1 ICPs have telemetry and are read remotely by Bluecurrent or Nova's metering team, and AG2 ICPs do not have telemetry and are read remotely by Powerco (for Powerco correctors) and Wells for all other correctors.

Assignment of non-TOU meter reading rounds

Under rule 29.4.2 all ICPs with consumption between 250 GJ and 10 TJ must have meter readings recorded monthly and must be in AG4. All ICPs with non-TOU meters must have a reading recorded at least once every 12 months unless exceptional circumstances prevent interrogation. Compliance with this requirement is discussed in detail in **section 3.3**.

AG4 and AG6 non-TOU ICPs are read by Wells, MRS or Bluecurrent and are scheduled to be read monthly. The previous audit recommended that Nova review the read attainment process and forward estimate remaining in revisions for AG4 ICPs to ensure any meter read attainment issues are escalated and resolved as soon as possible. The same read attainment process and submission validation is applied for AG4 and AG6, and Nova is working with Bluecurrent to investigate whether AMI metering can be installed for AG4 ICPs with meter read attainment issues.

Obtaining meter register readings for AG1 and AG2 ICPs

Nova is required to obtain daily readings for AG1 and AG2 ICPs. All TOU ICPs are scheduled for daily readings to be provided at least monthly. The previous audit recommendation to confirm missing periods of TOU data with the data collectors to ensure all available data is provided to Nova Energy has been adopted.

All TOU ICPs receive regular readings, but estimates are sometimes required where actual readings are not available for submission. These are replaced with actual data if it becomes available later. The following ICPs had estimated data in April and/or May 2026:

ICP	April 2026 estimates	May 2026 estimates	Allocation group
0000073192NA6D6	30	31	1
0000073254NA3B5	30	31	1
1000519831PGAC0	30	31	1
0008000249NGBF0	30		1
0000316011QT96E		1	1
1001157867QT5AA	6		2
0000529221QTDBA	30		2
0001432139QT3D4	30		2
0001833601QTA54	30		2
1001100566QTB3	30		2
0000001801QT3FB	30	13	2
0009000915NG551		1	2
1001268670QT03E		5	2
1001287625NG7A2		31	2

In addition to this, the following ICPs had temporary estimates created where actual readings were not available for the initial submission: 0001745054NAEEC for January 2026, and 0000026779GNAAE, 0000190021QTCAB, 0000224931QTB32 and 0000529221QTDBA for December 2025.

I reviewed a sample of the unread ICPs and found that corrective action was taken to resolve the issues preventing readings from being obtained, including meter faults.

Obtaining register readings for AG4 ICPs

Nova is required to obtain monthly readings for non-TOU ICPs with consumption between 250 and 10,000 GJ p.a. (AG4), and schedules monthly readings for all ICPs.

Nova provided a meter information extract showing the last actual read date for all connected ICPs. I checked the five AG4 ICPs which had a last actual read date that was not within the last month and found that four were receiving monthly readings, and the last actual read date provided related to their old meter. I also checked 29 of the 363 AG4 ICPs which had a null last actual read date, and found the nulls were usually recorded because the ICPs were billed on an end of month estimate

reading and only these readings were considered when creating the data extract for the audit. I found 25 of the 29 ICPs checked were receiving regular monthly readings but occasionally readings could not be obtained, three ICPs were receiving regular customer photo readings, and one had missing readings due to a backdated meter change. The following AG4 ICPs did not consistently have an actual reading recorded each month: 1002044929QT836, 0000236106QTAAC, 0000321531QT472, 1001260043QT000, 0001004165NG357, 1001298632NG144, 0000012324GN650 and 0001003943NGBE0.

Nova has found that the 2G and 3G cellular network shutdowns have affected their attainment of read data for some AMI meters, which have been moved to manual routes.

Compliance with the requirement to obtain a reading every 12 months for all non-TOU ICPs and obtain a reading every four months for 90% of non-TOU ICPs is assessed in **section 3.3**.

Meter reading requirements		
Non-compliance	Description	
Report section: 3.2 Rule: 29.4.2 From: 1 April 2024 To: 28 July 2026	Audit history: Yes Controls: Needs improvement Impact: Minor	Allocation groups Validation of non-TOU allocation groups is not currently occurring. 107 ICPs have different allocation groups in Orion and the registry, and 1,168 ICPs have allocation groups which appear inconsistent with their consumption and/or metering information. The impact is likely to be low because the energy reconciliation team ensures that the registry allocation group is applied, all ICPs are scheduled to be read at least monthly regardless of their allocation group, and the ICPs in AG4 or AG6 which were reported to have consumption over 10,000 GJ per annum are likely to have actual consumption below 10,000 GJ per annum. AG1 and AG2 ICPs where daily readings were not received 19 of the 221 TOU ICPs supplied by Nova did not have actual meter readings recorded for all days for December 2025, January 2026, April 2026 and/or May 2026. AG4 ICPs where monthly readings were not received The following AG4 ICPs did not consistently have an actual reading recorded each month: 1002044929QT836, 0000236106QTAAC, 0000321531QT472, 1001260043QT000, 0001004165NG357, 1001298632NG144, 0000012324GN650 and 0001003943NGBE0. The impact of the non-compliance is expected to be minor, and Nova intends to improve its allocation group management processes. Read attainment is high, and good processes are in place. Meters are scheduled to be read at least monthly.
Remedial action rating	Remedial timeframe	Remedial comment
In Progress	Ongoing	Following the review, a higher priority has been placed on actioning the exception reporting

		suite. The Metering and Connections team will continue to monitor, investigate and resolve identified discrepancies to ensure metering records remain accurate and compliant. Allocation group validation activities have also been reinstated.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	Nova identified that the non-TOU allocation group validation process was not consistently completed during the audit period following staffing changes. While all ICPs continued to be scheduled for monthly readings and read attainment remained high, a number of allocation group discrepancies and exceptions accumulated and were not reviewed within expected timeframes. In addition, a small number of AG1, AG2 and AG4 ICPs did not achieve the expected reading frequency in the periods identified by the audit.	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach	
Estimate of the impact of the breaches (where admitted).	Nova considers the impact to be minor, consistent with the auditor's assessment. The identified issues did not indicate a systemic failure of the meter reading process, and the auditor noted that read attainment remained high. In addition, the energy reconciliation team applies the registry allocation group for submission purposes, reducing the impact of allocation group discrepancies on downstream reconciliation	
What steps or processes were in place to prevent the breaches?	Nova had allocation group validation reporting, monthly meter reading schedules, read attainment monitoring, and exception reporting processes in place. These controls identified many of the exceptions; however, allocation group validation activities were not consistently maintained during the audit period due to resource and staffing changes	
What steps have been taken to prevent recurrence?	Following the review, a higher priority has been placed on actioning the exception reporting suite. The Metering and Connections team will continue to monitor, investigate and resolve identified discrepancies to ensure metering records remain accurate and compliant. The non-TOU allocation group validation process has been reinstated and identified exceptions will be reviewed and corrected as required.	

3.3 Meter Reading Requirements (rules 29.4.3, 29.5 and 40.2)

Meter read attainment

All consumer installations with non-TOU meters must have validated register readings recorded at least once every 12 months unless exceptional circumstances prevent such an interrogation. The rules define exceptional circumstances as circumstances which (in the opinion of the industry body)

prevent a retailer from accessing metering equipment despite the best endeavours of the retailer. 90% of consumer installations with non-TOU meters must have a validated reading every four months.

All AG6 consumer installations with non-TOU meters must have validated register readings recorded at least once every 12 months unless exceptional circumstances prevent such an interrogation. 90% of consumer installations with non-TOU meters must have a validated reading every four months.

All non-TOU ICPs are scheduled to be read at least monthly by Wells or MRS or have a monthly AMI meter reading imported into Orion unless there are safety issues which prevent the meter from being read. ICPs which do not receive readings are managed using a daily report of unread ICPs, which is reviewed several times per month:

- ICPs unread for three months or more are grouped into batches to manage the workloads associated with customer responses, text messages are sent to request a reading and engage with the customer to resolve the issues preventing readings being obtained,
- automated emails are issued to customers after three, six and nine months without a reading being obtained to request a reading, and engage with the customer to resolve the issues preventing readings being obtained,
- after six to seven months with no readings, the billing team investigates each unread ICP including reviewing meter reader notes to confirm why the ICP is unread; they telephone the customer to attempt to resolve the issues - if no response is received for an account managed customer, the issue is escalated to the customer's account manager, and
- if no reading is received within 12 months a letter is sent and followed up with a phone call, to arrange a compliance reading.

Nova annually reviews all ICPs which meter readers have been instructed not to read due to health and safety concerns, to determine whether the issue has been resolved and the ICP can be moved to a standard reading route.

Meter read attainment reporting

Each month, retailers must report the number and percentage of validated meter readings obtained in accordance with rules 29.4.3 and 29.5 in the GAS080 report. The GAS080 report is created in EnergyMarket using raw data, which is imported from Orion, and includes temporarily disconnected ICPs as these are also included in submission data. Supporting data was not readily available to enable me to confirm that the GAS080 was correctly aggregated during the audit, and Nova's energy reconciliation team is investigating to check the report content is correct.

To confirm compliance with the meter reading frequency rules, Nova provided a copy of the GAS080 report for December 2025 to February 2026 and lists of ICPs unread in the previous four months and 12 months as of 31 March 2026 for review. The GAS080 reports are summarised in the table below:

Month ending	Rolling 4 months (target 90%)	12 months (target 100%)
December 2025	99.67%	99.97%
January 2026	99.65%	99.97%
February 2026	99.63%	99.96%

Read attainment

Review of read attainment reporting for the four months ending December 2025 to February 2026 confirmed Nova complied with rule 29.5 and obtained a reading at least once every four months for 90% of the consumer installations with non-TOU meters to which the retailer has continuously supplied gas for the previous four months.

Nova did not obtain actual readings for every non-TOU ICP which it supplied for 12 months within the previous 12 months as required by rule 29.4.3. This is compliant as long as exceptional circumstances prevented interrogation.

Nova provided a list of four AG6 ICPs not read in the 12 months ending March 2026, which were not read because the meter was unable to be accessed. Two meters could not be accessed due to safety concerns, one premises was vacant and inaccessible, and one was occupied and inaccessible. In all cases exceptional circumstances existed and/or Nova had used their best endeavours to attempt to obtain a reading.

Nova also provided a meter information extract showing the last actual read date for all connected ICPs, which indicated that 14 other AG6 ICPs had not been read in the year ending March 2026. I checked each ICP and confirmed that the ICPs had received actual readings, and the last actual read date for an old meter had been supplied.

In **section 3.2** I checked compliance with the requirement to obtain readings for allocation group 4 customers at least monthly.

3.4 Non-TOU Validation

Meter reading validation occurs at multiple levels.

Meter reader validation

Manual meter readings are provided by MRS and Wells. The meter reader's handheld device performs a localised validation to ensure that the reading is within limits compared to the previous consumption period. When a read falls outside these limits, the handheld device produces an audible and a visual warning, and the meter reader re-enters the reading. MRS takes photos for every meter reading, and Wells takes photos where readings fail validation, or an out of cycle reading is requested. Meter reader photos are available for viewing through the MRS and Wells portals.

The meter readers check the condition of the meters, to identify issues that could affect meter accuracy or safety and record reasons that readings cannot be obtained. If an issue is identified, the appropriate condition code is entered into the hand-held device and provided to Nova. MRS and Wells provide codes and supporting notes which are imported into Orion.

No read related codes are reviewed as part of the read attainment process once no actual reads have been received for six to seven months. The billing team investigates each unread ICP including reviewing meter reader notes to confirm why the ICP is unread and telephones the customer to attempt to resolve the issues. If no response is received for an account managed customer, the issue may be escalated to the customer's account manager.

As well as being provided as part of the read files, meter condition information is emailed to a shared inbox by MRS and Wells. Meter changes and new meters are validated against registry and work completion paperwork. Issues with meter condition such as potential tampering are passed to the metering team. Instructions to clear condensation are provided to the meter reader where a meter cannot be read due to condensation, but if the issue is persistent, it can be escalated to the

metering team. I viewed examples of emailed condition events during the audit period and confirmed they were appropriately actioned.

Read import and billing validation

Manual and AMI meter readings undergo the same Orion read import and billing validations. Expected meter readings which are missing are estimated the following day. Vacant and inactive ICPs continue to be read, as long as a meter is present.

The Orion meter read import validation process generates exceptions where:

- the ICP and meter combination in the read file is not open,
- the process is attempting to import an opening reading from a meter reading file; opening meter readings should always be created by incoming switching files or creating a new meter in Orion from meter installation paperwork,
- there are exceptionally high or low meter reads, relative to the previous three months' consumption,
- readings are received for no bill sites (including vacant ICPs),
- readings are earlier than previous readings, and
- readings are on the same day as another reading which may be the same or different, so that one of the readings can be made a misread.

Prior to daily billing, Orion's billing validation is completed for any ICPs scheduled to be billed that day. The billing validations include consumption variations from previous bills, revenue variations from previous bills, and short and long billing periods.

Each exception is reviewed on the meter read import or billing exception validation screen and ticked as it is approved or resolved. Approval allows the reading to be imported against the ICP's meter or the reading to be invoiced.

Post invoicing Nova completes reasonableness checks on a report of all the daily invoices, focussing on high invoices and long day invoices. The primary purpose of this process is to identify customers who may require correspondence to explain an unusual invoice, and check that the unusually high days or invoice is valid.

Stopped meters

Nova's metering and connections team uses its zero-usage SQL query to identify new ICPs which have had the same reading for four months or more, which will be reduced to two months in the future. The query is run three times weekly; each ICP's consumption history is checked in Orion, and a service order is raised to record the outcome. If the usage appears seasonal, the service order review date is set for when consumption is next expected. If there appears to be genuine zero-usage, Nova will check with the customer and then raise a meter replacement service order if there is a potential fault. Corrections for stopped and faulty meters are discussed in **section 3.5**.

Inactive consumption

Review of inactive and vacant ICPs with consumption confirmed that they are included in the GAS040 report. Inactive and vacant ICPs continue to be read, as long as they are metered.

3.5 Non-TOU Error Correction

The process for error correction was examined to ensure that corrected consumption is included in the revision process and provided to the allocation agent.

Multipliers

All Nova ICPs have a multiplier of one, and no meter multiplier exceptions have occurred during the audit period. If a multiplier correction was required it would be necessary to reverse the invoices for the meter, adjust the multiplier and then rebill.

Stopped or faulty meters

Nova's metering and connections team uses its zero-usage SQL query to identify new ICPs which have had the same reading for four months or more, which will be reduced to two months in the future. The query is run three times weekly; each ICP's consumption history is checked in Orion, and a service order is raised to record the outcome. If the usage appears seasonal, the service order review date is set for when consumption is next expected. If there appears to be genuine zero-usage, Nova will check with the customer and then raise a meter replacement service order if there is a potential fault. In parallel the metering and connection team works through the zero-usage SFI service orders as their due dates are reached; and resets the next due date and adds notes as part of the process.

An excel template is used to calculate the consumption within the stopped or faulty period, either based on the period before the fault or after the meter is replaced and takes seasonal consumption patterns into account. The missed consumption is added as an estimated closing read on the removed meter and any readings during the faulty period are made misreads so that they are ignored for reconciliation.

I checked ten examples of stopped meters and confirmed that corrections were accurately processed.

Meter pressure corrections

As discussed in **section 2.2**, there were:

- Nine meter pressure differences over ± 1.1 kPa likely to result in errors outside the maximum permissible errors recorded in NZS 5259 which were corrected during the audit in time for revised submission information to be washed up for all affected periods, and
- 42 meter pressure differences under ± 1.1 kPa unlikely to result in errors outside the maximum permissible errors recorded in NZS 5259; ICP 0047125351PGA6E had undergone a meter pressure correction and the other 41 ICPs are listed in **Appendix 4**. Nova intends to investigate and resolve each of the 41 remaining discrepancies.

There are also two ICPs with network pressure lower than meter pressure, which are being checked with the meter owner to confirm whether they are correct.

Inactive or vacant statuses with consumption

Vacant ICPs are moved to "TNO" (the new occupier) customer accounts in Orion and continue to be read. GAS040 volumes are generated for any day where the ICP has a metered status. I checked a sample of ten inactive ICPs with consumption and five vacant ICPs with consumption and confirmed that the volumes were included in the GAS040 submissions.

Non-TOU meter pressure error correction		
Non-compliance	Description	
Report section: 3.5 Rule: 26.2 From: 1 April 2024 To: 28 July 2026	Audit history: Yes Controls: Needs improvement Impact: Moderate	There were 51 ICPs with inaccurate meter pressures recorded in Orion. All nine differences over ± 1.1 kPa and likely to result in errors outside the maximum permissible errors recorded in NZS 5259 and were corrected during the audit in time for revised submission information to be washed up for all affected periods. One of the 42 differences under ± 1.1 kPa has been corrected and Nova intends to resolve the other issues which are listed in Appendix 4.
Remedial action rating	Remedial timeframe	Remedial comment
In Progress	Ongoing	Nova has increased the priority of resolving meter pressure exceptions identified through its exception reporting suite. The Metering and Connections team will continue to monitor, investigate and correct identified discrepancies to ensure metering information remains accurate and compliant.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	Nova has reviewed these discrepancies and confirmed they developed over time and were not actioned through existing exception reporting processes. Upon identification, Nova commenced a review of the affected records and prioritised corrections. All affected sites had been identified through the exception reporting suite.	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach.	
Estimate of the impact of the breaches (where admitted).	Nova considers the overall impact to be limited and confined to the ICPs identified through the audit. The higher-impact discrepancies were corrected during the audit period, and the remaining identified sites have been corrected or are being corrected through ongoing remediation activities.	
What steps or processes were in place to prevent the breaches?	Nova has processes in place to manage meter configuration data and maintain the accuracy of metering information held within Orion, including meter pressure exception reporting. These processes relied on updates received from industry participants and the completion of routine data maintenance activities. While the controls identified sites requiring correction, exceptions were not always actioned within expected timeframes	

What steps have been taken to prevent recurrence?	Following the review, a higher priority has been placed on actioning the exception reporting suite. The Metering and Connections team will continue to monitor, investigate and resolve identified discrepancies to ensure metering records remain accurate and compliant
---	---

3.6 TOU Validation

MEGA has not supplied TOU ICPs.

Nova Energy supplies 148 Allocation Group 1 ICPs and 84 Allocation Group 2 ICPs. AG1 ICPs have telemetry and are read remotely by Bluecurrent or Nova's metering team, and AG2 ICPs do not have telemetry and are read remotely by Powerco (for Powerco correctors) and Wells for all other correctors. The meter reader downloads meter event reporting information with the meter readings and provides any issues to Nova for investigation and action.

TOU validation – cogeneration ICPs

Cogeneration allocation group 1 ICPs 0008000249NGBF0, 0008000300NGE00 and 1000519831PGAC0 are not managed in Orion. Bluecurrent obtains the meter readings, validates them and converts them to energy using its Flow2E system, and Nova imports the converted delivered energy values into EnergyMarket for inclusion in the GAS050.

TOU validation – all other ICPs

Validation on receipt

Upon receipt of TOU readings, an automated process is used to create one file per ICP which is validated to identify:

- incorrect file formats,
- high or low pressures relative to the expected range for the ICP ($\pm 20\%$),
- a different number of days or hours to the expected quantity, and
- zero or negative corrected or uncorrected volumes.

Exceptions are checked with the meter reading provider, meter owner and/or customer account manager and customer.

Orion validation

Orion then imports the validated corrected volume, uncorrected volume, pressure and temperature values, completes its own validation, and converts the readings to energy. Orion's own validation identifies missing or duplicated readings, pressures outside the expected range for the ICP, temperature outside the expected range for the ICP, and TOU data inconsistent with the Orion account, ICP or meter or corrector set up.

The energy volumes are validated using the TOU energy calcs spreadsheet, which compares the TOU data to the last four years of consumption history (if available). Each ICP is checked individually checked using a data table and graphs for reasonableness and completeness.

EnergyMarket validation

Once Orion and cogeneration TOU data has been entered into EnergyMarket for submission, the energy reconciliation team completes validation including:

- ensuring that all ICPs expected to be TOU on the registry are included in the GAS050 for all applicable days and all ICPs in the GAS050 are recorded as TOU for the corresponding day on the registry; adjustments are made if any differences are identified, to ensure that ICPs are correctly included, and
- comparing the current month's consumption to the most recent submissions for past year and previous year graphically and in table form; any potential exceptions are investigated with the account manager and/or billing team, and the ten largest positive and negative differences are highlighted for review.

4. Energy Consumption Calculation (rule 28.2)

By 1 April 2026 all MEGA ICPs were switched to GNVG. MEGA ICPs have their readings converted to energy by Orion using the same process as GNVG ICPs.

To evaluate energy consumption calculations, a spreadsheet was prepared which converts volume between meter readings to volume at standard conditions and then to energy consumption. The results of this calculation were compared to Nova's results.

Non-TOU Energy Consumption Calculation

Orion converts readings from CM to energy by applying:

- a **temperature factor** using GIC's published gas gate temperatures, adjusted for the Joule Thomson Effect where the meter pressure is lower than the network pressure,
- a **pressure factor** based on the ICP's meter pressure,
- an **altitude factor** based on the ICP's altitude and meter pressure,
- a static **compressibility factor** for the meter based on the ICP's meter pressure, average temperature, and the gas composition from OATIS where the meter pressure is above 50 kPa; for ICPs below 50 kPa a compressibility factor of one is applied, and
- a **calorific value** from OATIS.

Compressibility factors are validated using a daily exception report, which updates the compressibility factor based on the meter pressure recorded on the meters tab in Orion for ICPs with meter pressures at or above 50 kPa, and sets the Orion compressibility factor to 1 for meters with pressures below 50 kPa.

I found there are 202 non-TOU gas connection status ICPs with registry meter pressures above 50 kPa. I matched these to the Orion compressibility factors and found ICPs 1000587121PG660 and 0001428431QT264 had a compressibility factor of 1 applied, because the Orion meter pressure was recorded as 35 kPa although the registry recorded 70 kPa. All other compressibility factors for ICPs with pressures above 50 kPa appeared reasonable in relation to their meter pressure, and neither error resulted in a difference outside the maximum permissible errors in NZS 5259.

There were 18 non-TOU gas connection status ICPs with meter pressures under 50 kPa which had a compressibility factor greater than 1 applied. All were within 0.09% of 1 and appeared reasonable in relation to their meter pressure.

Review of a sample of compressibility factor calculations confirmed they were within the maximum permissible errors set out in NZS 5259.

Energy conversion accuracy

I compared my manual gas conversion calculation results to Orion, and I confirmed that the factors were correctly calculated based on the input values recorded in Orion. Where these input values are incorrect, incorrect energy volumes may be produced.

Some incorrect conversion factor inputs were identified and are recorded as non-compliance in the listed report sections.

Conversion issue	Factor(s) affected	Report section
Incorrect altitudes 15 ACTC or ACTV ICPs have an Orion altitude which differs from the registry by more than $\pm 10\text{m}$. Altitude factor errors outside the maximum permissible errors in NZS 5259 have occurred for ICPs 1001295261NG3AD (-3.01%) and 0000027411GN5E9 (+5.55%). Three of a sample of 75 ICPs with non-zero altitudes and one of the 36 ICPs with zero altitudes differed from the Google Earth altitude by more than $\pm 10\text{m}$. None of the differences were outside the maximum permissible errors in NZS 5259.	Altitude	2.1.2
Incorrect meter pressures There are 13 differences for meter pressure between Orion and the registry over $\pm 1.1\text{ kPa}$, which are likely to result in errors outside the maximum permissible errors recorded in NZS 5259, and 42 differences for meter pressure under $\pm 1.1\text{ kPa}$ which are not likely to result in errors outside the maximum permissible errors recorded in NZS 5259. ICP 0047125351PGA6E had undergone a meter pressure correction and the other 54 ICPs are to be corrected. Compressibility, altitude and temperature factor errors are likely to be within the maximum permissible errors in NZS 5259.	Pressure, altitude, compressibility, temperature	2.2
Incorrect gas gates 14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion, resulting in another gas gate's temperatures being used to calculate the temperature factor. Temperature factor errors are likely to be within the maximum permissible errors in NZS 5259.	Temperature	2.3.1
Incorrect network pressures 24,616 ACTC or ACTV ICPs have an incorrect network pressure recorded in Orion. 45 of the ICPs have network pressure differences over $\pm 400\text{ kPa}$, which are likely to result in temperature factor differences over the maximum permissible errors in NZS 5259.	Temperature	2.3.1
Incorrect gas types assigned to gas gates RPR30801 and TAU07001 have ACTC and ACTV ICPs connected and incorrect gas types assigned in Orion. Gas composition values for a different gas type are being applied in the conversion process. None of the differences are likely to cause calorific value differences outside the maximum permissible errors in NZS 5259.	Calorific value	2.3.2

Application of the conversion process

The historic estimate process first normalises the read-to-read CM using the most recent SADS profiles available for the period. The normalised CM data is then converted to GJ by applying the average seasonal conversion factors (temperature factor, compressibility factor and calorific value) for the ICP for the month. According to rule 35.2, read-to-read period consumption should be converted to GJ, then normalised using the SADS. This ensures that sum of consumption apportioned to each month matches the total consumption for the read-to-read period. If different monthly temperature, compressibility and calorific value conversion factors are applied, the total CM apportioned to each month will be consistent with the total, but the GJ is likely to differ.

TOU energy consumption calculation – cogeneration ICPs

Cogeneration allocation group 1 ICPs 0008000249NGBF0, 0008000300NGE00 and 1000519831PGAC0 are not managed in Orion. Bluecurrent obtains the meter readings, validates them and converts them to energy using its Flow2E system, and Nova imports the converted delivered energy values into EnergyMarket for inclusion in the GAS050. All of the ICPs have temperature and gauge pressure correctors, and I reviewed a sample of data provided by Bluecurrent and confirmed the energy conversion was compliant.

TOU energy consumption calculation – all other ICPs

Gas conversion is completed by Orion for all other TOU ICPs using ICP static data, OATIS gas composition information and corrected volumes, meter pressure and temperature from the meter downloads. The factors applied varies depending on the corrector register content. All Nova Energy's TOU meters have TA (temperature and absolute pressure corrected), TG (temperature and gauge pressure corrected) or TGS (temperature, gauge pressure and supercompressibility corrected) register content codes.

- Pressure and temperature factors of 1 are applied for all TOU ICPs, because the data is already corrected for temperature and pressure.
- Altitude factors are calculated for all TOU ICPs but are only applied in the conversion process where the register content code is TG or TGS.
- Compressibility factors are calculated and applied for all TOU ICPs where the register content code is TG or TA. As recorded in the 2024 audit, Orion uses a static meter pressure from the meters tab in Orion to calculate compressibility instead of the daily average measured meter pressure.

Meter pressure has the most significant impact of the inputs into the compressibility calculation, but differences over the maximum permissible errors of $\pm 0.2\%$ for meters with pressures less than or equal to 500 kPa and $\pm 0.25\%$ for meter pressures over 500 kPa are generally only expected where the difference between the applied and measured meter pressure is at least ± 75 kPa. I checked meter pressure variances over two months for a diverse sample of eight ICPs with minimum measured meter pressures between 61.4 and 750.65 kPa, and maximum meter pressures between 73.5 and 801.47 kPa, and found that the largest pressure variance for each ICP did not cause a compressibility factor difference outside maximum permissible errors.

Energy conversion accuracy

I checked the TOU conversion process by reperforming the calculation for a diverse sample of eight TOU ICPs and confirmed compliance, except for small differences in the compressibility calculation. Some incorrect conversion factor inputs were identified and are recorded as non-compliance in **section 2.2**.

Conversion issue	Factor(s) affected	Report section
TOU register content ICPs 0001842361QTBB8 and 0001028461NG515 have TG register content recorded in Orion, and an altitude adjustment is applied when it is already accounted for in the corrected volume. Because both ICPs have altitudes of 20m and pressures below 100 kPa, the difference expected to be within the maximum permissible altitude factor error of $\pm 1.0\%$ set out in NZS 5259.	Altitude	2.2

Previous audit conversion issues

I rechecked the previous audit issue where an incorrect register content was applied for ICP 0008000038NG8EF, as the register content type was not updated from TGS to TG following a corrector change in April 2022. The corrector type has been updated from 1 February 2024, but consumption between April 2022 and January 2024 has been converted as TGS. Non-compliance has not been re-raised for this issue which was recorded in the last audit and assessed to have an impact of 1.14% or 4.3 TJ per annum.

Non-TOU settled ICPs with correctors

There are no non-TOU settled ICPs with correctors.

Conclusion

Compliance with rule 28.2 is achieved for non-TOU ICPs because the conversion process itself is operating as expected, and non-compliances are raised in **sections 2.1.2, 2.2, 2.3.1 and 2.3.2** for the incorrect inputs into the process.

Non-compliance is recorded because a reference rather than metered pressure is used to calculate the compressibility for TOU ICPs where conversion is completed using Orion.

Energy consumption calculations		
Non-compliance	Description	
Report section: 4 Rule: 28.2 From: 1 April 2024 To: 28 July 2026	Audit history: Yes Controls: Acceptable Impact: Minor	TOU compressibility factors are calculated and applied for TG and TA correctors where conversion is completed in Orion using a static meter pressure from the meters tab in Orion instead of the average measured meter pressure. This is unlikely to cause compressibility factor errors outside the maximum permissible errors in NZS 5259.
Remedial action rating	Remedial timeframe	Remedial comment
In Progress	Ongoing expected completion Q2 2027	Nova is implementing monthly validation reporting to identify ICPs that may require conversion setting updates following corrector changes or upgrades. In addition, Nova will obtain and review a monthly list of relevant ICPs from metering service providers to ensure any required

		configuration changes are identified and actioned promptly.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	Nova's review identified that Metering Equipment Provider (MEP) documentation and notifications relating to corrector changes and upgrades did not consistently provide sufficient information to identify updates required within Orion. As a result, a static meter pressure value recorded in Orion continued to be used in compressibility factor calculations for some TOU ICPs rather than the average measured meter pressure	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach.	
Estimate of the impact of the breaches (where admitted).	Nova considers the impact of the breach to be low. The audit noted that the use of a static meter pressure value is unlikely to result in compressibility factor errors outside the maximum permissible limits specified in NZS 5259. Nova is not aware of any material impact on customer billing arising from this issue.	
What steps or processes were in place to prevent the breaches?	At the time, no specific control was in place to independently validate that corrector changes and upgrades had been appropriately reflected within Orion conversion settings.	
What steps have been taken to prevent recurrence?	Nova is implementing monthly validation reporting to identify ICPs that may require conversion setting updates following corrector changes or upgrades. In addition, Nova will obtain and review a monthly list of relevant ICPs from MEPs to ensure any required configuration changes are identified and actioned promptly. These controls will improve ongoing monitoring and reduce the likelihood of recurrence.	

5. Estimation and Submission Information

5.1 TOU Estimation and Correction (rule 30.3)

MEGA has not supplied TOU ICPs.

This rule requires that retailers must provide the best estimate of consumption information to the allocation agent in situations where actual data is not available. Schedule 1 of the Downstream Regulations provides a matrix of correction criteria based on the type of metering issue.

TOU estimation and correction – cogeneration ICPs

Cogeneration allocation group 1 ICPs 0008000249NGBF0, 0008000300NGE00 and 1000519831PGAC0 are not managed in Orion. Bluecurrent obtains the meter readings and converts them to energy using its Flow2E system, and Nova imports the converted delivered energy values into EnergyMarket for inclusion in the GAS050. Where actual data is not available estimates are generated based on D+1 information provided by Bluecurrent, and if actual data becomes available at a later date the estimates are replaced.

Bluecurrent provides corrections where cogeneration ICPs have meter faults or outages, and I viewed one example where a confirmed outage with missing data was correctly packed with zeros and had the estimate indicator correctly recorded in the GAS050. Bluecurrent provides supporting information which forms part of the audit trail.

Bluecurrent's Flow2e and Nova's EnergyMarket accept replacement data, including where estimates have been provided and actual data becomes available later.

TOU estimation and correction – all other ICPs

All other TOU ICPs are managed in Orion, and where data is missing it is estimated by the account manager based on the best information available, including surrounding data, historic consumption in Orion or historic consumption profiles provided by the customer for new ICPs. If there are conditions affecting the period to be estimated which do not affect the period the estimation is based on, they are taken into account. I checked five examples of estimates and noted that they were reasonable and had an estimate indicator correctly recorded in the GAS050.

Orion and EnergyMarket accept replacement data, including where estimates have been provided and actual data becomes available later. Nova processes corrections where meter data is available but incorrect, and Orion records an audit trail of the changes.

Nova has adopted the previous audit recommendations to follow up missing TOU readings and use readings on either side of missing periods as inputs into the estimation process.

Full information on corrections and estimates is retained including workings. TOU readings imported into Orion are treated as actual and staff check each estimate and change the estimation flag following import for any account manager.

5.2 Provision of Retailer Consumption Information (rules 30 to 33)

MEGA has not supplied TOU ICPs, and non-TOU submissions are produced using Orion and EnergyMarket according to the same process as GNVG ICPs.

Nova's compliance with rules 30 to 33 was examined by a walk-through of their processes and controls to confirm compliance.

GAS050 TOU energy submissions

Cogeneration allocation group 1 ICPs 0008000249NGBF0, 0008000300NGE00 and 1000519831PGAC0 are not managed in Orion. Bluecurrent obtains the meter readings and converts them to energy using its Flow2E system, and Nova imports the converted delivered energy values into EnergyMarket for inclusion in the GAS050.

GAS050 submissions for all other TOU ICPs are generated directly from Orion. Orion imports the meter reading files, converts the volumes to energy and produces the GAS050 file, which is then imported into EnergyMarket for aggregation with the cogeneration ICPs and further validation. The EnergyMarket validation includes:

- ensuring that all ICPs expected to be TOU on the registry are included in the GAS050 for all applicable days and all ICPs in the GAS050 are recorded as TOU for the corresponding day on the registry; adjustments are made if any differences are identified, to ensure that ICPs are correctly included, and
- comparing the current month's consumption to the most recent submissions for past year and previous year graphically and in table form; any potential exceptions are investigated

with the account manager and/or billing team, and the ten largest positive and negative differences are highlighted for review.

The previous audit made several recommendations to improve the validation process, and the current status is listed below.

2024 audit recommendation	Current status
Include review of the daily TOU data whenever an ICP is identified in the submission checks as being outside the expected volume thresholds compared to historical consumption patterns or previous submissions.	Adopted, daily data is reviewed when exceptions are identified.
Investigate validating daily consumption volumes against contracted MDQ values as part of submission checks to identify daily TOU data outliers for investigation prior to submission.	Not adopted, as MDQ data is not consistently available.
Investigate implementing post submission UFG monitoring of TOU gas gates to ensure any potential TOU data corruption is identified and resolved in a timely manner.	Not adopted, the energy reconciliation team is focussed on its thorough pre-submission checks to identify issues.
Work with the TOU gas meter owners to implement a validation check of TOU meters design maximum flow rate (Qmax) to the measured hourly flow rate to identify meters that may be close to or are exceeding the meter design maximum flow rate.	Not adopted, as this data is not consistently available.

I traced a sample of raw TOU data through the conversion process to submission files and compared submission information against the registry. This confirmed the process and that submission information was correctly compiled.

GAS040 non-TOU energy submissions

GAS040 submission data is reviewed in EnergyMarket prior to submission each month, including:

- identifying discrepancies between the allocation groups, networks and gas gates recorded in submission data and the registry, ICPs included in submission data but missing from the registry, and ICPs supplied by GNVG on the registry but missing from submission data; due to limited time available before each submission is due, the team focusses on correcting the data for submission, but does not always correct the data at the source in Orion,
- high and low read to read differences; if there are concerns that reads are inaccurate, they can be made misreads so that forward estimate is generated instead,
- a node (gate level) summary which validates the consumption against the previous month or revision at gate level, focussing on the largest 10% of positive and negative changes,
- an ICP level summary which validates the unprofiled consumption against the previous month or revision at ICP level; at least 100 outlying ICPs are reviewed by checking graphs of their monthly consumption over the previous five years (if available) to identify potential errors, and
- a wash up change report is checked to ensure that the summary files are consistent with the files being used for submission, ensure that the correct version of the GAS040 report is submitted, and detect any zero lines which need to be imported.

Review of inactive and vacant ICPs with consumption confirmed that they are included in the GAS040 report. I reviewed GAS040 reports against detailed data for the March 2026 initial submission and September 2025 revision 7 and found it was consistent, but the detailed data

showed some overlaps in dates where ICPs were included for more than 31 days in March or 30 days in September. This only occurred where old meters had not been closed down correctly and forward estimate of zero was being produced. This has no impact on submission, and the billing team will add closing readings.

I also reviewed a sample of revision submissions for MEGA including the February and March 2026 initial submissions, August and September 2025 interim submissions and January and February 2025 final submissions, and I confirmed that the detail was consistent with the submission files. Overlaps were also present in the MEGA submission data. I also checked all backdated registry information changes affecting submission which occurred after the MEGA ICPs switched to GNVG including network, retailer, status, metering, read renegotiations and switch withdrawals and confirmed they were correctly accounted for in submission information.

The previous audit made several recommendations to improve the validation process:

2024 audit recommendation	Current status
Review the current process of identifying ICP level exceptions identified during the initial GAS040 submission checks to include a mechanism to confirm all exceptions are resolved prior to the interim submission or the following months initial submission.	Not adopted, a fresh review is completed for each revision and if a previous exception remains it is likely to be re-identified.
Investigate implementing an additional check for overlapping consumption records in the ICP level GAS040 consumption information.	Not adopted. Because forward estimate of zero is being generated for these overlapping records there is no impact on submission accuracy.
Investigate implementing an additional check for gaps in consumption records compared to the Registry Retailer, Status and Metering events in the ICP level GAS040 consumption information.	Adopted, the pre-submission validation against registry data using EnergyMarket identifies gaps in submission records.

5.3 Initial Submission Accuracy (rule 37.2)

MEGA non-TOU submissions are produced using Orion and EnergyMarket according to the same process as GNVG ICPs.

Nova's compliance with rules 30 to 33 was examined by a "walk-through" of their processes and controls to confirm compliance.

Rule 37.2 requires that the accuracy of consumption information, for allocation groups 3 to 6, for initial allocation must be within a certain percentage of error published by the industry body.

As part of their pre-submission checks, Nova checks for high consuming ICPs, variances to the previous month and/or previous submission to help to identify potential forward estimate inaccuracies. I reviewed examples of these checks and found large discrepancies were appropriately investigated and resolved.

Nova

I reviewed GAR050 reports provided by the allocation agent and found Nova did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission each gas gate 34 times for submission periods between July 2022 and April 2025. Previous breaches of this nature have been found to be immaterial, and the percentages and counts of ICPs within the thresholds have improved.

I reviewed the differences and found that they occurred because of under or over estimation where actual readings were not available at the time the initial submission was produced, and corrections where readings used to calculate historic estimate for the initial submission were found to be misreads. There was no evidence that Orion is consistently under or overestimating.

Month	Total Gas Gates	Number Within 10%	% Compliant	Within $\pm 10\%$ or < 200 GJ	% Compliant or immaterial
Jul-2022	78	50	64.10%	73	93.59%
Aug-2022	77	53	68.83%	67	87.01%
Sept-2022	77	49	63.64%	67	87.01%
Oct-2022	77	41	53.25%	66	85.71%
Nov-2022	76	48	63.16%	62	81.58%
Dec-2022	76	26	34.21%	56	73.68%
Jan-2023	77	50	64.94%	72	93.51%
Feb-2023	78	53	67.95%	74	94.87%
Mar-2023	78	48	61.54%	68	87.18%
Apr-2023	78	45	57.69%	71	91.03%
May-2023	77	35	45.45%	53	68.83%
Jun-2023	76	44	57.89%	60	78.95%
Jul-2023	76	50	65.79%	66	86.84%
Aug-2023	75	57	76.00%	68	90.67%
Sept-2023	75	34	45.33%	60	80.00%
Oct-2023	75	42	56.00%	67	89.33%
Nov-2023	75	44	58.67%	66	88.00%
Dec-2023	75	22	29.33%	49	65.33%
Jan-2024	75	37	49.33%	63	84.00%
Feb-2024	75	54	72.00%	71	94.67%
Mar-2024	75	29	38.67%	62	82.67%
Apr-2024	75	39	52.00%	65	86.67%
May-2024	75	28	37.33%	49	65.33%
Jun-2024	75	57	76.00%	71	94.67%

Month	Total Gas Gates	Number Within 10%	% Compliant	Within ±10% or < 200 GJ	% Compliant or immaterial
Jul-2024	76	62	81.58%	71	93.42%
Aug-2024	76	57	75.00%	70	92.11%
Sept-2024	76	55	72.37%	73	96.05%
Oct-2024	76	41	53.95%	66	86.84%
Nov-2024	77	52	67.53%	70	90.91%
Dec-2024	77	27	35.06%	59	76.62%
Jan-2025	76	54	71.05%	72	94.74%
Feb-2025	77	55	71.43%	74	96.10%
Mar-2025	77	52	67.53%	71	92.21%
Apr-2025	77	42	54.55%	69	89.61%
Average	76	45	59.21%	66	86.84%

Month	Initial Submission All Gas Gates (GJ)	Final Submission All Gas Gates (GJ)	Percentage Variation
Jul-22	420,419.40	492,157.86	14.58%
Aug-22	440,454.18	476,013.82	7.47%
Sept-22	417,005.68	425,615.70	2.02%
Oct-22	402,587.38	387,246.95	-3.96%
Nov-22	335,870.79	303,584.10	-10.64%
Dec-22	308,412.82	268,304.03	-14.95%
Jan-23	258,679.44	251,626.14	-2.80%
Feb-23	238,148.10	246,485.12	3.38%
Mar-23	285,779.90	301,768.47	5.30%
Apr-23	296,074.46	314,127.32	5.75%
May-23	362,244.67	413,007.59	12.29%
Jun-23	425,771.98	470,250.21	9.46%
Jul-23	474,614.94	507,556.60	6.49%

Month	Initial Submission All Gas Gates (GJ)	Final Submission All Gas Gates (GJ)	Percentage Variation
Aug-23	507,723.74	540,500.08	6.06%
Sept-23	460,593.60	420,633.32	-9.50%
Oct-23	416,699.61	387,323.98	-7.58%
Nov-23	347,839.89	335,149.15	-3.79%
Dec-23	331,203.94	285,323.48	-16.08%
Jan-24	259,856.15	240,786.80	-7.92%
Feb-24	244,925.67	252,525.05	3.01%
Mar-24	283,148.75	307,870.32	8.03%
Apr-24	309,681.92	326,298.04	5.09%
May-24	389,253.44	452,299.70	13.94%
Jun-24	433,917.56	442,291.21	1.89%
Jul-24	478,317.22	497,025.20	3.76%
Aug-24	482,856.36	482,311.11	-0.11%
Sept-24	422,437.63	408,913.51	-3.31%
Oct-24	387,438.45	362,580.37	-6.86%
Nov-24	325,164.17	313,906.79	-3.59%
Dec-24	296,903.12	258,929.06	-14.67%
Jan-25	256,953.14	260,399.96	1.32%
Feb-25	231,895.59	228,836.66	-1.34%
Mar-25	274,466.99	286,279.78	4.13%
Apr-25	286,782.18	292,284.77	1.88%
Average	355,709.50	360,006.24	1.19%

MEGA

I reviewed GAR050 reports provided by the allocation agent and found Nova did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission each gas gate ten times for submission periods between July 2022 and March 2025. Previous breaches of this nature have been found to be immaterial, and the percentages and counts of ICPs within the thresholds have improved. A high level of compliance was achieved.

Where differences occurred, it appeared to be because of under or over estimation where actual readings were not available at the time the initial submission was produced, or corrections. There was no evidence that Orion is consistently under or overestimating.

Month	Total Gas Gates	Number Within 10%	% Compliant	Within $\pm 10\%$ or < 200 GJ	% Compliant or immaterial
Jul-2022	32	20	62.50%	31	96.88%
Aug-2022	32	25	78.13%	31	96.88%
Sept-2022	31	19	61.29%	31	100.00%
Oct-2022	33	14	42.42%	32	96.97%
Nov-2022	36	17	47.22%	36	100.00%
Dec-2022	36	11	30.56%	35	97.22%
Jan-2023	36	24	66.67%	36	100.00%
Feb-2023	36	20	55.56%	36	100.00%
Mar-2023	37	22	59.46%	37	100.00%
Apr-2023	38	23	60.53%	38	100.00%
May-2023	39	15	38.46%	38	97.44%
Jun-2023	39	26	66.67%	39	100.00%
Jul-2023	39	30	76.92%	39	100.00%
Aug-2023	39	31	79.49%	39	100.00%
Sept-2023	40	22	55.00%	40	100.00%
Oct-2023	40	23	57.50%	40	100.00%
Nov-2023	40	24	60.00%	40	100.00%
Dec-2023	40	21	52.50%	40	100.00%
Jan-2024	41	24	58.54%	40	97.56%
Feb-2024	41	27	65.85%	41	100.00%
Mar-2024	42	20	47.62%	42	100.00%
Apr-2024	43	30	69.77%	43	100.00%
May-2024	44	17	38.64%	43	97.73%
Jun-2024	44	29	65.91%	44	100.00%

Month	Total Gas Gates	Number Within 10%	% Compliant	Within ±10% or < 200 GJ	% Compliant or immaterial
Jul-2024	45	34	75.56%	44	97.78%
Aug-2024	45	35	77.78%	45	100.00%
Sept-2024	45	30	66.67%	44	97.78%
Oct-2024	45	31	68.89%	45	100.00%
Nov-2024	45	33	73.33%	45	100.00%
Dec-2024	45	20	44.44%	44	97.78%
Jan-2025	46	29	63.04%	46	100.00%
Feb-2025	47	33	70.21%	47	100.00%
Mar-2025	48	33	68.75%	48	100.00%
Average	40	25	62.50%	40	100.00%

Month	Initial Submission All Gas Gates (GJ)	Final Submission All Gas Gates (GJ)	Percentage Variation
Jul-22	6,826.30	8,819.38	22.60%
Aug-22	7,480.01	8,761.34	14.62%
Sept-22	7,489.35	7,981.40	6.16%
Oct-22	8,310.72	9,357.19	11.18%
Nov-22	8,337.96	8,083.44	-3.15%
Dec-22	8,562.25	7,736.40	-10.67%
Jan-23	7,464.09	7,318.20	-1.99%
Feb-23	6,870.58	6,765.72	-1.55%
Mar-23	7,602.82	7,799.59	2.52%
Apr-23	7,785.94	8,258.41	5.72%
May-23	9,512.49	10,853.49	12.36%
Jun-23	11,075.67	12,269.66	9.73%
Jul-23	12,824.71	13,427.18	4.49%
Aug-23	13,533.60	13,859.59	2.35%

Month	Initial Submission All Gas Gates (GJ)	Final Submission All Gas Gates (GJ)	Percentage Variation
Sept-23	12,687.34	11,790.43	-7.61%
Oct-23	12,203.22	11,743.78	-3.91%
Nov-23	10,762.01	10,416.88	-3.31%
Dec-23	10,437.27	9,715.66	-7.43%
Jan-24	9,127.95	8,366.38	-9.10%
Feb-24	8,206.50	8,466.97	3.08%
Mar-24	9,552.88	10,462.97	8.70%
Apr-24	10,622.27	11,017.57	3.59%
May-24	13,171.46	15,372.49	14.32%
Jun-24	14,992.53	15,505.32	3.31%
Jul-24	17,225.87	18,832.32	8.53%
Aug-24	20,193.30	19,615.94	-2.94%
Sept-24	18,033.29	17,555.01	-2.72%
Oct-24	17,216.34	16,303.52	-5.60%
Nov-24	14,966.07	14,458.17	-3.51%
Dec-24	14,871.90	13,349.55	-11.40%
Jan-25	13,936.43	13,801.12	-0.98%
Feb-25	12,506.83	12,334.21	-1.40%
Mar-25	15,065.28	15,959.88	5.61%
Average	11,498.64	11,707.85	1.79%

Initial submission accuracy		
Non-compliance	Description	
Report section: 5.3 Rule: 37.2 From: July 2022 final submission	Audit history: Yes Controls: Effective	Nova did not meet the requirement for initial submissions to be within $\pm 10\%$ or < 200 GJ of the final submission each gas gate 34 times for submission periods between July 2022 and April 2025 for GNVG and ten times for submission periods between July 2022 and March 2025 for MEGA.

To: March 2025 final submission	Impact: Minor	Controls are in place to reduce the quantity of forward estimate and detect inaccurate forward estimates. Meter read attainment processes help to ensure that reads are obtained. Submission information is reviewed before being provided to the allocation agent to identify inaccurate forward estimate.
Remedial action rating	Remedial timeframe	Remedial comment
No Action	N/A	Controls are in place to minimise forward estimation and improve initial submission accuracy, including meter read attainment monitoring and pre-submission validation of consumption and reconciliation data. Initial submission accuracy continues to be monitored through existing business-as-usual reconciliation processes.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	Nova did not meet the requirement for initial submissions to be within $\pm 10\%$ or less than 200 GJ of the final submission at each gas gate on 34 occasions for GNVG submission periods between July 2022 and April 2025, and on 10 occasions for MEGA submission periods between July 2022 and March 2025. The differences primarily arose from under or over estimation where actual meter readings were not available at the time the initial submission was produced, and from subsequent corrections where readings used in the initial submission were later determined to be inaccurate or misreads. There was no evidence of a systematic tendency to consistently over or under estimate consumption.	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach	
Estimate of the impact of the breaches (where admitted).	Nova considers the impact to be minor. The majority of gas gates were either within the required threshold or outside the threshold by less than 200 GJ. The differences were subsequently corrected through the reconciliation revision process and the auditor noted that previous breaches of this nature have generally been considered immaterial.	
What steps or processes were in place to prevent the breaches?	Controls were in place to reduce the quantity of forward estimate and identify inaccurate estimates. These included meter read attainment processes to maximise the receipt of actual readings, validation of high and low consumption exceptions, gas gate and ICP-level variance analysis, and pre-submission review of reconciliation information before it was provided to the allocation agent	
What steps have been taken to prevent recurrence?	Nova continues to apply meter read attainment monitoring, estimation controls and detailed pre-submission validation processes to identify and resolve potential inaccuracies before submission.	

	Initial submission performance will continue to be monitored as part of normal reconciliation activities, with identified exceptions investigated and addressed through existing business-as-usual processes.
--	---

5.4 Forward Estimates (rules 34 and 36)

The same Orion forward estimate process applies for GNVG and MEGA ICPs.

The Gas Downstream Reconciliation Rules 2008 state that a retailer may determine the method used for calculating a forward estimate at its discretion. Therefore, any process applied will be compliant with the Rules.

There have been no changes to the forward estimate process. Nova uses a combination of previous consumption history for the ICP, and historic seasonal adjustment daily shape values based on gas gate DDR (daily delivery report) data to produce forward estimate. Where no consumption history is present for an ICP then either the annualised consumption history provided in the GTN file from the losing retailer is used as a source for recently switched ICPs or a default consumption value of 0.155 GJ (43 kWh) per day for residential ICPs and 1.98 GJ (550 kWh) per day for business ICPs. Vacant ICPs have a forward estimate value of zero kWh per day applied.

Where a reading cannot be obtained within 12 months a permanent estimate is not applied. The previous audit recommended Nova consider applying permanent estimate readings where actual readings were not received; this was not adopted as the energy reconciliation team does not have access to SFI to confirm whether the best endeavours requirements have been met. The audit also recommended specifically checking allocation group 4 ICPs with forward estimate remaining and this has not been adopted.

As part of their pre-submission checks, Nova checks for high consuming ICPs, variances to the previous month to help to identify potential forward estimate inaccuracies. I reviewed examples of these checks and found large discrepancies were appropriately investigated and resolved. These checks along with read validation processes discussed in **section 3.4** help to identify and resolve submission accuracy issues.

I checked the January and February 2025 final revisions for GNVG and MEGA and found that allocation group 4 ICPs had 100% historic estimate and 5AG6 ICPs had a total of 2.14 GJ of forward estimate remaining. I checked the ICPs and found actual reads were not obtained and no permanent estimate was entered because actual readings were not received in time to be included in submissions.

5.5 Historic Estimates (rules 34 and 35)

The same Orion historic estimate process applies for GNVG and MEGA ICPs.

Historic estimates are calculated within the EnergyMarket database using validated readings, permanent estimate readings, conversion factors, and seasonal adjusted daily shape values (SADSV).

At midnight each night, a copy of Orion production data is automatically taken, and is restored to the Orion reporting database. The Orion reporting database is used for exception and ad hoc reporting on Orion's database; and reading and gas conversion data is provided to the EnergyMarket database each night.

SADSV

The historic estimate process uses SADSV to apportion consumption between reconciliation periods. SADSV are automatically downloaded from the allocation agent's portal when allocation results are published and are uploaded directly into EnergyMarket and applied in the calculations based on the Orion gas gate.

14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion, which is recorded as non-compliance in **section 2.3.1**. Different SADSV are published for each gas gate, as they are calculated independently by the Allocation Agent. The impact of the differences on historic estimate calculations is difficult to quantify and will vary from read-to-read period.

Historic estimate calculation order

The historic estimate process first normalises the read-to-read CM using the most recent SADSV profiles available for the period. The normalised CM data is then converted to GJ by applying the average seasonal conversion factors (temperature factor, compressibility factor and calorific value) for the ICP for the month. According to rule 35.2, read-to-read period consumption should be converted to GJ, then normalised using the SADSV. This ensures that sum of consumption apportioned to each month matches the total consumption for the read-to-read period. If different monthly conversion factors are applied, the total CM apportioned to each month will be consistent with the total, but the GJ is likely to differ.

The altitude and pressure factors are expected to be static for non-TOU ICPs, and the compressibility factor, temperature factor, and calorific value are expected to change based on the date, gate, gas type and meter pressure. I assessed the potential impact of converting to energy after apportioning CM between reconciliation periods:

Temperature factor	Monthly temperature factors are applied for ICPs connected to each gas gate, which vary by between 9.8 to 12.7 degrees across the year. As all ICPs are scheduled to be read monthly, read-to-read periods typically cover two months. The maximum month to month difference is 3.2 degrees. I assessed the impact of a 3.2 degree temperature change on conversion and found that it fell within the upper limit of NZS 5259 of $\pm 1.1\%$ of an in-service meter at rated operating conditions. I did not consider the Joule Thomson effect as it will have no impact on the temperature difference, as the same adjustment is made for each read-to-read period.
Pressure factor	No impact, pressure factor will remain the same unless meter pressure changes.
Altitude factor	No impact, altitude factor will remain the same unless altitude or meter pressure changes.
Compressibility factor	Differences are unlikely to be over maximum permissible errors, as pressure is the most significant input into the calculation and is static.
Calorific value	Daily calorific values apply for each gas type, and can vary by more than $\pm 0.5\%$, which could result in differences over maximum permissible errors.

Conversion factor inputs

Some incorrect conversion factor inputs were identified and are recorded as non-compliance in the listed report sections. These errors will result in incorrect total volumes being apportioned between the allocation periods.

Conversion issue	Factor(s) affected	Report section
Incorrect altitudes 15 ACTC or ACTV ICPs have an Orion altitude which differs from the registry by more than $\pm 10\text{m}$. Altitude factor errors outside the maximum permissible errors in NZS 5259 have occurred for ICPs 1001295261NG3AD (-3.01%) and 0000027411GN5E9 (+5.55%). Three of a sample of 75 ICPs with non-zero altitudes and one of the 36 ICPs with zero altitudes differed from the Google Earth altitude by more than $\pm 10\text{m}$. None of the differences were outside the maximum permissible errors in NZS 5259.	Altitude	2.1.2
Incorrect meter pressures There are 13 differences for meter pressure between Orion and the registry over $\pm 1.1\text{ kPa}$, which are likely to result in errors outside the maximum permissible errors recorded in NZS 5259, and 42 differences for meter pressure under $\pm 1.1\text{ kPa}$ which are not likely to result in errors outside the maximum permissible errors recorded in NZS 5259. ICP 0047125351PGA6E had undergone a meter pressure correction and the other 54 ICPs are to be corrected. Compressibility, altitude and temperature factor errors are likely to be within the maximum permissible errors in NZS 5259.	Pressure, altitude, compressibility, temperature	2.2
Incorrect gas gates 14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion, resulting in another gas gate's temperatures being used to calculate the temperature factor. Temperature factor errors are likely to be within the maximum permissible errors in NZS 5259.	Temperature	2.3.1
Incorrect network pressures 24,616 ACTC or ACTV ICPs have an incorrect network pressure recorded in Orion. 45 of the ICPs have network pressure differences over $\pm 400\text{ kPa}$, which are likely to result in temperature factor differences over the maximum permissible errors in NZS 5259.	Temperature	2.3.1
Incorrect gas types assigned to gas gates RPR30801 and TAU07001 have ACTC and ACTV ICPs connected and incorrect gas types assigned in Orion. Gas composition values for a different gas type are being applied in the conversion process. None of the differences are likely to cause calorific value differences outside the maximum permissible errors in NZS 5259.	Calorific value	2.3.2

Other inputs into the historic estimate calculation process

Some other Orion data accuracy issues were identified which affect submission accuracy:

- ICPs 0000852081QTC59 and 1002124819QT0FE were not created in Orion on switch in due to a GTN processing issue; the ICPs and meters were immediately added in Orion on discovery during the audit, and investigation found another two affected ICPs which were added - a new daily check has been implemented from July 2026 to identify ICPs where GNVG is the retailer but the ICP is not in Orion to prevent recurrence,

- ICP 1000508622PG3E7 GNC-12313447 16 April 2026 had a reading of 716 recorded in Orion and 717 on the registry, which Nova intends to correct; the error occurred because the GAC was completed manually on the registry and the process to update the reading did not complete in Orion correctly, and
- for outgoing switch event read renegotiations, the agreed switch event reading is made a misread while the read renegotiation is in progress; the opening reading is temporarily unavailable for use in the submission process, leading to temporarily inaccurate forward and/or historic estimate - recommendations to investigate and resolve this issue are made in **section 9.7 of the Gas Registry and Switching Performance Audit.**

Historic estimate calculation

For each scenario in the table below, a manual calculation was performed using the relevant SADS, readings and volumes, and compared to EnergyMarket's results. This test proved that the calculation was correct, and the correct SADS were applied for each scenario that occurred.

Test	Scenario	Test expectation	Result
a	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Correct
b	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Correct
c	ICP's become Inactive then Active within a month.	Consumption is only calculated for the Active portion of the month.	Correct
d	ICP switches in part way through a month on an estimated switch event reading	Consumption is calculated to include the 1st day of responsibility.	Correct
e	ICP switches out part way through a month on an estimated switch event reading.	Consumption is calculated to include the last day of responsibility.	Correct
f	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	Correct
g	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Correct
h	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Correct
i	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Correct
j	ICP has a multiplier or fixed factor (if any)	Consumption is calculated including the multiplier or fixed factor.	No examples available
k	Meter change	Consumption is correctly calculated with no gaps or overlaps	Correct

Historic estimate inputs		
Non-compliance	Description	
Report section: 5.5 Rule: 35 From: 1 April 2024 To: 28 July 2026	Audit history: No Controls: Effective Impact: Minor	Historic estimate calculation order Orion's historic estimate process normalises CM and then applies average conversion factors to generate volumes. Rule 35.2 requires the CM to be converted to volumes first, then normalised. Incorrect SADSVC applied due to an incorrect gate 14 ACTC or ACTV ICPs have an incorrect gas gate recorded in Orion. Different SADSVC are published for each gas gate, and the impact of the differences on historic estimate calculations is difficult to quantify and will vary from read-to-read period. Switch gains not created in Orion ICPs 0000852081QTC59 and 1002124819QT0FE were not created in Orion on switch in due to a GTN processing issue. The ICPs and meters were immediately added in Orion on discovery during the audit, and investigation found another two affected ICPs which were added. A new daily check has been implemented from July 2026 to identify ICPs where GNVG is the retailer, but the ICP is not in Orion to prevent recurrence. Agreed switch event reading not applied ICP 1000508622PG3E7 GNC-12313447 16 April 2026 had a reading of 716 recorded in Orion and 717 on the registry, which Nova intends to correct. The error occurred because the GAC was completed manually on the registry and the process to update the reading did not complete in Orion correctly. For outgoing switch event read renegotiations, the agreed switch event reading is made a misread while the read renegotiation is in progress. The opening reading is temporarily unavailable for use in the submission process, leading to temporarily inaccurate forward and/or historic estimate.
Remedial action rating	Remedial timeframe	Remedial comment
In progress	Ongoing	All identified gas gate discrepancies have been corrected in Orion. The switch gain and switch event reading issues contributing to this finding have been addressed, or are being addressed, through the remedial actions and recommendations documented in the Gas Registry and Switching Performance Audit. Nova will continue to review the historic

		estimate process and associated recommendations to ensure ongoing compliance and accuracy of historic estimate calculations
Audited party comment		
The circumstances of the matters outlined in the breach notice.	The matters identified relate to both the historic estimate calculation methodology within Orion and a small number of underlying data quality issues that affected historic estimate inputs. These included incorrect gas gate information, switch gains not established in Orion following receipt of a GTN, and a switch event reading that was not correctly updated in Orion following a read renegotiation. The audit also identified that Orion normalises consumption before applying conversion factors, whereas Rule 35.2 requires conversion to occur before normalisation.	
Whether or not the participant admits or disputes that it is in breach.	Nova admits the breach	
Estimate of the impact of the breaches (where admitted).	Nova considers the impact to be minor, consistent with the auditor's assessment. The identified issues affected a limited number of ICPs and historic estimate scenarios, and the impact of incorrect gas gates on historic estimates is difficult to quantify and varies by read period	
What steps or processes were in place to prevent the breaches?	Nova had controls in place including pre-submission validation of gas gate and ICP information, registry-to-Orion reconciliation checks, switching management processes, and review of historic estimate outputs as part of the reconciliation and submission process	
What steps have been taken to prevent recurrence?	All identified gas gate discrepancies have now been corrected in Orion. In addition, the switch event and switch gain matters that contributed to this finding have been responded to through remedial actions arising from the Gas Registry and Switching Performance Audit, including implementation of a daily check to identify ICPs where GNVG is the retailer but the ICP is not established in Orion, and recommendations relating to the management of agreed switch event readings. Nova will continue to review the historic estimate process and assess any system enhancements required to support ongoing compliance with Rule 35.2.	

5.6 Proportion of Historic Estimates (rule 40.1)

GAS040 submissions are produced from EnergyMarket using Orion information for both GNVG and MEGA ICPs, and all GAS040 submissions have the same format.

This rule requires retailers to report to the allocation agent the proportion of historic estimates contained within the consumption information for the previous initial, interim and final allocations. Six GAS040 initial and revision submission files were examined, and compliance is confirmed.

5.7 Billed vs Consumption Comparison (rule 52)

GAS070 submissions are produced by Orion for both GNVG and MEGA ICPs using the same process. One MEGA ICP switched out effective 1 April 2026 no further GAS070 submissions were required.

GAS070 reports are generated using invoice information calculated by Orion, and invoices are selected for inclusion based on the invoice date. Invoice dates are managed using billing periods in Orion. The TOU billing period remains open on the last day of the month until all TOU ICPs are billed, so all TOU ICPs will have an invoice date of the last day of the month capturing all consumption for that month. Reversals and credit invoices are included against the month they are created.

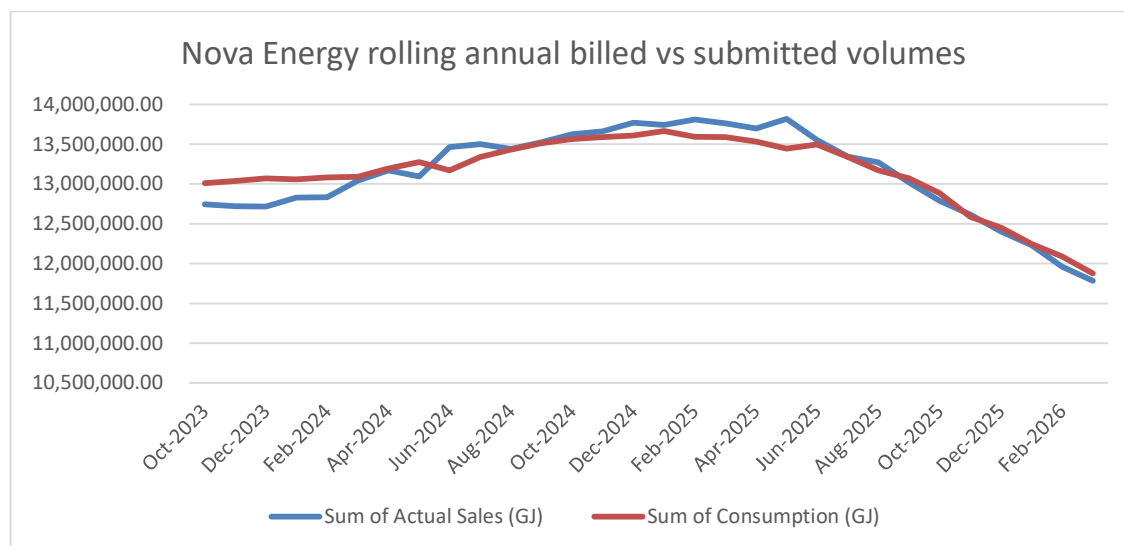
The energy reconciliation team completes a reasonableness check against submitted data before the GAS070 is submitted.

The content of the GAS070 files was proved by selecting four gas gates and checking the invoice data for all ICPs connected to the gas gate against the GAS070 file for March 2026. This confirmed that all the invoices included had invoice dates within March 2026.

The chart below shows a comparison between rolling annual quantities billed and rolling annual consumption information submitted to the allocation agent for a 30-month period. Although the figures cannot be directly compared, as the submitted data is normalised, they can provide a useful indicator of whether under or over reporting of consumption is occurring.

I reviewed the differences between billed and submission data and found they were attributed to timing, with differences reducing as submission volumes were washed up. All of the differences were within $\pm 2.7\%$. No issues were identified.

Comparison between Rolling Annual Submitted Volumes and Gas Supplied



Last Consumption Period Billed	Actual sales (GJ)	Consumption (GJ)	Difference Between Sales and Submitted Consumption (GJ)	Sales/Submission
Oct-2023	12,744,149.82	13,007,602.81	-263,452.99	97.97%
Nov-2023	12,717,796.03	13,040,017.54	-322,221.51	97.53%
Dec-2023	12,715,762.98	13,069,789.62	-370,584.38	97.29%
Jan-2024	12,826,315.68	13,057,408.43	-231,092.75	98.23%
Feb-2024	12,830,553.39	13,082,848.98	-252,295.59	98.07%
Mar-2024	13,043,616.63	13,089,569.39	-45,952.76	99.65%
Apr-2024	13,173,163.74	13,196,188.92	-23,025.18	99.83%
May-2024	13,091,362.79	13,273,080.38	-181,717.60	98.63%
Jun-2024	13,464,000.68	13,170,286.18	251,001.67	102.23%
Jul-2024	13,499,506.48	13,338,271.19	68,683.95	101.21%
Aug-2024	13,441,086.98	13,430,873.74	10,213.25	100.08%
Sept-2024	13,523,074.17	13,513,542.13	9,532.04	100.07%
Oct-2024	13,625,559.22	13,566,018.42	59,540.80	100.44%
Nov-2024	13,660,756.64	13,588,008.99	72,747.64	100.54%
Dec-2024	13,767,426.71	13,609,207.89	158,218.83	101.16%
Jan-2025	13,740,521.34	13,663,118.56	77,402.79	100.57%
Feb-2025	13,811,005.08	13,590,183.72	220,821.36	101.62%
Mar-2025	13,761,999.43	13,589,148.30	172,851.12	101.27%
Apr-2025	13,696,457.25	13,529,747.15	166,710.10	101.23%
May-2025	13,818,062.44	13,445,121.20	372,941.23	102.77%

Last Consumption Period Billed	Actual sales (GJ)	Consumption (GJ)	Difference Between Sales and Submitted Consumption (GJ)	Sales/Submission
Jun-2025	13,553,402.34	13,495,544.69	57,857.65	100.43%
Jul-2025	13,343,626.62	13,338,225.58	5,043.48	100.04%
Aug-2025	13,268,865.67	13,171,583.72	-286,046.03	100.74%
Sept-2025	13,017,601.60	13,071,414.51	-395,918.51	99.59%
Oct-2025	12,790,338.26	12,885,269.70	-387,848.66	99.26%
Nov-2025	12,615,390.46	12,588,181.13	-221,446.87	100.22%
Dec-2025	12,403,061.51	12,451,228.55	-253,715.15	99.61%
Jan-2026	12,230,965.99	12,246,762.74	-182,241.20	99.87%
Feb-2026	11,959,405.94	12,085,789.06	-259,838.72	98.95%
Mar-2026	11,785,761.75	11,877,016.51	-178,590.59	99.23%

5.8 Gas Trading Notifications (rule 39)

A retailer must give notice to the Allocation Agent where they commence or cease to supply gas under a supplementary agreement to a transmission services agreement, or amend information required to be provided under the supplementary agreement under rule 39.2.

Nova Energy confirmed that processes exist to ensure that the trading team informs the reconciliation team where there are changes to supplementary agreements for allocated gas gates. There are currently no supplementary agreements in place for any allocated gas gates.

6. Recommendations

As a result of this audit, I have made two recommendations. Further recommendations relating to validation and accuracy of Orion and registry data are made in the **Gas Switching and Registry Performance Audit Report**.

Report section	Recommendation
2.2	Review TOU meter register content codes: periodically validate the TOU register content codes applied against meter owner information to ensure that the correct TOU conversion process is applied.
2.3.2	Gas type corrections: Correct the gas type mapping in Orion for RPR30801, TAU07001, IGW11901, BRO36301, RPR30802 and TCC00201.

Appendix 1 – Control Rating Definitions

Rating	Definition
Ineffective	The design of controls <u>overall is ineffective</u> in addressing key causes and/or consequences. Documentation and/or communication of the controls <u>does not exist</u> (e.g. policies, procedures, etc.). The controls are <u>not in operation</u> or have not yet been implemented.
Needs improvement	The design of controls <u>only partially</u> addresses key causes and/or consequences. Documentation and/or communication of the controls (e.g. policies, procedures, etc.) are <u>incomplete, unclear, or inconsistent</u>. The controls are <u>not operating consistently</u> and/or effectively and have not been implemented in full.
Acceptable	The design of controls is <u>largely adequate and effective</u> in addressing key causes and/or consequences. The controls (e.g. policies, procedures, etc.) <u>have been formally documented but not proactively communicated</u> to relevant stakeholders. The controls are <u>largely operating in a satisfactory manner</u> and are providing some level of assurance.
Effective	The design of controls is <u>adequate and effective</u> in addressing the key causes and/or consequences. The controls (e.g. policies, procedures, etc.) have been <u>formally documented and proactively communicated</u> to relevant stakeholders. The controls overall, are <u>operating effectively</u> so as to manage the risk.

Appendix 2 – Impact Rating Definitions

Rating	Definition
Insignificant	A <u>small number of issues</u> with registry file timeliness and/or accuracy. <u>Negligible impact</u> on other participants or consumers. <u>Did not prevent</u> the process completing. A <u>small number of issues</u> with the accuracy and/or timeliness of files to the Allocation Agent. Corrections <u>were</u> made by the interim allocation. A <u>small number of issues</u> not related to registry or allocation information.
Minor	<u>Some issues</u> with registry file timeliness and/or accuracy. <u>Minor impact</u> on other participants or consumers. <u>Did not prevent</u> the process completing. <u>Some issues</u> with the accuracy and/or timeliness of files to the Allocation Agent. Corrections <u>were</u> made by the interim allocation. A <u>small number of issues</u> not related to registry or allocation information.
Moderate	A <u>moderate number of issues</u> with registry file timeliness and/or accuracy. <u>Moderate impact</u> on other participants or consumers. <u>Did prevent</u> some processes completing. A <u>moderate number of issues</u> with the accuracy and/or timeliness of files to the Allocation Agent. Corrections <u>were not</u> made by the interim allocation. A <u>moderate number of issues</u> not related to registry or allocation information.
Major	A <u>significant number of issues</u> with registry file timeliness and/or accuracy. <u>Major impact</u> on other participants or consumers. <u>Did prevent</u> some processes completing. A <u>significant number of issues</u> with the accuracy and/or timeliness of files to the Allocation Agent. Corrections <u>were not</u> made by the interim allocation. A <u>significant number</u> of issues not related to registry or allocation information.

Appendix 3 – Remedial Rating Definitions

Rating	Definition
Completed	The alleged breach and impact have been resolved. Systems and processes are now compliant.
In progress	Steps are being taken to resolve the alleged breach and impact and ensure systems and processes are compliant.
No action	Participant undertakes no action to resolve or address auditor controls or impact assessments for commercial reasons.

Appendix 4 – Meter pressure differences causing pressure factor differences under maximum permissible errors

The following ICPs have an Orion meter outlet pressure which does not match the meter pressure recorded by the meter owner and are unlikely to result in pressure factor errors outside the maximum permissible limits in NZS 5259.

ICP	Meter Identifier	Meter Pressure	Orion meter pressure	Meter pressure match
0007000951NGCB1	20EG1641	1.5	2.5	-1
0000236808QT03E	600881526	2.5	3	-0.5
1000502699PG1C1	08K572458	2.5	3	-0.5
0000278971QT163	03D468290	2.5	3	-0.5
0000587751QT3CA	600845764	2.5	3	-0.5
0000666411QT205	600871431	2.5	3	-0.5
0001410740QT453	600849865	2.5	3	-0.5
0003033701NG395	600831932	1.2	1.5	-0.3
0001009672NG112	600846006	2.5	2.75	-0.25
0007003046NG03F	600700944	2.5	2.75	-0.25
0001015067NG397	600794700	2.5	2.75	-0.25
0004002542NGE5B	600830979	2.5	2.75	-0.25
0002011838NG907	600750145	2.5	2.75	-0.25
0000227831QT0D6	600794962	2.75	3	-0.25
0000480041QT669	600794958	2.75	3	-0.25
0001443215QT585	600871449	2.5	2.75	-0.25
0002380951QTDB4	600870727	2.5	2.75	-0.25
1001138987QTD2C	600756266	2.75	3	-0.25
0001009826NGE1B	600849129	2.5	2.75	-0.25
0001397701QT4FD	600759071	2.5	2.75	-0.25
0007003171NG309	600794662	2.75	2.5	0.25
1001294699NGC0F	600841175	2.75	2.5	0.25

ICP	Meter Identifier	Meter Pressure	Orion meter pressure	Meter pressure match
0000653781QT8ED	600847049	3	2.75	0.25
0000877561QTD0B	600841418	3	2.75	0.25
1001105561QT119	04E100355	2.75	2.5	0.25
0001223060PGE11	600828386	1.5	1.2	0.3
0001493080PGBC5	600828423	1.5	1.2	0.3
0001511596PGDEB	600679554	1.5	1.2	0.3
0001962930PG2E0	14P3615	1.5	1.2	0.3
0046110422PGC44	15P0393	1.5	1.2	0.3
0087426260PG19F	23P1205	1.5	1.2	0.3
0001813401QT99E	834109431	2.5	2	0.5
0001838271QTCE8	280686	2.5	2	0.5
0001854681QT926	22EG0304	2.5	2	0.5
0001857431QT373	17EG8545	2.5	2	0.5
0000042771QT0DC	600590753	1.5	1	0.5
0001446758QTA5E	24X874896	3	2.5	0.5
0002246401QT5A8	19M519925	2.75	2	0.75
0001710781QT34D	20EG0170	2.5	1.5	1
0001142600PG8AB	13P0347	2.5	1.5	1
0002125811QTF05	22EG0392	2.5	1.5	1
0000416291QT328	600894745	2.5	1.5	1

Appendix 5 – Gas gate differences

I compared each ICP's network and gas gate in Orion to the registry list for ACTC and ACTV ICPs, and 14 gate discrepancies were identified for gates which have different notional delivery points. 13 ICPs underwent backdated gas gate changes, and one had an incorrect gate entered manually in Orion.

Although the energy reconciliation team has a process to identify ICPs with incorrect gas gates and correct them in submission files, the Orion gas gate determines the gas temperature and gas type for conversion, and the Seasonal Adjusted Daily Shape Values (SADSV) applied to calculate historic estimates. The impact of the incorrect Orion gas gates on gas conversion and submission accuracy was assessed:

- all of the gas gates have the same gas type, so there is no impact on gas composition inputs into the conversion process,
- temperatures used to calculate the temperature factor vary between gas gates, and differences over 2 degrees C are likely to result in maximum permissible temperature factor errors over $\pm 0.7\%$ for in service meters (which is the maximum allowed under NZS 5259); I determined the maximum monthly temperature differences for the affected gas gates were all within ± 0.8 degrees C and unlikely to cause temperature errors outside maximum permissible errors, and
- different Seasonal Adjusted Daily Shape Values (SADSV) are published for each gas gate, as they are calculated independently by the Allocation Agent; the impact of the differences on historic estimate calculations is difficult to quantify and will vary from read-to-read period.

ICP	Registry gas gate	Gas type for registry gas gate	Orion gas gate	Gas type for Orion gas gate	Maximum monthly temperature difference (Orion-registry)	Allocation Group Code
0003027815NG95C	MTG17301	R	HTV11301	R	+0.8 degrees C	6
0003033279NG1D9	MTG17301	R	HTV11301	R	+0.8 degrees C	6
0003066938NG863	MTG17301	R	HTV11301	R	+0.8 degrees C	6
0009000666NG3C3	MTG17301	R	HTV11301	R	+0.8 degrees C	4
1002187314QT8A3	HEN74101	X	WTK33901	X	+0.6 degrees C	6
1002189827QT855	HEN74101	X	WTK33901	X	+0.6 degrees C	6
1002195293QT286	HEN74101	X	WTK33901	X	+0.6 degrees C	6
1002195639QT409	HEN74101	X	WTK33901	X	+0.6 degrees C	6
1002195955QT7E8	HEN74101	X	WTK33901	X	+0.6 degrees C	6
1002196059QTF1F	HEN74101	X	WTK33901	X	+0.6 degrees C	6
1002188466QTB19	HEN74101	X	WTK33901	X	+0.6 degrees C	6

ICP	Registry gas gate	Gas type for registry gas gate	Orion gas gate	Gas type for Orion gas gate	Maximum monthly temperature difference (Orion-registry)	Allocation Group Code
0000773641QTBA7	WKM17701	X	WTK33901	X	+0.5 degrees C	6
1002210498QTEE5	WTK33901	X	HEN74101	X	-0.4 degrees C	6
1002188856QT0ED	WTK33901	X	WST03610	X	+0.3 degrees C	6

Appendix 6 – Network pressure differences causing temperature factor differences over maximum permissible errors

The following ICPs have an Orion network pressure consistent with the Orion meter pressure, which does not match the network pressure recorded by the distributor and are likely to result in temperature factor errors outside the maximum permissible limits in NZS 5259.

ICP	Network pressure	Orion network pressure	Network pressure difference	Orion meter pressure
0000341351QTFDC	700	200	500	200
0000547291QT590	1000	3	997	3
0000905551QT766	700	200	500	200
0001539691QTD51	560	3	557	3
0001787571QTAF9	560	7	553	7
0001793051QTCC8	560	1.5	558.5	1.5
0001793161QT234	560	3	557	3
0004219384NG1E4	950	1.5	948.5	1.5
1000510797PGOFF	950	3	947	3

The following ICPs have an Orion network pressure inconsistent with the Orion meter pressure, which also does not match the network pressure recorded by the distributor and are likely to result in temperature factor errors outside the maximum permissible limits in NZS 5259.

ICP	Network pressure	Orion network pressure	Network pressure difference	Orion meter pressure
0000922271QT89C	1000	10000	-9000	2.5
0000236577QTFB5	16	440	-424	2.5
0000237172QTF5B	16	440	-424	2.5
0001412669QTD13	16	440	-424	2.5
0002075751QT5B7	16	440	-424	1.5
0002076081QT517	16	440	-424	2.5
0002076851QT858	16	440	-424	2.5
0002077011QTB50	16	440	-424	2.5
0002078811QT23D	16	440	-424	2

ICP	Network pressure	Orion network pressure	Network pressure difference	Orion meter pressure
0002095571QTF98	16	440	-424	3
0002096061QT2D0	16	440	-424	2.5
0002096221QTA72	16	440	-424	2.5
0002104911QTE6C	16	440	-424	2.5
0002128731QT77F	16	440	-424	2.5
0002133521QTD04	16	440	-424	2.5
0002134181QT0AA	16	440	-424	2.5
0002140041QT278	16	440	-424	2.5
0002144211QT6F7	16	440	-424	2.5
0002146541QT2BD	16	440	-424	2.5
0002150651QT632	16	440	-424	2.5
0002155941QT4B0	16	440	-424	2.5
0002166631QTD2E	16	440	-424	2.5
0002170061QTE01	16	440	-424	2.5
0002175351QTDDA	16	440	-424	2.5
0002178381QTAB8	16	440	-424	2.5
0002245491QT8AF	16	440	-424	2.5
0002282001QTB99	16	440	-424	2.5
0002309761QTFC2	16	440	-424	2.5
0002317371QT94F	16	440	-424	2.5
0002318101QTF75	16	440	-424	2.5
0002318551QTB7C	16	440	-424	2.5
0002325631QTC83	16	440	-424	2.5
1000495290PG459	16	440	-424	2.5
1000499840PG891	16	440	-424	2.5
1000517568PG151	16	440	-424	2.5

ICP	Network pressure	Orion network pressure	Network pressure difference	Orion meter pressure
1000521643PG53F	16	440	-424	2.5
1000523119PG3E4	16	440	-424	2.5
1000524480PG337	16	440	-424	2.5
0000079631QT5B1	3	420	-417	1.5
0001406307QTA1C	3	420	-417	2.5
0002112841QT241	16	420	-404	2.5
0001208361NAB3E	650	180	470	125
0001209568NA2C9	650	180	470	70
0001210623NA9FA	650	180	470	2.5
0001213454NA98A	650	180	470	2.5
0001218671NAC77	650	180	470	2.5
0001218724NA034	650	180	470	2.5
0001229726NA03D	650	180	470	1.5
0002320851QT258	950	315	635	3
1000510797PG0FF	950	3	947	1020
0004219384NG1E4	950	1.5	948.5	2.5
1002039473QT73E	1000	35	965	2.5
0001410620QT2A7	1000	7	993	3
1002053183QTE34	1000	7	993	860
0000547291QT590	1000	3	997	1.5

I rechecked the ICPs where non-compliance was recorded for incorrect network pressures in the previous audit and found five were resolved, and three were switched out before they were resolved. The previous audit exception for 0001787571QTAF9 is unresolved and included in the table above. The other exception remains unresolved and is unlikely to have a material impact on the pressure factor:

ICP	Network pressure	Orion network pressure	Network pressure difference	Orion meter pressure
11000589557PG673	315	2.5	312.5	2.5

Appendix 7 – Nova Comments

Nova have reviewed this report and their comments are contained within its body.