Gas Distributor and Meter Owner Performance Audit Report

For

Nova Energy Limited

Prepared by

Bernie Cross: Crosshaven Consulting

Date of Audit: 9 October 2024

Date Audit Report Complete: 28 November 2024

Executive Summary

This Performance Audit was conducted at the request of the Gas Industry Company (GIC) in accordance with Rule 88 of the Gas (Switching Arrangements) Rules 2008 in effect 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 GIC.

The last audit was performed in late 2020 and since then, all Nova personnel previously responsible for distribution and metering activities have moved on and the new members of the metering team are still developing their understanding of these functions and processes. Nova have undertaken an internal review of the processes to support these functions and are implementing a number of the recommendations from this internal review. During this internal review, the meter maintenance program was paused and is scheduled to resume at the start of 2025.

Nova is also planning to replace its current CMMS system which is likely to require a material change audit to be completed prior to the migration of data and functionality.

The summary of report findings in the table below shows that Nova's control environment is 'effective' for seven of the areas, 'acceptable' for four areas, 'needs improvement' for five areas and 'ineffective for three areas evaluated. One area was not accessed as no occurrences were identified during the audit period.

12 of the 20 areas evaluated were found to be compliant. Seven breach allegations are made in relation to:

- accuracy and completeness of network information on the registry,
- accuracy and completeness of metering information on the registry,
- accuracy and completeness of meter installation and meter test dates within the CMMS to enable maintenance tasks to be appropriately scheduled to comply with **NZS5259:2015**,
- inconsistent retention of documentation to comply with **NZS5259:2015,**
- accuracy and completeness of paperwork returned from field contractors to comply with **NZS5259:2015**

15 recommendations were made to improve future compliance. The recommendations are listed in **section 13** and the relevant report sections.

Summary of Report Findings

Issue	Section	Control Rating (Refer to Appendix 1 for definitions)	Compliance Rating	Comments
General obligations	2	Acceptable	Compliant	
New connections	3	Acceptable	Compliant	Two recommendations made to improve process effectiveness. • Implement a step in the ICP creation process to first search the registry for the new connection address to ensure it is unique and that an ICP has not already been created for the same property. • Implement a process to proactively monitor and escalate to the respective retailer the initial new connection addresses populated in the registry so that address attributes such a lot numbers can be updated as soon as possible once an ICP is livened.
Registry information management	4	Needs improvement	Compliant	No process to maintain current accurate distributor information. One recommendation made to improve process effectiveness. • Complete a major change audit prior to the replacement of the CMMS system
Network pressure	4.1	Needs improvement	Not compliant	Five ICPs were found to have incorrect network pressures recorded on the registry
ICP altitude	4.2	Effective	Compliant	
Gas gate	4.3	Effective	Compliant	

Issue	Section	Control Rating (Refer to Appendix 1 for definitions)	Compliance Rating	Comments
Load shedding category	4.4	Needs Improvement	Not compliant	Data analysis of the load shedding category against other registry fields identified 15 ICPs with incorrect categories. Five ICPs have a designation of 7 (Critical care designation) however these ICPs are not currently listed on the GIC website of active critical care designations. Two recommendations made to improve process effectiveness. • Check load shedding categories for reasonableness when changes are requested, and also at least annually by comparing to retailers' gas allocation group assignments and also annualised consumption volumes. • Develop a process to monitor the GIC active designations list and expiry dates for load shedding category 7 against the registry and work with the respective retailers to ensure that the registry information is current and up to date.
Maximum hourly quantity	4.5	Effective	Compliant	
Physical address	4.6	Needs improvement	Not compliant	Five ICPs had addresses which were not readily locatable and were corrected during the audit. 12 ICPs had duplicate addresses recorded. Ten were updated to be unique during the audit, and the other 14 ICPs genuinely have more than one meter in the same location and are distinguished by their meter number.
Decommissioned status	4.7	Needs improvement	Not compliant	11 ICPs with INACP status were found to be for check metering installations as there are not part of the distribution network and the status should be DECR.

Issue	Section	Control Rating (Refer to Appendix 1 for definitions)	Compliance Rating	Comments
Connection statuses	4.8	Acceptable	Compliant	One recommendation made to improve process effectiveness. • Follow up INACP ICPs where all gas appliances have been removed to confirm if the service lines have been isolated at the mains and the status can be updated to DECR.
Registry validation and correction - distributor	4.9	Ineffective	Not compliant	The monthly registry distributor report is not reviewed, and discrepancies are not resolved by 1600 hours on the 15th business day of each month. One recommendation made to improve process effectiveness. • Implement a process to monitor the accuracy and investigate any exceptions of distributor information between the registry and CMMS and any other systems and ensure the registry is updated as soon as an exception is confirmed
Creation and decommissioning of gas gates	5	No examples of changes	No examples of changes	
Management of network price category codes	6	Effective	Compliant	
Management of loss factor codes	7	Effective	Compliant	
Disclosure on application - distributor	8	Effective	Compliant	

Accuracy of meter information	9	Ineffective	Non-compliant	Eight GMS with diaphragm meters >25m3/hr were found to outside their compliance periods. Seven GMS with rotary meters were found to be outside their compliance period. One corrector was found to be outside their compliance period. Record keeping relating to the maintenance and operation of GMS is not compliant with **NZS5259:2015**. Six recommendations made to improve process effectiveness. • Implement a validation check of TOU meters design minimum (Q_{min}) and maximum (Q_{max}) flow rate to the measured hourly flow rate to identify meters that may be close to or are operating the meter design flow rates. • Complete the review of the process to monitor and notification to retailers of time synchronisation changes greater than 300 seconds. • Work with the meter suppliers and retailers for the meters installed but without out meter manufacturer year or install date to populate the missing information within the meter asset register to enable effective monitoring of meter interval test periods for each meter. • Develop functionality within the meter asset register to identify diaphragm meters over 25m^3/hr that have been reused and the ongoing compliance period is 10 years. • Ensure all maintenance records including service provider paperwork including photos are archived within the CMS system so that they can be referred to during the life of the asset. • Work with service providers to ensure all maintenance paperwork has all required fields completed by the onsite technician prior to closing the maintenance activity.
New Connections - metering	10	Acceptable	Compliant	

Registry validation and correction - metering	11	Ineffective	Not compliant	The monthly registry meter owner report is not reviewed, and discrepancies are not resolved by 1600 hours on the 15th business day of each month. Six ICPs have a meter incorrectly recorded as being still installed on the registry. 2,055 ICPs have a meter location of "0" recorded on the registry. Two ICPs (0002378299QT3DD - meter NE15052, 0002381525QT44F - NE15128) were correctly recorded with five digits on the registry however CMMS incorrectly recorded as four digits. 25 ICPs with meter price category code exceptions 40 TOU metered ICPs have both the standard meter and TOU meter flags set to yes. One metered ICP (0000071521NA7E5) where the advanced meter flag is incorrectly set to yes. Five of the 43 TOU metered ICPs did not have the logger owner code set to NOVA. Ten of the 42 TOU metered ICPs with telemetry did not have the Telemetry owner code set to NOVA. Two recommendations made to improve process effectiveness. • Implement a process to monitor the accuracy and investigate any exceptions of meter owner information between the registry and CMMS and any other systems and ensure the registry is updated as soon as an exception is confirmed. • Populate the meter location code as part of the replacement of the CMMS to the MEX system and working with the respective retailers for each ICPs without a meter location code on the registry.
Disclosure on application - metering	12	Effective	Compliant	

Contents

1. Pre-Audit and Operational Infrastructure Information

1.1 Scope of Audit

The purpose of this audit is to assess the systems, processes, and performance of Nova in terms of compliance with these rules. The audit was conducted in accordance with terms of reference prepared by GIC.

The field audit was carried at the Wellington offices of Nova on 9 October 2024.

The scope of the audit includes the distributor responsibilities and meter owner responsibilities that only relate to metering installed on distribution networks.

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]

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-compliance has been evaluated.

1.3 General Compliance

The Market Administrator confirmed that no alleged breaches have been recorded for Nova since the last audit in relation to its role as a distributor or meter owner.

1.4 Provision of Information to the Auditor (Rule 91)

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

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

Information was not required from any other participant in relation to this audit. I consider that Nova have complied with the requirements of this rule.

1.5 Summary of Previous Audit

Five alleged breaches were recorded in relation to the 2020 distributor and meter owner audit, and the outcomes are recorded in the table below.

Breach Allegation	Breach No.	Rule	Section in this report	Outcome
Five ICPs had incorrect pressures recorded on the gas registry, which were updated during the audit. • ICPs 0000073200NAAB7, 0000073220NA7E2 and 0000073162NA6C1 had incorrect network pressures recorded in CMMS and the registry. • ICPs 0001549724NA7EB and 0000073584NA1F5 had incorrect pressures recorded on the registry, but correct pressures recorded in CMMS.	2021-045	GSAR 58.1	4.1	The Market Administrator did not raise any material issues
ICP 0000073192NA6D6 has load shedding category 4 assigned but is expected to consume over 10,000 GJ per annum and does not meet the requirements for load shedding category 4.	2021-046	GSAR 58.1	4.4	The Market Administrator did not raise any material issues
ICP 0000071521NA7E5 had an incorrect MHQ recorded on the registry and was updated during the audit.	2021-047	GSAR 58.1	4.5	The Market Administrator did not raise any material issues
29 ICPs had addresses which were not readily locatable and were corrected during the audit. 24 ICPs had duplicate addresses recorded. Ten were updated to be unique during the audit, and the other 14 ICPs genuinely have more than one meter in the same location and are distinguished by their meter number.	2021-048	GSAR 58.1	4.6	The Market Administrator did not raise any material issues

Breach Allegation	Breach No.	Rule	Section in this report	Outcome
Network pressure corrections for 0000073200NAAB7, 0000073220NA7E2, 0000073162NA6C1, 0001549724NA7EB and 0000073584NA1F5 were not made as soon as practicable. The delayed corrections did not result in errors outside the allowable thresholds in **NZS5259:2015**. 23 ICPs were found to have incorrect network pressures during the previous audit and were updated during this audit. The affected ICPs were 0000073254NA3B5, 0000073220NA7E2, 0000071569NA754, 0000073198NA447, 0000073234NAC45, 0000072849NADE9, 0000071576NA227, 0000122483NA383, 0000092681NA364, 0000071393NA3D4, 0000071410NA55C, 0000071411NA919, 0000071473NA66C, 0000071484NABB1, 0000071537NACC7, 0000071540NA450, 0000071548NA644, 0000071615NA214, 0000072141NA6F4, 0000072161NABA1, 0000074497NAAFC, 0000074498NA522, and 0000075044NA6DF. Reasonable endeavours were not used to maintain current and accurate information.	2021-049	GSAR 58.1	4.9	The Market Administrator did not raise any material issues
Meter serial numbers 852249 and 8833860 did not have in service testing completed during the accepted testing interval specified in **NZS5259:2015**. Meter serial numbers 86S6358195 and 97Y624524 did not have in service testing completed during the accepted testing interval specified in **NZS5259:2015**, and a meter replacement field services request had been issued.	2022-004	GDRR 27	9.2	The Market Administrator did not raise any material issues

Breach Allegation	Breach No.	Rule	Section in this report	Outcome
The previous audit found that ICPs 0001433810QT879, 0002378286QT6AE, 0002378299QT3DD, 0002378313QTD02, 0002380261QT942 and 0002380803QTC3D had meters recorded in the registry but according to Nova's CMMS records the meters are removed. Nova intends to update these exceptions.	2022-005	GSAR 58.1	11.15	The Market Administrator did not raise any material issues
ICPs 0000920651QTA88 and 0002379337QT0FD had their meters removed, but the registry had not been updated. The mismatch was identified and corrected during the audit.	2022-006	GSAR 61.1	11.15	The Market Administrator did not raise any material issues
ICP 0000073432NABCC meter 937723 was recorded with eight digits but should have had seven digits. The mismatch was identified and corrected during the audit.	2022-007	GSAR 58.1	11.6	The Market Administrator did not raise any material issues
2,122 ICPs with a metered status have no meter location recorded on the registry. Three of the affected ICPs had metering installed in the past three years and were updated during the audit.	2022-008	GSAR 58.1	11.2	The Market Administrator did not raise any material issues
31 ICPs had an incorrectly recorded logger owner and were updated during the audit.	2022-009	GSAR 58.1	11.11	The Market Administrator did not raise any material issues
15 ICPs had an incorrectly recorded telemetry owner and were updated during the audit.	2022-010	GSAR 58.1	11.13	The Market Administrator did not raise any material issues

1.6 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 92 of the 2015 Amendment Version of the Gas (Switching Arrangements) 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 response was received.

Party	Response	Comments provided	Attached as appendix
Nova Energy Ltd	Comments on the draft audit report	21 November 2024 by email	Nova's comments have been added to the remedial action and audited party comment sections of the non compliance and recommendation boxes within this report.

1.7 Gas Gate and ICP Data

Nova operates across 50 gas gates involving a mix of direct connected gas gates for large industrial consumers and allocated gas gates where a number of retailers trade on these networks.

No gas gates have been created or decommissioned during the audit period.

The table below lists the relevant Gas Gates:

Gas Gate	Description
FLB15601	Flat Bush (Nova)
HST05203	Hastings (Nova)
HUN15302	Hunua (Nova)
HWA20802	Hawera (Nova)
TWB24810	Tawa B (Nova)

1.8 ICP data

A registry list file was reviewed, and a summary of this data by "ICP status" is as follows:

ICP Status	Number of ICPs
New	-
Ready	-
Active Contracted (ACTC)	202
Active Vacant (ACTV)	-
Inactive Transitional (INACT)	21
Inactive Permanent (INACP)	36
Decommissioned (DECR)	1

2. General obligations

2.1 Participant registration information (Rules 7 and 10)

All registry participants must supply registration information to the registry operator. Registration information consists of:

- the name of the registry participant, and
- the registry participant's telephone number, physical address, facsimile number, email address, and postal address, and
- identification as to which class, or classes, of registry participant (retailer, distributor, or meter owner) that the registry participant belongs.

Registration information must be given in the form and manner required by the registry operator as approved by the industry body. Every person who is a registry participant at the commencement date must supply the registration information within 20 business days of the commencement date. A person who becomes a registry participant after the commencement date must supply the registration information within 20 business days of becoming a registry participant.

Nova's participant registration information was reviewed and found that the participant information for participant code NOVA (Nova Gas) has three email addresses populated, one of which is no longer in use.

Nova is aware of the requirement to keep participant register information up to date and have now revised this information.

2.2 Obligation to act reasonably (Rule 34)

Every registry participant must act reasonably in relation to its dealings with the registry and, in doing so, must use its reasonable endeavours to co-operate with other registry participants.

Processes for managing queries and complaints about Registry information were reviewed. No examples of Nova acting unreasonably were found.

Compliance is confirmed.

2.3 Obligation to use registry software competently (Rule 35)

Each registry participant must ensure that any software for the registry is used in a proper manner by competent employees or by persons under the supervision of those employees.

No registry participant may request, permit, or authorise anyone other than the registry operator to provide support services in respect of any software for the registry.

Each registry participant must appoint a nominated manager to be responsible for all that registry participant's communications with the registry.

No examples of Nova using Registry software incompetently were found. Access to modify registry information is restricted, and staff are appropriately trained. Nova only uses Jade for Registry support services.

Compliance is confirmed.

3. New connections

Nova described their process for creating new ICPs and there had been no significant change since the last audit.

Nova receives applications for new ICPs from Nova's retail team once agreement with the customer has been reached, and the details required to create the ICP are available.

3.1 ICP creation (Rules 5.2, 43.1 and 43.2)

Nova does not allow ICPs to be connected downstream of other ICPs. Any applications that required this would be rejected. As part of the application process Nova checks the requested address in Mapviewer to identify whether the property already has a gas connection, or an address may be incorrect.

Nova does not currently search the registry for the new connection address to ensure that there is not already an ICP with the same address.

Recommendation	Audited party comment
Implement a step in the ICP creation process to first search the registry for the new connection address to ensure it is unique and that an ICP has not already been created for the same property.	**Response:** Accepted **Comments:** This will be taken up with our metering administration team

If there are further changes to address information such as replacing lot numbers with full street address, then Nova is reliant on the retailer to notify Nova of this change.

Recommendation	Audited party comment
Implement a process to proactively monitor and escalate to the respective retailer the initial new connection addresses populated in the registry so that address attributes such a lot numbers can be updated as soon as possible once an ICP is livened.	**Response:** Accepted **Comments:** This will be taken up with our metering administration team

ICP requirements

ICPs must be assigned for each consumer installation connected to Nova's distribution system. The ICP must represent a single point of connection, which:

- may be isolated from the distribution system or transmission system without affecting any other consumer installation,
- has a single loss factor and a single network price category; and
- has its gas volume measured directly by a single set of metering equipment complying with **NZS5259:2015** or measured indirectly by a method approved by the industry body.

To determine compliance with each of these requirements, I reviewed Nova's processes and checked all ICPs on the registry list generated on 3 April 2024. Compliance is confirmed.

ICP Format

ICPs should be created as a unique 15-character identifier assigned to each ICP, having the format yyyyyyyyyyxxccc, where:

yyyyyyyyyy	is the gas connection number specified by the distributor and unique to that connection in the distributor's records
xx	is an alphabetic combination, determined by the industry body, for use by the distributor when creating the ICP identifier
ccc	is an alphanumeric checksum generated by an algorithm specified by the industry body

Nova uses their Gas Registry ICP generator spreadsheet to create ICP numbers. Nova's retail team provides a unique premises number for each requested ICP, which is entered into Gas Registry ICP generator spreadsheet and combined with Nova's distributor code, a checksum generated by the spreadsheet, and leading zeros to make a total of 15 characters.

Review of the registry list confirmed all ICPs are in the correct format.

3.2 ICP assignment (Rule 51.1, 51.2, 51.3, 53.1 and 53.4)

Distributors must assign an ICP within three business days of receiving a request for an ICP from a retailer or advise the retailer or the reason it is unable to assign an ICP.

Once confirmation is received that the consumer installation is connected, the following information must be updated on the registry within two business days:

- ICP identifier,
- ICP creation date,
- responsible distributor code, and
- physical address of the consumer installation.

All remaining distributor ICP parameters (apart from ICP and connection status) must be entered on the registry within two business days of confirming those values. The distributor may change the ICP status to new at any time before the retailer changes the ICP status.

Installation work is scheduled and completed by Nova's technicians and contractors, and work request and completion paperwork are sent by email. All information required is populated on the registry as soon as possible after connection.

There were no new connections completed during the audit period. Compliance is confirmed.

4. Registry information management (Rule 58.1 and 58.2)

The distributor must use its reasonable endeavours to maintain current and accurate information in the registry in relation to the ICPs and the ICP parameters for which it has responsibility.

New connections and installation changes are completed by Nova's contractors and technicians. Work requests and job completion details are transferred via email, and CMMS (Technology One) and the registry are updated on receipt of job completion details. The registry is usually updated first to ensure that the timeframes set out in the rules are met.

Nova's distributor information is updated manually using the registry web interface. Registry attributes and event dates are determined from paperwork returned from the field. As part of the update process the user confirms that the update is successful; acknowledgement files are not separately reviewed.

Some distributor maintained fields on the registry are excluded from CMMS. The following fields are recorded on the registry but not in CMMS:

Registry field excluded from CMMS	Comment
ICP type	The ICP type is "GN" for all ICPs on Nova's networks
Installation details	This is an optional notes field on the registry
Load shedding category	
Loss factor code	The loss factor is "NA" for all ICPs on Nova's networks
Maximum hourly quantity	The MHQ is recorded as zero for most ICPs
Network price details	This is an optional notes field on the registry
Physical address postcode	The postcode can be derived from other address information

Nova is looking to replace its current CMMS for distributor and meter owner functions from Technology One to algin with its generation business CMMS (MEX). This change will enable all distributor registry fields to be appropriately mapped.

Recommendation	Audited party comment
Complete a major change audit prior to the replacement of the CMMS system.	**Response:** Accepted **Comments**: Full metering audit has been implemented and is expected to be completed by the end of 2024

During the field audit it was found that due to personnel changes during the audit period at Nova that there is no current process to compare data from CMMS to the registry to enable discrepancies to be identified. The reporting and validation process including recommendations for improvement are discussed further in **section 4.9**.

Registry notification files are not reviewed, reliance was placed on the discrepancy reporting performed by a previous team member to identify updates made by other parties which affect Nova.

Each of the Meter Owner parameters are discussed individually in **sections 11.1** to **11.8** below.

Registry information management			
Non-compliance	Description		
Report section: 4 Rule: 58.1 From: 1 January 2021 To: 3 April 2024	Audit history: No Controls: Needs Improvement Impact: Minor	No process to maintain current accurate distributor information.	
Remedial action rating	Remedial timeframe	Remedial comment	
In progress	31st March 2025	Process to be developed using new CMMS.	
Audited party comment			
The circumstances of the matters outlined in the breach notice.	Changes in personal in the last 2 years have led to a breakdown of systems		
Whether or not the participant admits or disputes that it is in breach.	Nova do not dispute the breach		
Estimate of the impact of the breaches (where admitted).	Minor		
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this.		
What steps have been taken to prevent recurrence?	Nova is to return registry update responsibilities to a specialist metering team to ensure a "four eyes" review of the information being updated into the registry		

4.1 Network pressure

Network pressure is held in CMMS and verified on entry by checking the Mapviewer GIS information.

Network pressure accuracy

The rules governing ICP parameters as maintained by the distributors describe network pressure as "the value of the nominal operating pressure, expressed numerically in kilopascals, of the distribution system or transmission system to which the ICP's consumer installation is connected."

A review of the accuracy of network pressures was undertaken by identifying streets where one or more ICPs on a particular street had one pressure and the remaining ICPs had a different pressure.

Four streets were identified, and five connected ICPs were checked and found that ICPs 0000073191NAA16, 0000071573NAF68, 0000073413NAADC, 0000073218NA20E and 0000073440NAE14 had an incorrect network pressure of 600 kPa recorded in CMMS and the registry where the correct network pressure is 650 kPa.

All five ICPs with incorrect network pressures were corrected during the audit.

Where the registry pressure was incorrect, there could be an impact on the retailer's Joule Thomson Effect calculation which will vary depending on the ground temperature applied. The difference in the Joule Thomson Effect adjustment was +0.25°C. Even at low ground temperatures, this is not expected to result in differences outside the allowable threshold set in **NZS5259:2015**.

Nova conducts regular maintenance of District Regulator Stations (DRS) on a six monthly frequency. The DRS maintenance schedule was reviewed to confirm that all DRS's have had the network pressures checked in the last six months.

Network pressure accuracy		
Non-compliance	Description	
Report section: 4.1 Rule: 58.1 From: 1 January 2021 To: 3 April 2024	Audit history: Yes Controls: Needs improvement Impact: Minor	Five ICPs were found to have incorrect network pressures recorded on the registry.

Remedial action rating	Remedial timeframe	Remedial comment
Completed	Completed	Nil

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Historical issue with manual data input
Whether or not the participant admits or disputes that it is in breach.	Nova does not dispute the breach
Estimate of the impact of the breaches (where admitted).	Minor
What steps or processes were in place to prevent the breaches?	Full audit of gas data to be undertaken in Q4 2024
What steps have been taken to prevent recurrence?	Gas registry administration is to be transitioned to a dedicated metering team to maintain a segregation of duties and a ensure four eyes verification is in place

4.2 ICP altitude

ICP altitude is viewable in CMMS' Mapviewer and verified by checking the Mapviewer GIS information before updating the registry.

ICP altitude accuracy

It is a distributor responsibility to populate the registry with correct altitude information to support compliance with **NZS5259:2015**. **NZS5259:2015 Amendment No1** contains the following points, which affect the way altitude information should be managed:

- the maximum permissible error is ±1.0% where the meter pressure is below 100kPa and ±0.5% where the meter pressure is greater than 100kPa, and
- the following note is also included "To minimise uncertainty due to altitude factor the aim should be to determine the altitude to within 10m where practicable."

I assessed the accuracy of the altitudes recorded on the registry on 3 April 2024 against Google Earth altitudes for a sample of ICPs. The Google Earth data is based on the "Shuttle Radar Topography Mission" (SRTM) results and a number of recent studies indicate an accuracy of ± 10m for altitude. Point 2 above recommends altitude figures are determined to within ± 10m where practicable. To allow for these margins, I have checked that the registry altitude is within ± 20m of the Google Earth altitude.

A sample of 20 ACTC or ACTV ICPs was selected from the registry list as of 3 April 2024 where the standard deviation of altitude minimum and maximum values by street was more than ten standard deviations.

This sample of ICPs was checked against 'google earth' data. The 'google earth' data is based on the "Shuttle Radar Topography Mission" (SRTM) results and a number of recent studies indicate an accuracy of ± 10m for altitude. An evaluation against this data is considered an appropriate test for "reasonableness." Altitude figures that are within approximately 90m of the actual altitude will ensure an accuracy of ± 1.0%.

No ICPs had a difference of more than ±15m or would cause an altitude factor difference of more than ±0.2%. All were within the thresholds set out in **NZS5259:2015**.

4.3 Gas gate

Gas gate is held in CMMS and verified on entry by checking the Mapviewer GIS information.

Gas gate accuracy

The process for determining gas gates had not changed significantly since the last audit.

In October 2019, the Gas Industry Company published a table of average ground temperatures by gas gate to ensure the consistent application of the temperature factor by retailers for both reconciliation and billing purposes. Where the gas gate is incorrectly assigned to an ICP the flow on affect is on the correct calculation of the temperature factor by retailers.

The accuracy of gas gates was reviewed by checking for streets where some of the ACTC or ACTV ICPs on a particular street had one gas gate and the remaining ICPs had a different gas gate. I also compared the town recorded in addresses for ACTC and ACTV ICPs. I did not identify any exceptions.

4.4 Load shedding category

The on-site review of processes included the process for deciding the load shedding category. Load shedding categories are determined by Nova as part of the ICP application process, and requests for changes to load shedding categories are provided by email from the relevant retailers. Nova's distribution team validates the requested categories against information that they hold, such as the details of the customers appliances and proposed load from the initial connection information, ANZSIC code , and metering type, to determine whether they appear valid. This is done at the same time as deciding the pricing category and the two should be aligned.

Nova's distribution team do not hold consumption information for ICPs, so do not validate the requested categories against expected or actual consumption.

Load shedding category accuracy

The load shedding category identifies the position of the ICP's consumer installation in the hierarchy for emergency curtailment of gas. Load shedding categories and codes are determined and published by the industry body from time to time and are consistent with the curtailment bands **under Schedule 3 of the Gas Governance (Critical Contingency Management) Regulations 2008**.

The categories are shown below.

Category Code	Consumption in Gigajoules (GJ) or Terajoules (TJ)	Load Shedding Category (ie Curtailment Band) Description
0	N/A	Any consumer installation, to the extent that gas is used for injection into gas storage
1	More than 15 TJ per day	Any consumer installation supplied directly from the transmission system and that has an alternative fuel capability
2	More than 15 TJ per day	Any consumer installation supplied directly from the transmission system and that does not have an alternative fuel capability
3	More than 10 TJ per annum and up to 15 TJ per day	Large industrial or commercial consumer installation
4	More than 250 GJ per annum and up to 10 TJ per annum	Medium-sized industrial or commercial consumer installation
5	More than 2 TJ per annum	Any consumer installation (whether or not in bands 0 to 4), to the extent that an essential services designation applies to the installation
6	250 GJ or less per annum	Small commercial consumer installation
7	Any	Any consumer installation (whether or not in any of curtailment bands 0 to 4), to the extent that a critical care designation applies to the consumer installation
DOM	Any	Domestic consumers

A review of the registry list as of 3 April 2024 was undertaken of load shedding categories against gas allocation group codes did identify 15 ICPs (**Appendix 1**) with an incorrect load shed category code:

- One ICP with a load shed category of 4 assigned were found to be a commercial consumer with an annual consumption exceeding 10TJ with a gas allocation code 1 assigned by the retailer.
- Five ICP with a load shed category of 3 assigned were found to be a commercial consumer with an annual consumption less than 10TJ with a gas allocation code 1 or 2 assigned by the retailer.
- Seven ICPs with a load shed category of 4 assigned but the gas allocation code assigned by the retailer was 6.
- Two ICPs with a load shed category of 6 assigned but the gas allocation code assigned by the retailer was 4.

I recommend Nova implements further monitoring of consumption and allocation groups to identify potential load shedding category discrepancies.

Recommendation	Audited party comment
Check load shedding categories for reasonableness when changes are requested, and also at least annually by comparing to retailers' gas allocation group assignments and also annualised consumption volumes.	**Response** Accepted **Comments:** Nova is to carry out a review of the load shedding categories in consolation with the retailers

A further review of the registry list as of 3 April 2024 was undertaken to ensure that all ICPs with a load shedding category code of 7 (Critical care designation) were also present on the most recent GIC list of active critical care designations (1 October 2024). Five ICPs[2] did not appear to be present in the active designations list at the time of the field audit.

Recommendation	Audited party comment
Develop a process to monitor the GIC active designations list and expiry dates for load shedding category 7 against the registry and work with the respective retailers to ensure that the registry information is current and up to date.	**Response:** Accepted **Comments:** This will be taken up with our metering administration team

I rechecked discrepancies identified during the previous audit and found all had been resolved, or the connection status had been updated to GPM (inactive permanent).

Load Shedding Categories		
Non-compliance	Description	
Report section: 4.4 Rule: 58.1 From: 1 January 2021 To: 3 April 2024	Audit history: Yes Controls: Needs Improvement Impact: Insignificant	Data analysis of the load shedding category against other registry fields identified 15 ICPs with incorrect categories. Five ICPs have a designation of 7 (Critical care designation) however these ICPs are not currently listed on the GIC website of active critical care designations. The impact has been categorised as insignificant as there has not been a Critical Contingency curtailment event in any Nova network area. Critical Contingencies are rare, but the potential impact of incorrect categories is major should an event occur.

Remedial action rating	Remedial timeframe	Remedial comment
In progress	31st Dec 2024	Review is to be completed by year end

[2] Appendix 3 - load shedding category code of 7 (Critical care designation) not on GIC list

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Historical issues with data that was updated in registry
Whether or not the participant admits or disputes that it is in breach.	Nova does not dispute the breach
Estimate of the impact of the breaches (where admitted).	Insignificant
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this
What steps have been taken to prevent recurrence?	Nil at this stage. This will be taken up with our metering administration team

4.5 Maximum hourly quantity

MHQ is not recorded in CMMS or included in the daily discrepancy report discussed in **section 4.9**. Where populated, the MHQ is calculated based on the meter capacity.

MHQ accuracy

The maximum hourly quantity is the maximum quantity of gas, in cubic metres, that the gas-consuming equipment at the consumer installation is capable of drawing per hour. The value is distinct from the capacity of the gas service pipe or metering equipment serving the consumer installation. This field is mandatory only where MHQ is used to determine the distributor's network charges, and it may be conveyed by means of a 'disclosure on application' code in accordance with **rule 50**.

Nova is a private pipeline owner and there is no requirement for pricing categories to be recorded for its ICPs. All ICPs have network price category DOA assigned, and MHQ is not used to determine network charges.

MHQ is recorded on the registry for seven active ICPs. I confirmed that the MHQ was correctly entered for all seven ICPs.

4.6 Physical address

Physical address information is recorded in CMMS and the registry.

When creating ICPs, Nova validates addresses by checking the application details against their GIS system, which contains LINZ data. If there are any discrepancies, they are queried with the applicant.

Physical address accuracy

The physical address assigned by the distributor to the ICP's consumer installation, so that the ICP can be unambiguously identified with the consumer installation, in the registry.

I checked the registry list as of 3 April 2024 for incomplete and duplicated addresses.

- Five ACTC ICPs (**Appendix 2**) had addresses which were not readily locatable and did not include a physical address unit, physical address number or property name. All were created prior to the audit period.
- 12 ACTC ICPs (**Appendix 2**) had duplicate addresses and were created prior to the audit period.

I confirmed that all ICPs created during the audit period had unique and readily locatable addresses.

<table>
<tr><td colspan="4">Physical address accuracy</td></tr>
<tr><td>Non-compliance</td><td colspan="3">Description</td></tr>
<tr><td>Report section: 4.6
Rule: 58.1

From: 1 January 2021
To: 3 April 2024</td><td>Audit history: Yes
Controls: Needs improvement
Impact: Insignificant</td><td colspan="2">Five ICPs had addresses which were not readily locatable and were corrected during the audit.
12 ICPs had duplicate addresses recorded. Ten were updated to be unique during the audit, and the other 14 ICPs genuinely have more than one meter in the same location and are distinguished by their meter number.</td></tr>
<tr><td colspan="2">Remedial action rating</td><td>Remedial timeframe</td><td>Remedial comment</td></tr>
<tr><td colspan="2">Completed</td><td>Completed</td><td>Nil</td></tr>
<tr><td colspan="4">Audited party comment</td></tr>
<tr><td colspan="2">The circumstances of the matters outlined in the breach notice.</td><td colspan="2">Historical issues with data that was updated in registry</td></tr>
<tr><td colspan="2">Whether or not the participant admits or disputes that it is in breach.</td><td colspan="2">Nova does not dispute the breach</td></tr>
<tr><td colspan="2">Estimate of the impact of the breaches (where admitted).</td><td colspan="2">Minor</td></tr>
<tr><td colspan="2">What steps or processes were in place to prevent the breaches?</td><td colspan="2">Due to changes in personal it is unknown what controls were in place for this</td></tr>
<tr><td colspan="2">What steps have been taken to prevent recurrence?</td><td colspan="2">Nil at this stage. This will be taken up with our metering administration team</td></tr>
</table>

4.7 Decommissioned status (Rules 59.11 and 59.12)

Decommissioned status (DECR) may only be assigned where:

- the ICP is removed from future switching and reconciliation processes, and
- any associated consumer installation is no longer connected to the distribution system.

The decommissioned ICP status may only be changed to inactive-permanent (INACP).

Nova's policy is to only update the ICP status from INACP to DECR if the premises is demolished, and the ICP will not be used again. If an ICP moves from Nova's bypass network to the local open access network, Nova will leave the ICP at INACP status so that the ICP can be moved to active status if supply through the Nova network is resumed.

Review of the event detail report for 1 January 2021 to 31 January 2024 found no ICPs were updated to DECR status during the period. One ICP is currently at DECR status (updated in 2015), and I confirmed that the status was correctly applied.

22 ICPs (**Appendix 3**) are at INACP-GPM status which have not been decommissioned:

- 11 ICPs are for check meter installations and a distribution ICP was incorrectly assigned. These ICPs need to be decommissioned as they are not part of the distribution network.
- Six ICPs no longer require gas as all gas appliances have been removed. Nova do not have records to verify if the service line has been isolated at the main in preparation or decommissioning these ICPs.
- Five ICPs were either disconnected on request of the property owner of are supplied by an alternative distribution network.

Decommissioned status accuracy			
Non-compliance	Description		
Report section: 4.7 Rule: 59.11 From: 1 January 2021 To: 3 April 2024	Audit history: Yes Controls: Needs improvement Impact: Insignificant	11 ICPs with INACP status were found to be for check metering installations as there are not part of the distribution network and the status should be DECR.	
Remedial action rating	Remedial timeframe	Remedial comment	
In progress	31st March 2025		

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Historical issues with data that was updated in registry
Whether or not the participant admits or disputes that it is in breach.	Nova does not dispute the breach
Estimate of the impact of the breaches (where admitted).	Insignificant
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this
What steps have been taken to prevent recurrence?	Nil at this stage. This will be taken up with our metering administration team

4.8 Connection statuses (Rule 60)

Connection status accuracy

The distributor must ensure the correct status change date is recorded in the registry. The registry list as of 3 April 2024 was reviewed and no exceptions were identified:

- 22 ICPs were at INACP-GPM status, and have not been decommissioned:
  - 11 ICPs are for check meter installations and a distribution ICP was incorrectly assigned,
  - Six ICPs no longer require gas as all gas appliances have been removed. Nova do not have records to verify if the service line has been isolated at the main in preparation or decommissioning these ICPs,
  - Five ICPs were either disconnected on request of the property owner of are supplied by an alternative distribution network. These ICPs have not been decommissioned because supply may return to the Nova network.
- no ICPs were at NEW or READY status, and
- one ICP had DECR status recorded and was decommissioned in 2015.

Recommendation	Audited party comment
Follow up INACP ICPs where all gas appliances have been removed to confirm if the service lines have been isolated at the mains and the status can be updated to DECR.	**Response:** Accepted **Comments:** A physical check of the sites will be completed, and the registry updated

Review of the event detail report for 1 January 2021 to 31 January 2024 found all status updates related to updates to NEW and READY for new connections, which are discussed in **section 3**. No evidence of incorrect statuses or status dates, or late updates were found.

4.9 Registry validation and correction (Rules 61.1 and 62)

If the distributor becomes aware that registry information is incorrect or requires updating, the responsible distributor must update or correct the registry as soon as practicable.
The distributor registry report should be reviewed, and any corrections required should be entered on the registry by 4pm on the 15th business day of the month.
During the field audit it was found that due to personnel changes during the audit period at Nova that there is no current process to compare data from CMMS to the registry to enable discrepancies to be identified.

Previous reporting systems to produce exception list of data mismatches between the registry and the CMMS system are no longer operational and the personnel now responsible for these tasks are not familiar with the supporting processes to investigate and correct network attributes on the gas registry.

Recommendation	**Audited party comment**
Implement a process to monitor the accuracy and investigate any exceptions of distributor information between the registry and CMMS and any other systems and ensure the registry is updated as soon as an exception is confirmed.	**Response:** Accepted **Comments:** Process to be developed using new CMMS.

Registry validation and correction			
Non-compliance	Description		
Report section: 4.9 Rule: 62.2 From: 1 January 2021 To: 3 April 2024	Audit history: Yes Controls: Ineffective Impact: Minor	The monthly registry distributor report is not reviewed, and discrepancies are not resolved by 1600 hours on the 15th business day of each month.	
Remedial action rating	Remedial timeframe	Remedial comment	
In progress	31st March 2025	Method of discrepancy reporting to be developed in Q1 2025	

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Recent staff turnover within Nova have meant that some processes have not been fully understood or completed
Whether or not the participant admits or disputes that it is in breach.	Nova does not dispute the breach
Estimate of the impact of the breaches (where admitted).	Minor
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this
What steps have been taken to prevent recurrence?	Nil at this stage. This will be taken up with our metering administration team and part of the CMMS changes

5. Creation and decommissioning of a gas gate (Rule 45.1 and 45.2)

If a distributor intends to create or decommission a gas gate, the distributor must, at least 20 business days before the creation or decommissioning takes effect, give notice of that gas gate creation or decommissioning. The notice must contain the gas gate codes, the creation or decommissioning date, the parent gas gate if applicable and the ICP identifiers affected.

No gas gates were created or decommissioned during the audit period, and Nova are aware of the notification requirements.

6. Management of network price category codes (Rule 46)

Each distributor must determine, publish, and maintain a schedule of its network price categories and the respective network price category codes and, except where the distributor requires disclosure on application in accordance with **rule 50**, the charges associated with each of those codes.

Nova is a private pipeline owner and there is no requirement for pricing categories to be recorded for its ICPs. All ICPs have network price category DOA assigned.

7. Management of loss factor codes

7.1 Distributors to determine loss factor codes (Rule 47.1 and 47.2)

Each distributor must publish and maintain a schedule of all the loss factors (if any) which apply to gas gates on the distributor's distribution system; and maintain the respective codes for those loss factors.

All ICPs which are not decommissioned have loss factor code NA (not applicable) applied. The loss factor codes were examined on the Gas Registry. No loss factor codes have been changed, added, or removed since NA was last updated in 2013.

7.2 The addition or deletion of loss factor codes (Rule 48)

If a distributor intends to add or delete any loss factor codes, the distributor must give at least 20 business days' notice to the registry operator, the allocation agent, and all retailers that will be affected by the change.

Nova is aware of the notification requirements. The loss factor codes were examined on the Gas Registry. No loss factor codes have been changed, added, or removed since NA was last updated in 2013.

8. Disclosure on application (Rule 50)

Disclosure on application may only be used where the participant does not have a reasonably practicable alternative method of protecting its commercial interest in that information, and to the extent necessary to reasonably protect that interest.

Requests for disclosure on application must be responded to within one business day, to confirm whether the information will be provided. The information must be provided within a further business day.

Nova's policy is to provide information requested on application as soon as possible.

Nova did not receive any Disclosure on application requests during the audit period.

9. Accuracy of meter information

9.1 TOU downloads (GDRR r26.5)

TOU meter downloads provided to Retailers should be complete, accurate and converted to energy in accordance with **NZS5259:2015** (if applicable).

The registry list as of 3 April 2024 was reviewed and identified 40 active ICPs have Nova TOU meters installed. Nova have advised all TOU metered ICPs now have telemetry installed. The registry list as of 3 April 2024 only records Nova as the telemetry owner for 32 ICPs. Registry data not complete and accurate is recorded as non-conformance in **section 11**.

Nova is also the retailer for all 39 TOU ICPs with one TOU ICP traded by another retailer. Nova's metering team completes a daily download, using a data collection platform operated by Landis & Gyr, for each ICP. Nova provides both a daily unvalidated file to the retailer to enable them to complete their D+1 obligations and also a monthly download for each ICP on the first business day of each month. Nova does not convert the raw data to energy, and I confirmed that the data is not manipulated before being sent to the retailer. The TOU data is validated using Clariti's site dashboard, including unexpected zero consumption, peak usage, temperatures, pressures, and identifying gaps in the data. Nova also completes an event log / meter health review at the end of each month.

The current peak usage validation does not include a check of recorded volume compared to the meter design flow rate Q_{min} and Q_{max} values. A recommendation is made to include a comparison of measured volumes to the meter design flow rate Q_{min} and Q_{max} values to ensure the meters are operating within their design parameters and therefore achieving the accuracy requirement of **NZS5259:2015.**

Recommendation	Audited party comment
Implement a validation check of TOU meters design minimum (Q_{min}) and maximum (Q_{max}) flow rate to the measured hourly flow rate to identify meters that may be close to or are operating the meter design flow rates.	**Response:** Accepted **Comments:** Investigations are underway for alarms to be installed in correctors for a 90% of Qmax flow rate.

Nova does not have a process to monitor for time synchronisation changes greater than 300 seconds A recommendation is made to include this check.

Recommendation	Audited party comment
Complete the review of the process to monitor and notification to retailers of time synchronisation changes greater than 300 seconds	**Response:** Accepted **Comments:** Investigations are underway to find time sync issues with EK280 and how time syncing is managed

Compliance is confirmed.

9.2 Meter accuracy (GDRR r26.5 and 27)

Processes must be in place to ensure meter accuracy, and compliance with **NZS5259:2015**.

Nova's processes for both new and existing GMS were reviewed, and a sample of meter paperwork, fault, and testing information was reviewed to confirm whether processes in the standard were being followed.

Faults

Faults identified by retailers are reported to Nova via email, phone or identified by Nova's technicians as part of the two yearly over 25m^3/h non domestic meter inspection and maintenance cycle. Where a fault is identified Nova dispatches a field services request to the relevant contractor to check the meter.

Nova uses a job tracking system to manage field services requests. Team members monitor the jobs which they have dispatched and are responsible for, to ensure that they are completed. A BI reporting dashboard is used to monitor field services requests by type.

Nova reviews the job completion paperwork once received and advises the retailer of the outcome if the fault was reported by them, or a meter fault is found.

Nova confirmed that no meter accuracy faults were identified during the audit period. I walked through the faults process and viewed BI reporting and field services jobs for two high gas usage investigations to confirm that the process is operating as expected.

Meter selection process

Paragraph 3.7.3 of NZS5259:2015 requires that Procedures for selection, installation and maintenance of GMSs shall be documented.

Meters are selected as part of the application approval process based on requirements for the gas installation provided by the customer's gasfitter.

Nova has its own GMS specification which provides guidance on meter fabrication and construction.

Two new connections were completed during the audit period and the GMS specification process was followed.

During the audit period all previous Nova metering personnel have moved on and the new members of the metering team have not yet been required to undertake a gas new connection and meter selection using the documented GMS selection specification. The Nova metering team have provided a copy of the GMS specification confirming their awareness that there is a specification and process to follow.

Maintenance and inspection processes

Nova intends to comply with the maintenance and inspection processes and timeframes set out in **NZS5259:2015**. The standard is readily available to the metering team and is clearly referenced in the internal Nova 'Meter Exchange Regulator Diagnostic Maintenance' procedure document that was last revised in 2019.

During the audit period, maintenance cycles were managed in the Maintenance Schedule Processing module in Ci Anywhere, a Technology One add on which interfaces with CMMS. Currently all non-domestic meters are automatically scheduled for two yearly a maintenance inspection that covers a flowing meter pressure check and a general GMS condition inspection.

The maintenance program was paused with the departure of the last remaining member of the previous metering team in May 2024. Nova gas metering functions now sit with the Optimisation

Manager who is reviewing the maintenance, inspection and testing program to ensure it is compliant with **NZS5259:2015**. Nova plan to restart the maintenance program in the beginning of 2025.

Nova is also planning to replace the existing technology One CMMS system with a CMMS supported by DEX which is also used by Nova's Generation function which will better support the meter maintenance processes.

Testing process

As explained above, Nova schedules testing as part of the maintenance and inspection process which was paused from May 2024 to complete an internal review of the processes and is expected to resume at the beginning of 2025. In addition to the maintenance, inspection and testing process:

- acceptance testing is completed by the manufacturer before a GMS enters service, and by Nova when an event that may affect accuracy has occurred, and for meters in service at the testing intervals set out in **NZS5259:2015**, and
- as found testing applies for meters and TOU devices removed from service where the meter is intended to be re-used, or a request for testing has been received from the retailer; Nova's meters below 10m^3/h are usually scrapped on removal and no requests for testing on meter removal have been received from retailers - removed meters are held for three months before being scrapped in case a request for testing is received after meter removal.

I reviewed Nova's meter asset register information held in CMMS used to prepare the maintenance and inspection schedules to determine how effective is the selection criteria and found:

Diaphragm Meters

Description	Count of GMS	% of population
Missing manufacture year	1496	69%
Missing test date	1585	74%
Missing install date	1504	70%
Grand Total	**2153**	

Rotary Meters

Description	Count of GMS	% of population
Missing manufacture year	20	14%
Missing test date	15	10%
Missing install date	60	41%
Grand Total	**146**	

The volume of missing meter information means the previous compliance period test scheduling process used to select meters for replacement and testing were ineffective as the reporting used to identify meters by meter type lacked a suitably complete dataset to enable an accurate schedule to be produced.

Recommendation	Audited party comment
Work with the meter suppliers and retailers for the meters installed but without out meter manufacturer year or install date to populate the missing information within the meter asset register to enable effective monitoring of meter interval test periods for each meter.	**Response:** Accepted **Comments:** A full review of the metering stock is underway, and one completed a remediation plan is to be implemented.

The current meter asset register does not currently have the ability to record whether a diaphragm meter over 25m^3/h has been installed a second time (ongoing compliance period). The testing interval period for diaphragm meters after the initial compliance period of 18 years, reduces to 10 years when reinstalled.

Recommendation	Audited party comment
Develop functionality within the meter asset register to identify diaphragm meters over 25m^3/hr that have been reused and the ongoing compliance period is 10 years.	**Response:** Accepted **Comments:** Nova intend to include this into the metering review using manufacture date and any subsequent testing done by local metering labs.

Statistical sample testing is not currently used by Nova meters are replaced prior to the end of the respective meter type testing interval period.

Documentation

NZS5259:2015 requires documentation be kept demonstrating conformance with the requirements of the standard. The documentation requirements can be summarised as follows:

NZS5259:2015 section 2 sets out performance requirements.

- Records shall be kept of the suitability of the GMS components for the life of the asset (**NZS5259:2015 2.8.2**)
- Documentation shall be kept of the acceptance testing, installation, operating conditions, and maintenance of the GMS components for the duration of its service (**NZS5259:2015 2.8.3**)

NZS5259:2015 section 3 provides a means of compliance. Alternative methods for establishing compliance with the **NZS5259:2015 section 2** requirements may be used provided they are tested and documented.

- Records shall be kept monitoring the performance and maintenance of each GMS component, for at least the life of each component and shall include the results of all acceptance and as-found tests and the date and details of all maintenance. (**NZS5259:2015 3.7.1**)
- Records shall be kept for each complete GMS detailing all inspections, maintenance and changes to the components and shall include the identity, location and date of installation of each installed component, maintenance test results and the scheduled dates for the next maintenance, test or replacement. (**NZS5259:2015 3.7.2**)

A review of documentation was undertaken for ICPs covering recent meter maintenance programme activity and copies of 'as found' test results to establish that Nova as meter owner was compliant with the requirements of **NZS5259:2015** with respect to its GMS operation, maintenance, testing and accuracy and found (**Appendix 4**):

- for a sample of 20 ICPs with diaphragm meters >25m^3/hr, Nova was unable to provide documentation of the most recent inspection / pressure check for 16 ICPs.

- for a sample of 20 ICPs with diaphragm meters <25m^3/hr, Nova was unable to provide installation paperwork for nine ICPs.
- For a sample of 43 ICPs with rotary meters, Nova was unable to provide documentation of the most recent inspection / pressure check for 32 ICPs.
- For a sample of six ICPs with correctors, Nova was unable to provide installation paperwork for five ICPs.
- Of the records that were provided, some paperwork was incomplete with:
    - as found meter pressures not recorded prior to meter exchanges.
    - Where photos were noted as being taken, no photos were provided as part of the completed paperwork to Nova from the service provider.

Not all documentation was loaded into the CMMS system and some documents were recovered from emails from the service provider where some information was within the email body and the remainder was within the attached work instruction template.

Recommendation	Audited party comment
Ensure all maintenance records including service provider paperwork including photos are archived within the CMS system so that they can be referred to during the life of the asset.	**Response:** Accepted **Comments:** Changes in the type of CMMS and its administration will ensure completeness of records going forward
Work with service providers to ensure all maintenance paperwork has all required fields completed by the onsite technician prior to closing the maintenance activity	**Response:** Accepted **Comments:** Review of how service providers are given WO and what data is required back is part of changes to CMMS

The meters with no installation date recorded in CMMS were likely to have been acquired from the Auckland Gas Company as part of the acquisition of its retail business by Nova. These meters are expected to be replaced before the compliance periods end for the respective meter types. I checked a sample of:

- 20 ICPs with diaphragm meters <25m^3/hr and all were found to be still within their compliance period.
- 20 ICPs with diaphragm meters >25m^3/hr and eight were found to outside their compliance periods.
- 43 ICPs with rotary meters and seven were found to be outside their compliance period.
- five ICPs with correctors and one was found to be outside its compliance period.

Meter accuracy		
Non-compliance	Description	
Report section: 9.2 Rule: 27 From: 1 January 2021 To: 3 April 2024	Audit history: Yes Controls: Ineffective Impact: Minor	Eight GMS with diaphragm meters >25m^3/hr were found to outside their compliance periods. Seven GMS with rotary meters were found to be outside their compliance period. One corrector was found to be outside their compliance period. Record keeping relating to the maintenance and operation of GMS is not compliant with **NZS5259:2015.**

Remedial action rating	Remedial timeframe	Remedial comment
In progress	31st Dec 2025	Nova intends to include this into the metering review using manufacture date and any subsequent testing done by local metering labs.
Audited party comment		
The circumstances of the matters outlined in the breach notice.	Recent staff turnover within Nova have meant that some processes have not been fully understood or completed	
Whether or not the participant admits or disputes that it is in breach.	Nova do not dispute the breach	
Estimate of the impact of the breaches (where admitted).	Minor	
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this	
What steps have been taken to prevent recurrence?	A full review of the metering stock is underway and one completed a remediation plan is to implemented	

9.3 TOU upgrades (GDRR r29.1.1)

If a consumer installation is, or is expected to, consume more than 10 TJ per annum TOU metering should be installed. Under the Gas (Downstream Reconciliation) Rules 29.1 the Retailer must ensure that a TOU meter is installed as soon as practicable, and no more than three months after becoming aware that expected or actual consumption is over 10 TJ.

As part of Nova's audit, I examined how quickly TOU metering is installed after receiving a request from a Retailer. Upgrades from non TOU to TOU occur rarely, and no upgrades occurred during the audit period.

The 3-month timeframe specified in the rules is difficult to comply with. Nova normally has correctors in stock to complete upgrades and maintenance. In some cases, a TOU upgrade will be completed in parallel with a meter upgrade which could result in longer lead times.

10. New connections (GSAR r56)

Meter Owner information must be provided on the Registry within two business days of confirmation that a meter has been installed. If no responsible Meter Owner is populated, the Meter Owner who has installed the meter may populate the Registry to become the responsible Meter Owner.

Since September 15th, 2015, Meter Owners have been able to populate metering details without Retailer nomination of the responsible Meter Owner. However, if the Retailer has populated a different responsible Meter Owner, Nova will be unable to update any metering details until the responsible Meter Owner is changed to Nova.

Meters are selected as part of the application approval process based on requirements for the gas installation provided by the customer's gasfitter. Installation work is scheduled and completed by Nova's technicians and contractors, and work requests and completion paperwork are sent by email. The installation data is manually updated in CMMS and on the registry as soon as the paperwork is received.

According to the registry list, two new ICPs were created between 1 November 2020 and 31 January 2024. Both were connected to Nova's bypass networks and had metering installed.

I reviewed the metering events on the event detail report for the new ICPs and found that they were on time and accurate.

11. Registry information management (GDRR r26.5 and GSAR r58)

The Meter Owner must use its reasonable endeavours to maintain current and accurate information in the Registry in relation to the ICPs and the ICP parameters for which it has responsibility.

New connections and installation changes are completed by Nova's contractors and technicians. Work requests and job completion details are transferred via email, and CMMS and the registry are updated on receipt of job completion details. The registry is usually updated first to ensure that the timeframes set out in the rules are met.

Nova's meter owner information is updated manually using the registry web interface. Registry attributes and event dates are determined from paperwork returned from the field. As part of the update process the user confirms that the update is successful; acknowledgement files are not separately reviewed.
During the field audit it was found that due to personnel changes during the audit period at Nova that there is no current process to compare data from CMMS to the registry to enable discrepancies to be identified.

Previous reporting systems to produce exception list of data mismatches between the registry and the CMMS system are no longer operational and the personnel now responsible for these tasks are not familiar with the supporting processes to investigate and correct network attributes on the gas registry. Notification files are also not reviewed, reliance was placed on the previous discrepancy reporting to identify updates made by other parties which affect Nova, however with this reporting now no longer being performed there is no process to identify and resolve exceptions.

Nova is looking to replace its current CMMS for distributor and meter owner functions from Technology One to algin with its generation business CMMS (MEX). This change will enable all meter owner registry fields to be appropriately mapped and exception reporting to be reestablished.

Recommendation	Audited party comment
Implement a process to monitor the accuracy and investigate any exceptions of meter owner information between the registry and CMMS and any other systems and ensure the registry is updated as soon as an exception is confirmed.	**Response:** Accepted **Comments:** As detailed above the discrepancy reporting will capture this when re implemented

Each of the Meter Owner registry attributes are discussed individually in **sections 11.1** to **11.14** below.

Accuracy of Registry information

A review of meter events against ICP connection status codes was undertaken and identified 20 ICPs have a ICP connection status code reflecting no meter is present however a meter is still recorded on the registry:

- Nova have confirmed that six ICPs have a meter incorrectly recorded as being still installed in CMMS, and
- Nova is undertaking site visits to verify if the meter has been removed for six ICPs.

Timeliness of Registry information

I evaluated the timeliness and accuracy of event updates between 1 January 2021 to 31 January 2024 not relating to new connections or status in this section. The rules do not specify a clear timeframe for update of metering information not related to new connections.

There were 218 meter events not relating to new ICPs. 155 updates were made within five business days of the event date, 47 within 30 business days, 16 greater than 30 business days. I reviewed a sample of 20 updates made more than nine business days after the event to determine the reasons for the backdated updates:

- three were backdated to metering details,
- 17 were meter exchanges.

It is preferable to have a late update and correct information recorded on the Registry, to having no late updates with incorrect information recorded on the Registry.

Overall, the review of the update of registry information for existing connections has identified instances where updates to existing connection information have taken a considerable amount of time. However, because the rules do not specify a timeframe for the update of this information, I have not alleged any breaches.

Registry information accuracy			
Non-compliance	Description		
Report section: 11 Rule: 58.1 From: 1 January 2021 To: 3 April 2024	Audit history: Yes Controls: Needs improvement Impact: Insignificant	Six ICPs have a meter incorrectly recorded as being still installed on the registry.	
Remedial action rating	Remedial timeframe		Remedial comment
In progress	31st Dec 2024		Sites are to be checked before removing from the register

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Historical issues with data that was updated in registry
Whether or not the participant admits or disputes that it is in breach.	Nova do not dispute the breach
Estimate of the impact of the breaches (where admitted).	Insignificant
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this.
What steps have been taken to prevent recurrence?	Nova is to return registry update responsibilities to a specialist metering administration team to ensure a "four eyes" review of the information being updated into the registry

11.1 Meter Identifier

Meter identifier accuracy

I reviewed matches between Nova's CMMS data and the Registry for 3 April 2024 and found 145 meter serial number differences or ICP-meter serial number differences. 28 related to timing for meter installations, removals or exchanges and the registry was correctly updated before CMMS.

Assets for meters 0000071521NA7E5 and 1000513595PG89D were entered into CMMS during the audit. A site visit is to be completed for ICP 0002341791QT940 to confirm metering details but has been delayed by COVID-19 restrictions. This is recorded as non-conformance in **section 5**.

Review of the registry list as of 3 April 2024 found:

- 15 ICPs had registry meter events indicating the meter had been removed however CMMS recorded a meter still being installed,
- 14 ICPs had registry ICP Connection Status Code event indicating the meter had been removed however the registry recorded a meter still being installed but CMMS reflected that the meter had been removed.
- 130 meters had a mismatch between the registry meter identifier and the CMMS meter number. In all instances the registry meter identifier was correct.

11.2 Meter Location Code

CMMS contains a free text field for meter location against the meter asset, and meter locations are recorded on installation paperwork.

Accuracy of meter location codes

Review of the registry list as of 3 April 2024 found 69 ICPs with a metered status had meter locations recorded on the registry, and 2,055 ICPs have a meter location of "0" recorded.

I reviewed 169 ICPs which were installed on Nova's private networks which did not have location information recorded and found the locations were available within Nova's retail system.

Meter locations have not consistently been recorded in Nova's CMMS and/or the registry due to:

- meters acquired from Auckland Gas Company did not have location information available, and
- meters installed before Nova began using the gas registry did not have locations recorded when the data was initially migrated to the registry, and the locations have not been updated since.

Recommendation	Audited party comment
Populate the meter location code as part of the replacement of the CMMS to the MEX system and working with the respective retailers for each ICPs without a meter location code on the registry.	**Response:** Accepted **Comments:** The update of the location of the meters will take some time to get the information from the retailers for updating

Non-conformance is recorded in **section 11.15.**

11.3 Meter Pressure

Accuracy of meter pressures

A review of Nova's CMMS data and the Registry for 3 April 2024 was performed and found 25 mismatches between these two systems. For 20 ICPs the CMMS meter pressure was recorded as zero. Nova reviewed their meter installation paperwork and confirmed for all 25 that the information in CMMS was incorrect and the registry was correct.

No meter pressure discrepancies were identified through review of metering paperwork.

11.4 Register Multiplier

Register multiplier is held in CMMS. Register multiplier is recorded on the daily discrepancy report discussed in **section 5.15**, and exceptions are reported.

Accuracy of meter multipliers

I reviewed matches between Nova's CMMS data and the Registry for 3 April 2024 and found one multiplier exception. The registry information was correct, and CMMS had a multiplier of zero incorrectly recorded.

No multiplier discrepancies were identified through review of metering paperwork.

11.5 Meter Pressure Operating at Network Pressure Flag

Meter pressure operating at network pressure is not recorded in CMMS.

The meter pressure operating at network pressure value can be derived from the network pressure, meter pressure and meter type, which are recorded in CMMS.

Accuracy of meter pressure operating at network pressure

Review of the registry list as of 3 April 2024 found no ICPs with the same network and meter pressure. All TOU ICPs has the meter pressure operating at network pressure flag correctly set to yes based on their meter configuration.

11.6 Register Reading Digits

Register reading digits is held in CMMS. Register reading digits is recorded on the daily discrepancy report discussed in **section 5.15**, and exceptions are reported.

Accuracy of register reading digits

I checked the registry list information as of 3 April 2024 for reasonableness.

- Two ICPs (0002378299QT3DD - meter NE15052, 0002381525QT44F - NE15128) were correctly recorded with five digits on the registry however CMMS incorrectly recorded as four digits. CMMS was corrected during the audit. Non-conformance is recorded in **section 11.15.**

No further register digit discrepancies were identified through review of metering paperwork.

11.7 Standard Meter

2,122 Nova meters are standard meters.

Standard meter accuracy

A review of the registry list as of 3 April 2024 found all non TOU metered ICPs had standard meter set to yes. The review also found that 40 TOU metered ICPs have both the standard meter and TOU meter flags set to yes.

Non-conformance is recorded in **section 11.15.**

11.8 Prepay meter

Nova Energy does not supply any ICPs with prepay meters.

Prepay meter accuracy

Review of the registry list as of 3 April 2024 found all metered ICPs had prepay meter set to No.

11.9 Advanced Meter & Advanced Meter Owner

Nova previously supplied four ICPs with advanced meters as part of a metering trial, which is now complete, and the readings are no longer being remotely retrieved.

Advanced meter and advanced meter owner accuracy

Review of the registry list as of 3 April 2024 found one metered ICP (0000071521NA7E5) where the advanced meter flag is incorrectly set to yes.

Non-conformance is recorded in **section 11.15.**

11.10 TOU Meter

TOU meter accuracy

A review of the registry list as of 3 April 2024 found all 43 TOU metered ICPs had the TOU meter flag set to yes. There were no discrepancies between the allocation group field populated by the retailer and TOU meter flag, apart from 0001406092QTBB7 which had TOU flag and AG4, and I confirmed TOU metering is installed.

11.11 Logger Owner

Nova confirmed that all their TOU meters have a data logger and corrector combined in a single device and are expected to be recorded with Nova as the logger owner.

Logger owner accuracy

Review of the registry list as of 3 April 2024 found five of the 43 TOU metered ICPs did not have the logger owner code set to NOVA.

Non-conformance is recorded in **section 11.15.**

11.12 Corrector Owner

Nova confirmed that all their TOU meters have a data logger and corrector combined in a single device and are expected to be recorded with Nova as the corrector owner.

Corrector owner accuracy

Review of the registry list as of 3 April 2024 found all 43 TOU metered ICPs had the corrector owner code set to NOVA. All non-TOU ICPs had the corrector owner set to NONE. Compliance is confirmed.

11.13 Telemetry Owner

42 of Nova's 43 TOU ICPs have telemetry.

Telemetry owner accuracy

Review of the registry list as of 3 April 2024 found ten of the 42 TOU metered ICPs with telemetry did not have the Telemetry owner code set to NOVA.

Non-conformance is recorded in **section 11.15.**

11.14 Metering Price Category

Metering price category is set based upon the meter type installed.

Metering price category accuracy

A review of the network and meter pricing categories on the registry list as of 3 April 2024 and found 25 ICPs with a misalignment between metering price category code and the meter type. Nova is investigating these exceptions.

No meter price category discrepancies were identified through review of metering paperwork.

Non-conformance is recorded in **section 11.15.**

11.15 Registry validation and correction (GSAR r61.1, 61.2 and 62)

If the Meter Owner becomes aware that Registry information is incorrect or requires updating, the responsible Meter Owner must update or correct the Registry as soon as practicable.

The Meter Owner Registry report should be reviewed, and any corrections required should be entered on the Registry by 4pm on the 15th business day of the month.

As recorded in **section 11** the previous reporting systems to produce exception list of data mismatches between the registry and the CMMS system are no longer operational and the personnel now responsible for these tasks are not familiar with the supporting processes to investigate and correct metering attributes on the gas registry. Notification files are also not reviewed, reliance was placed on the previous discrepancy reporting to identify updates made by other parties which affect Nova, however with this reporting now no longer being performed there is no process to identify and resolve exceptions.

<table>
<tr><th colspan="4">Registry validation and correction</th></tr>
<tr><th>Non-compliance</th><th colspan="3">Description</th></tr>
<tr><td>Report section: 11.1
Rule: 62.2

From: 1 January 2021
To: 3 April 2024</td><td>Audit history: No
Controls: Ineffective
Impact: Insignificant</td><td colspan="2">The monthly registry meter owner report is not reviewed, and discrepancies are not resolved by 1600 hours on the 15th business day of each month.
2,055 ICPs have a meter location of “0” recorded on the registry.
Two ICPs (0002378299QT3DD - meter NE15052, 0002381525QT44F - NE15128) were correctly recorded with five digits on the registry however CMMS incorrectly recorded as four digits.
25 ICPs with meter price category code exceptions
40 TOU metered ICPs have both the standard meter and TOU meter flags set to yes.
One metered ICP (0000071521NA7E5) where the advanced meter flag is incorrectly set to yes.
Five of the 43 TOU metered ICPs did not have the logger owner code set to NOVA.
Ten of the 42 TOU metered ICPs with telemetry did not have the Telemetry owner code set to NOVA</td></tr>
<tr><th>Remedial action rating</th><th>Remedial timeframe</th><th colspan="2">Remedial comment</th></tr>
<tr><td>In progress</td><td>31st Dec 2025</td><td colspan="2">The update of the location of the meters will take some time to get the information from the retailers for updating</td></tr>
</table>

Audited party comment	
The circumstances of the matters outlined in the breach notice.	Historical issues with data that was initially put into the registry
Whether or not the participant admits or disputes that it is in breach.	Nova do not dispute the breach
Estimate of the impact of the breaches (where admitted).	Insignificant
What steps or processes were in place to prevent the breaches?	Due to changes in personal it is unknown what controls were in place for this.
What steps have been taken to prevent recurrence?	Nova is to return registry update responsibilities to a specialist metering administration team to ensure a “four eyes” review of the information being updated into the registry

12. Disclosure on application (GSAR r50)

Disclosure on application may only be used where the participant does not have a reasonably practicable alternative method of protecting its commercial interest in that information, and to the extent necessary to reasonably protect that interest.

No instances of information being withheld under rule 50 have occurred.

13. Recommendations

As a result of this performance audit, I recommend Nova:

- Implement a step in the ICP creation process to first search the registry for the new connection address to ensure it is unique and that an ICP has not already been created for the same property.
- Implement a process to proactively monitor and escalate to the respective retailer the initial new connection addresses populated in the registry so that address attributes such a lot numbers can be updated as soon as possible once an ICP is livened.
- Complete a major change audit prior to the replacement of the CMMS system.
- Check load shedding categories for reasonableness when changes are requested, and also at least annually by comparing to retailers' gas allocation group assignments and also annualised consumption volumes.
- Develop a process to monitor the GIC active designations list and expiry dates for load shedding category 7 against the registry and work with the respective retailers to ensure that the registry information is current and up to date.
- Follow up INACP ICPs where all gas appliances have been removed to confirm if the service lines have been isolated at the mains and the status can be updated to DECR.
- Implement a process to monitor the accuracy and investigate any exceptions of distributor information between the registry and CMMS and any other systems and ensure the registry is updated as soon as an exception is confirmed**.**
- Implement a validation check of TOU meters design minimum (Qmin) and maximum (Qmax) flow rate to the measured hourly flow rate to identify meters that may be close to or are operating the meter design flow rates.
- Complete the review of the process to monitor and notification to retailers of time synchronisation changes greater than 300 seconds.
- Work with the meter suppliers and retailers for the meters installed but without out meter manufacturer year or install date to populate the missing information within the meter asset register to enable effective monitoring of meter interval test periods for each meter.
- Develop functionality within the meter asset register to identify diaphragm meters over 25m3/hr that have been reused and the ongoing compliance period is 10 years.
- Ensure all maintenance records including service provider paperwork including photos are archived within the CMS system so that they can be referred to during the life of the asset.
- Work with service providers to ensure all maintenance paperwork has all required fields completed by the onsite technician prior to closing the maintenance activity.
- Implement a process to monitor the accuracy and investigate any exceptions of meter owner information between the registry and CMMS and any other systems and ensure the registry is updated as soon as an exception is confirmed.

- Populate the meter location code as part of the replacement of the CMMS to the MEX system and working with the respective retailers for each ICPs without a meter location code on the registry.

Appendix 1 – Load shedding category discrepancies

Load shedding category exceptions compared to gas allocation group code

ICP Identifier	Gas Gate Code	Load Shedding Category Code	Est Annual Load GJ	Allocation Group Code	ICP Status Code
0000071569NA754	FLB15601	4	10199.35	1	ACTC
0000073218NA20E	FLB15601	3	7639.51	1	ACTC
0000073609NA8E7	TWB24810	3	6772.19	1	ACTC
0000073162NA6C1	FLB15601	3	4971.36	1	ACTC
0000074498NA522	FLB15601	6	2041.31	4	ACTC
0001745052NAF63	TWB24810	3	1095	1	ACTC
0000071757NA930	TWB24810	6	608.99	4	ACTC
0000073258NA0AB	TWB24810	3	449.90	2	ACTC
0000073333NA88B	TWB24810	4	231.31	6	ACTC
0001213454NA98A	TWB24810	4	228.29	6	ACTC
0000071727NAC6D	TWB24810	4	209.39	6	ACTC
0000489571NAECE	TWB24810	4	203.94	4	ACTC
0000071715NAB10	TWB24810	4	91.07	6	ACTC
0000071749NA006	TWB24810	4	0	4	ACTC
0000490480NAFD9	TWB24810	4	0	6	ACTC

load shedding category code of 7 (Critical care designation) not on GIC list

ICP Identifier	Responsible Distributor Code	Gas Gate Code	ICP Type Code	Load Shedding Category Code	Allocation Group Code	ICP Status Code	ICP Connection Status Code
0000072518NACAC	NOVA	TWB24810	GN	7	4	ACTC	GAS
0000072519NA0E9	NOVA	TWB24810	GN	7	4	ACTC	GAS
0000072520NA940	NOVA	TWB24810	GN	7	4	ACTC	GAS
0000072532NA368	NOVA	TWB24810	GN	7	6	INACT	GMC
0000073278NADFE	NOVA	TWB24810	GN	7	2	INACP	GPM

Appendix 2 – Physical address discrepancies

Addresses which were not readily locatable

Metered ICPs with ambiguous street number or property name

ICP Identifier	ICP Creation Date	ICP Connection Status Code	Meter Identifier	ICP Status Code	Physical Address Unit	Physical Address Number/RAPID Number	Physical Address Street	Physical Address Suburb	Physical Address Region	Physical Address Post Code
0000072141NA6F4	1/10/2013	GNM	9855563	INACT		0	Railway Road	Hastings	Hawkes Bay	4172
0000073273NA32A	1/10/2013	GNC	12922	INACT		0	Railway Road	Hastings	Hawkes Bay	4172
0000073160NA644	1/10/2013	GNM	REMOVED	INACT		0	Raiha Street	Porirua	Wellington	5022
0000073278NADFE	1/10/2013	GPM	REMOVED	INACP		0	Raiha Street	Porirua	Wellington	5022
0001163079NA188	1/10/2013	GNM	REMOVED	INACT		0	Raiha Street	Porirua	Wellington	5022

ICPs with duplicate addresses

ICP Identifier	ICP Creation Date	Meter Identifier	ICP Status Code	ICP Connection Status Code	Physical Address Unit	Physical Address Number/RAPID Number	Physical Address Street	Physical Address Suburb	Physical Address Suburb	Physical Address Region	Physical Address Post Code
0000072141NA6F4	1/10/2013	9855563	INACT	GNM		0	Railway Road		Hastings	Hawkes Bay	4172
0000073273NA32A	1/10/2013	12922	INACT	GNC		0	Railway Road		Hastings	Hawkes Bay	4172
0000071475NA7E3	1/10/2013	19M519699	ACTC	GAS		154	Featherston Street	Wellington Central	Wellington	Wellington	6011
0000071547NA99A	1/10/2013	NE18101	ACTC	GAS		154	Featherston Street	Wellington Central	Wellington	Wellington	6011
0000071726NA028	1/10/2013	12920	ACTC	GAS		1	Grey Street	Wellington Central	Wellington	Wellington	6011
0000071741NA212	1/10/2013	NE15099	ACTC	GAS		1	Grey Street	Wellington Central	Wellington	Wellington	6011

0001476993NA2B8	22/03/2016	15D291742	ACTC	GAS		1	O'Reily Avenue	Te Aro	Wellington	Wellington	6011
0001476996NAFF7	22/03/2016	01C001977	ACTC	GAS		1	O'Reily Avenue	Te Aro	Wellington	Wellington	6011
0000073579NAEB9	1/10/2013	01B306439	ACTC	GAS		61	Abel Smith Street	Te Aro	Wellington	Wellington	6011
0000073581NACBA	1/10/2013	01B722211	ACTC	GAS		61	Abel Smith Street	Te Aro	Wellington	Wellington	6011
0000073161NAA01	1/10/2013	02C768767	ACTC	GAS		7	Grayson Avenue	Papatoetoe	Manukau	Auckland	2104
0000073162NA6C1	1/10/2013	R000054502	ACTC	GAS		7	Grayson Avenue	Papatoetoe	Manukau	Auckland	2104

Appendix 3 – Decommissioned status exceptions

ICPs at INACP-GPM status which have not been decommissioned

ICP Identifier	Event End Date	Responsible Distributor Code	Gas Gate Code	Responsible Retailer Code	Responsible Meter Owner Code	Meter Identifier	ICP Status Code	ICP Connection Status Code	Reason not decommissioned
0000071393NA3D4	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071410NA55C	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071411NA919	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071473NA66C	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071484NABB1	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071537NACC7	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071540NA450	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071548NA644	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071576NA227	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000071615NA214	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000122483NA383	03-Apr-24	NOVA	FLB15601	GNVG	NOVA	REMOVED	INACP	GPM	Check Meter not a Distribution ICP
0000073191NAA16	29/02/2024	NOVA	FLB15601	GNVG	NOVA	R000052260	INACP	GPM	Gas No longer Required No appliances
0000071759NAAAB	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Gas No longer Required No appliances
0000073278NADFE	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Gas Sourced from Alternate network
0000073745NA058	29/02/2024	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Gas No longer Required No appliances
0000073429NAFB5	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Gas No longer Required No appliances
0000072630NA0EE	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Consumer request
0000072634NA1E4	03-Apr-24	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Consumer request
0000073431NA70C	03-Apr-24	NOVA	FLB15601	GNVG	NGCM	REMOVED	INACP	GPM	Consumer request
0000071663NA6C6	29/02/2024	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Gas No longer Required No appliances
0000073334NA541	19/04/2023	NOVA	TWB24810	GNVG	NOVA	REMOVED	INACP	GPM	Consumer request
0000071436NA986	03-Apr-24	NOVA	FLB15601	GNVG	NOVA	RZEMOVED	INACP	GPM	Gas No longer Required No appliances

Appendix 4 – Meter accuracy

Installation / Inspection records

ICP	Meter number (or meter serial number)	Meter type (diaphram, rotary, Turbine, Ultrasonic, corrector)	Meter / corrector Make	Meter / corrector model	Manufacture date / year (If available)	Meter / corrector test date (if available)	Meter / corrector install date	Installation / Inspection records provided?
1000525301PG49A	01B923400	Diaphragm	AMC	AL425	1/01/2001	29/05/2006	02/02/2000	No
0000089081NA263	00A751224	Diaphragm	AMC	AL425	1/10/2000	29/05/2006	02/02/2000	No
0000071744NAF5D	02C274251	Diaphragm	AMC	AL425	1/01/2002		02/02/2000	No
0000071408NADE5	98Z674019	Diaphragm	AMC	AL425	1/01/1999		02/02/2000	No
0002318031QT189	01B830377	Diaphragm	AMC	AL425	1/01/2001	14/11/2001		No
0001440077QT217	02C382342	Diaphragm	Elster	AC630	1/01/2002	18/05/2006		No
0000073786NAB77	00A751258	Diaphragm	AMC	AL425	1/01/2000	29/05/2006		No
0001392644QT533	02C509666	Diaphragm	AMC	AL425	1/01/2002	29/05/2006		No
0002380998QT40A	51057429	Diaphragm	Elster	AC630				No
0001417154QTD92	00S1067523	Diaphragm	Elster	AC630	1/01/2000			No
0001416308QTD23	01S1079502	Diaphragm	Elster	AC630	1/01/2001			No
0001416533QT209	02C242841	Diaphragm	AMC	AC630	1/01/2002			No
0001437099QT5EF	03D568296	Diaphragm	Elster	AC630	1/01/2003			No
0000101221NA632	01B658317	Diaphragm	AMC	AL425	1/01/2001			No
1000498462PG8ED	03C895793	Diaphragm	AMC	AL425	1/01/2003	14/04/2003		No
0001424656QT1D9	02C509669	Diaphragm	AMC	AL425	1/01/2002			No
0000071518NAE4C	245021	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000523373PG482	245023	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000523375PG50D	245027	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000523377PG588	245028	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000519093PG257	200169	Diaphragm	EMAIL	E610				No
1000519092PGE12	200170	Diaphragm	EMAIL	E610				No

ICP	Meter number (or meter serial number)	Meter type (diaphram, rotary, Turbine, Ultrasonic, corrector)	Meter / corrector Make	Meter / corrector model	Manufacture date / year (If available)	Meter / corrector test date (if available)	Meter / corrector install date	Installation / Inspection records provided?
1000519326PGEA9	200172	Diaphragm	EMAIL	E610				No
1000523372PG8C7	200823	Diaphragm	EMAIL	E610				No
0002095571QTF98	303999	Diaphragm	L & G	NZ750				No
0002321071QTEA0	9822674	Rotary	ROOTS	RT7M	1/01/1998	15/03/2010	17/03/2010	No
0000071433NA4C9	9855567	Rotary	ROOTS	RT7M	1/01/1998	19/01/2004	1/10/2013	No
0000072523NA580	9923634	Rotary	ROOTS	RT7M	1/01/1999	13/10/2005	1/10/2013	No
0000071747NA39D	0042925	Rotary	ROOTS	RT7M	1/01/2000	07/08/2008	1/10/2013	No
0000071749NA006	9735992	Rotary	ROOTS	RT5M	1/01/1997	02/02/2005	1/10/2013	No
0000073270NAFEA	9941864	Rotary	ROOTS	RT5M	1/01/1999	18/01/2006	1/10/2013	No
0000073265NA808	9923631	Rotary	ROOTS	RT5M	1/01/1999	19/10/2006	1/10/2013	No
0000071698NA805	9941863	Rotary	ROOTS	RT5M	1/01/1999	07/12/2009	21/01/2010	No
0000072160NA7E4	9754125	Rotary	ROOTS	RT3M	1/01/1997	24/04/2009	23/09/2012	No
0001424340QTFFE	0241403	Rotary	ROOTS	RT3M	1/01/2002	18/12/2002	26/02/2009	No
0002380464QT20B	0040145	Rotary	ROOTS	RT3M			12/09/2009	No
0000072532NA368	9756660	Rotary	ROOTS	RT15C	1/01/1997	21/03/2011	05/03/2012	No
0000071503NAA35	9739276	Rotary	ROOTS	RT15C	1/01/1997	07/12/2009	11/05/2010	No
0002259411QTE84	9923616	Rotary	ROOTS	RT15C	1/01/1999	24/04/2009	01/07/2009	No
0000071581NAFFA	0011370	Rotary	ROOTS	RT15C	1/01/2000	13/10/2006	07/02/2008	No
0000072528NAB54	0042956	Rotary	ROOTS	RT11M	1/10/2000	26/06/2008	17/03/2010	No
0000097337NA27C	9947966	Rotary	ROOTS	RT11C	1/01/1999	07/12/2009	24/09/2012	No
0000071446NACDB	852249	Rotary	ROMET	RM200	1/01/1985	31/07/2008	1/10/2013	No
0000071726NA028	012920	Rotary	ROMET	G65	1/01/2001	10/12/2009	21/01/2010	No
0000127061QT467	012556	Rotary	ROMET	G65	1/01/2001	19/04/2001	26/02/2009	No
0000071750NA4FA	012557	Rotary	ROMET	G65	1/01/2001	16/04/2012	1/10/2013	No
1000512909PG9C8	021568	Rotary	ROMET	G65	1/01/2002	27/03/2009	25/11/2009	No
0000071592NA997	021575	Rotary	ROMET	G65	1/01/2002	26/06/2008	28/01/2010	No

0000073264NA44D	2061338	Rotary	IMETER	G65	1/01/2006	17/11/2006	1/10/2013	No
0000071659NA3AF	011088	Rotary	ROMET	G40	1/01/2001	13/10/2006	25/01/2007	No
0001416402QT0B0	021552	Rotary	ROMET	G40	1/01/2002		26/02/2009	No
0000097147NAD26	2061309	Rotary	IMETER	G40	1/01/2006	17/11/2006	1/10/2013	No
0000072518NACAC	0835741	Rotary	ROMET	G25			29/01/2009	No
1001104568QTEE8	012918	Rotary	ROMET	G25			1/05/2011	No
1001251161QT458	R000001880	Rotary	IMETER	G160		25/06/2013	21/07/2013	No
0000071407NA23B	0329762	Rotary	ROMET	G100	1/01/2003	14/04/2005	7/09/2015	No

Correctors

ICP	Serial Number	Make	Model	Manufacture Date	Certificate Date	Install Date	Installation / Inspection records provided?
0002038141QT8A9	4513869	Elster GmbH	EK280	21/09/2018	02/07/2019	1/07/2019	No
0000073218NA20E	4518119	Elster GmbH	EK280	29/03/2019	26/06/2019	5/07/2019	No
0000073220NA7E2	4518118	Elster GmbH	EK280	29/03/2019	26/06/2019	8/07/2019	No
0000073413NAADC	4518120	Elster GmbH	EK280	29/03/2019	28/05/2019	11/07/2019	No
0000073198NA447	4518121	Elster GmbH	EK280	29/03/2019	26/06/2019	17/07/2019	No

Meters exceeding compliance period

ICP	Meter number (or meter serial number)	Meter type (diaphram, rotary, Turbine, Ultrasonic, corrector)	Meter / corrector Make	Meter / corrector model	Manufacture date / year (If available)	Meter / corrector test date (if available)	Meter / corrector install date	Installation / Inspection records provided?
1000525301PG49A	01B923400	Diaphragm	AMC	AL425	1/01/2001	29/05/2006	02/02/2000	No
0002318031QT189	01B830377	Diaphragm	AMC	AL425	1/01/2001	14/11/2001		No
0001440077QT217	02C382342	Diaphragm	Elster	AC630	1/01/2002	18/05/2006		No

ICP	Meter number (or meter serial number)	Meter type (diaphram, rotary, Turbine, Ultrasonic, corrector)	Meter / corrector Make	Meter / corrector model	Manufacture date / year (If available)	Meter / corrector test date (if available)	Meter / corrector install date	Installation / Inspection records provided?
0001392644QT533	02C509666	Diaphragm	AMC	AL425	1/01/2002	29/05/2006		No
0002380998QT40A	51057429	Diaphragm	Elster	AC630				No
0001417154QTD92	00S1067523	Diaphragm	Elster	AC630	1/01/2000			No
0001416308QTD23	01S1079502	Diaphragm	Elster	AC630	1/01/2001			No
0001416533QT209	02C242841	Diaphragm	AMC	AC630	1/01/2002			No
0001437099QT5EF	03D568296	Diaphragm	Elster	AC630	1/01/2003			No
1000498462PG8ED	03C895793	Diaphragm	AMC	AL425	1/01/2003	14/04/2003		No
0001424656QT1D9	02C509669	Diaphragm	AMC	AL425	1/01/2002			No
1000523373PG482	245023	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000523375PG50D	245027	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000523377PG588	245028	Diaphragm	EMAIL	E610	1/01/2003	24/12/2003		No
1000519093PG257	200169	Diaphragm	EMAIL	E610				No
1000519092PGE12	200170	Diaphragm	EMAIL	E610				No
1000519326PGEA9	200172	Diaphragm	EMAIL	E610				No
1000523372PG8C7	200823	Diaphragm	EMAIL	E610				No
0002095571QTF98	303999	Diaphragm	L & G	NZ750				No
0001424340QTFFE	0241403	Rotary	ROOTS	RT3M	1/01/2002	18/12/2002	26/02/2009	No
0002380464QT20B	0040145	Rotary	ROOTS	RT3M			12/09/2009	No
0002259411QTE84	9923616	Rotary	ROOTS	RT15C	1/01/1999	24/04/2009	01/07/2009	No
0000071581NAFFA	0011370	Rotary	ROOTS	RT15C	1/01/2000	13/10/2006	07/02/2008	No
0000127061QT467	012556	Rotary	ROMET	G65	1/01/2001	19/04/2001	26/02/2009	No
1000512909PG9C8	021568	Rotary	ROMET	G65	1/01/2002	27/03/2009	25/11/2009	No
0000071659NA3AF	011088	Rotary	ROMET	G40	1/01/2001	13/10/2006	25/01/2007	No
0001416402QT0B0	021552	Rotary	ROMET	G40	1/01/2002		26/02/2009	No
0000072518NACAC	0835741	Rotary	ROMET	G25			29/01/2009	No

Appendix 5 - Registry information management

Removed meters still present on registry

ICP Identifier	Responsible Distributor Code	ICP Status Code	ICP Connection Status Code	Responsible Meter Owner Code	Registry Meter Identifier	CMMS meter serial number
0000013501QTD52	UNLG	INACT	GNM	NOVA	21556	
0000072141NA6F4	NOVA	INACT	GNM	NOVA	9855563	
0001420732QT0A7	UNLG	INACT	GNM	NOVA	NZ304546	
0001429374QT32C	UNLG	DECR	GDE	NOVA	233704	
0001447621QT9F6	UNLG	INACT	GNM	NOVA	20450	
0002379324QT690	UNLG	INACT	GNM	NOVA	200122	
0002379325QTAD5	UNLG	INACT	GNM	NOVA	200125	
0002379668QT22E	UNLG	INACT	GNM	NOVA	00A871612	

Appendix 6 - Registry validation and correction

meter price category code exceptions

	Meter Model							
Meter price category code	**AC630**	**AL1000**	**AL425**	**G065**	**G40**	**G65**	**RM200**	**RT15C**
NV10		1	3			1	1	
NV100				2		1		
NV25			163					1
NV37	21	1	1		1			1
NV62	2	2						
NVR100	1			1				
NVR65	1	3		3	2	2		

Logger Owner exceptions

ICP Identifier	Responsible Retailer Code	Allocation Group Code	Profile Code	Responsible Meter Owner Code	Meter Identifier	Meter Location Code	Standard Meter Y/N	Prepay Meter Y/N	Advanced Metering Y/N	Logger Owner Code
0000071569NA754	GNVG	1	XTOU	NOVA	R000049194	0	N	N	N	NONE
0000073568NA851	GNVG	1	XTOU	NOVA	R000056492	0	Y	N	N	NONE
0001745052NAF63	GNVG	1	XTOU	NOVA	R000059520	0	Y	N	N	NONE
0001745054NAEEC	GNVG	1	XTOU	NOVA	R000059528	0	N	N	N	NONE
0001788311QTA6F	GNVG	1	XTOU	NOVA	R000049812	BD	N	N	N	NONE

Meter type flag exception Standard and TOU meter flags

ICP Identifier	Responsible Retailer Code	Allocation Group Code	Profile Code	Responsible Meter Owner Code	Meter Identifier	Meter Location Code	Standard Meter Y/N	Prepay Meter Y/N	Advanced Metering Y/N	Logger Owner Code	TOU Meter Y/N
0000009461QTD07	GNVG	1	XTOU	NOVA	R000033969	0	Y	N	N	NOVA	Y
0000073162NA6C1	GNVG	1	XTOU	NOVA	R000054502	0	Y	N	N	NOVA	Y
0000073192NA6D6	GNVG	1	XTOU	NOVA	R000052257	0	Y	N	N	NOVA	Y
0000073196NA7DC	GNVG	1	XTOU	NOVA	R000033977	0	Y	N	N	NOVA	Y
0000073197NAB99	GNVG	1	XTOU	NOVA	22204604	0	Y	N	N	NOVA	Y
0000073198NA447	GNVG	1	XTOU	NOVA	R000033972	0	Y	N	N	NOVA	Y
0000073200NAAB7	GNVG	1	XTOU	NOVA	R000052259	0	Y	N	N	NOVA	Y
0000073214NA110	GNVG	1	XTOU	NOVA	R000056211	FP	Y	N	N	NOVA	Y
0000073218NA20E	GNVG	1	XTOU	NOVA	R000033970	0	Y	N	N	NOVA	Y
0000073220NA7E2	GNVG	1	XTOU	NOVA	R000035373	0	Y	N	N	NOVA	Y
0000073233NA18F	GNVG	1	XTOU	NOVA	22303508	0	Y	N	N	NOVA	Y
0000073234NAC45	GNVG	1	XTOU	NOVA	R000041900	0	Y	N	N	NOVA	Y
0000073235NA000	GNVG	1	XTOU	NOVA	R000056210	0	Y	N	N	NOVA	Y
0000073238NAF5B	GNVG	1	XTOU	NOVA	2061339	0	Y	N	N	NOVA	Y
0000073246NA99D	GNVG	1	XTOU	NOVA	R000027208	0	Y	N	N	NOVA	Y
0000073254NA3B5	GNVG	1	XTOU	NOVA	R000044393	0	Y	N	N	NOVA	Y
0000073257NAF75	GNVG	2	XTOU	NOVA	R000056491	0	Y	N	N	NOVA	Y
0000073258NA0AB	GNVG	2	XTOU	NOVA	22204162	0	Y	N	N	NOVA	Y
0000073273NA32A	GNVG	2	XTOU	NOVA	12922	0	Y	N	N	NOVA	Y
0000073413NAADC	GNVG	1	XTOU	NOVA	R000033973	0	Y	N	N	NOVA	Y
0000073440NAE14	GNVG	1	XTOU	NOVA	R000035370	0	Y	N	N	NOVA	Y
0000073499NAD07	GNVG	2	XTOU	NOVA	22204163	0	Y	N	N	NOVA	Y
0000073568NA851	GNVG	1	XTOU	NOVA	R000056492	0	Y	N	N	NONE	Y
0000073603NAA76	GNVG	1	XTOU	NOVA	22204166	0	Y	N	N	NOVA	Y
0000073609NA8E7	GNVG	1	XTOU	NOVA	R000075332	0	Y	N	N	NOVA	Y
0000074097NA6FD	GNVG	1	XTOU	NOVA	R000056209	0	Y	N	N	NOVA	Y
0000372251QT514	GNVG	1	XTOU	NOVA	R000056493	0	Y	N	N	NOVA	Y

ICP Identifier	Responsible Retailer Code	Allocation Group Code	Profile Code	Responsible Meter Owner Code	Meter Identifier	Meter Location Code	Standard Meter Y/N	Prepay Meter Y/N	Advanced Metering Y/N	Logger Owner Code	TOU Meter Y/N
0001345244NA7F9	GNVG	1	XTOU	NOVA	R000052255	BLFR	Y	N	N	NOVA	Y
0001407762QT502	GNVG	1	XTOU	NOVA	R000033975	0	Y	N	N	NOVA	Y
0001407866QTB07	GNVG	1	XTOU	NOVA	R000052276	0	Y	N	N	NOVA	Y
0001436452QT175	GNVG	1	XTOU	NOVA	R000052262	0	Y	N	N	NOVA	Y
0001449009NAE8B	GNVG	1	XTOU	NOVA	R000033976	BLFR	Y	N	N	NOVA	Y
0001745052NAF63	GNVG	1	XTOU	NOVA	R000059520	0	Y	N	N	NONE	Y
0001809013QT916	GNVG	1	XTOU	NOVA	R000027422	0	Y	N	N	NOVA	Y
0002037001QTA68	GNVG	1	XTOU	NOVA	R000029568	0	Y	N	N	NOVA	Y
0002038031QT4F0	GEND	2	XTOU	NOVA	R000001800	0	Y	N	N	NOVA	Y
0002038141QT8A9	GNVG	1	XTOU	NOVA	R000033968	0	Y	N	N	NOVA	Y
0002039381QT4E1	GNVG	1	XTOU	NOVA	22204168	0	Y	N	N	NOVA	Y
1000521000PGD5C	GNVG	1	XTOU	NOVA	R000052258	0	Y	N	N	NOVA	Y

Telemetry flag exceptions

ICP Identifier	Responsible Retailer Code	Allocation Group Code	Profile Code	Responsible Meter Owner Code	Meter Identifier	Meter Location Code	Standard Meter Y/N	Prepay Meter Y/N	Advanced Metering Y/N	Logger Owner Code	Corrector Owner Code	Telemetry Owner Code
0000071569NA754	GNVG	1	XTOU	NOVA	R000049194	0	N	N	N	NONE	NOVA	NONE
0000073162NA6C1	GNVG	1	XTOU	NOVA	R000054502	0	Y	N	N	NOVA	NOVA	NONE
0000073234NAC45	GNVG	1	XTOU	NOVA	R000041900	0	Y	N	N	NOVA	NOVA	NONE
0000073257NAF75	GNVG	2	XTOU	NOVA	R000056491	0	Y	N	N	NOVA	NOVA	NONE
0000073258NA0AB	GNVG	2	XTOU	NOVA	22204162	0	Y	N	N	NOVA	NOVA	NONE
0000073273NA32A	GNVG	2	XTOU	NOVA	12922	0	Y	N	N	NOVA	NOVA	NONE
0000073568NA851	GNVG	1	XTOU	NOVA	R000056492	0	Y	N	N	NONE	NOVA	NONE
0000372251QT514	GNVG	1	XTOU	NOVA	R000056493	0	Y	N	N	NOVA	NOVA	NONE
0001809013QT916	GNVG	1	XTOU	NOVA	R000027422	0	Y	N	N	NOVA	NOVA	NONE
0002038031QT4F0	GEND	2	XTOU	NOVA	R000001800	0	Y	N	N	NOVA	NOVA	NONE

Appendix 7 – Control Rating Definitions

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

Appendix 8 – Impact Rating Definitions[1]

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

[1] These ratings are indicative and will be used as a guide only, to aid the Market Administrator's assessment of alleged breaches.

Appendix 9 – 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 10 – Nova Comments