PERFORMANCE AUDIT REPORT UNDER THE SWITCHING ARRANGEMENTS AND DOWNSTREAM RECONCILIATION RULES

Powerco Limited as Distributor and Meter Owner

Audit date: 16 to 18 November 2021

Report date: 28 January 2022

Under the Gas (Switching Arrangements) Rules 2008 and the Gas (Downstream Reconciliation) Rules 2008 the Gas Industry Company has commissioned Langford Consulting to undertake a performance audit of Powerco Limited in its role of distributor and meter owner. The purpose of the audit is to assess compliance with the rules and the systems and processes put in place to enable compliance.

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Executive Summary

Under the Gas (Switching Arrangements) Rules 2008 and the Gas (Downstream Reconciliation) Rules 2008 the Gas Industry Company (GIC) commissioned Langford Consulting to undertake a performance audit of Powerco Ltd (Powerco).

The purpose of the audit is to:

- assess compliance with the rules
- assess the systems and processes put in place to enable compliance with the rules

The audit was conducted within the terms of reference supplied by the GIC and within the guideline note *Guideline note for rules 65 to 75: the commissioning and carrying out of performance audits and event audits, version 3.0* (http://www.gasindustry.co.nz/dmsdocument/2858).

The engagement commenced on 20 August 2021 and involved a site visit to Powerco's Wellington office on 16 to 18 November 2021. Powerco staff joined the audit from other locations using Teams software and shared screens where relevant to help illustrate processes.

In general, the auditor noted that significant process improvements had been made, particularly in the frequency of alignment checks between Powerco systems and the registry, as well as the introduction of new data integrity checks and work to progress decommissioned ICPs. However, documentation to illustrate metering compliance was difficult to locate.

The summary of report findings shows that the Powerco control environment, for the 15 areas evaluated, was found to be: "effective" for 13 areas; "not adequate" for 1 area; "not applicable" for 1 area.

7 breach allegations are made in relation to Powerco regarding the non-compliant areas and are summarised in the following table. There is also an alleged breach arising for 3 retailers. The following observation and recommendations were also made:

> **RECOMMENDATION**: That Powerco improve the integrity checks in their tool for reviewing load shedding categories, particularly with regard to ensuring the DOM code is used accurately.
>
> This recommendation has already been implemented.
>
> **OBSERVATION:** Powerco have suspended the statistical sampling of smaller meters as required by NZS5259, given the expected rollout of smart meters in 2022. If there is any significant delay to the smart metering project this suspension will need to be reconsidered.
>
> **RECOMMENDATION:** That Powerco considers how it stores documentation to demonstrate compliance with NZS5259.
>
> **RECOMMENDATION:** That Powerco consider how they record retailer metering queries. The logging of these in one central place would enable monitoring, to assure them of timely responses and to help identify emerging trends/issues.

Summary of breach allegations

All breach allegations are made under the Gas (Switching Arrangements) Rules 2008 unless otherwise stated.

Section	Summary of issue	Rules potentially breached
4.2	Of 62 new connections reviewed, 2 were found not to have had an ICP identifier assigned within 3 business days and the retailer not to have been informed	r51.2
4.2	6 new ICPs had been incorrectly assigned to the wrong gas gate	r58.1
4.3	134 ICPs were in the wrong load shedding categories, including some categorised as domestic that appear to be commercial.	r58.1
4.3	6 ICPs were found to have incorrect altitudes and/or addresses	r58.1
4.3	16 ICPs were found to have incorrect network pressure	r58.1
5.1	The statistical sampling of their smaller meters required by NZS5259, has been suspended	Gas (Downstream Reconciliation) r 27.1
5.5	Powerco had incorrectly shown a meter as removed in the registry.	r58.1
5.5	Incorrect status by retailer, the ICP was shown as active after the meter had been removed. • 3 ICPs for GENG • 3 ICPs for CTCT • 1 ICP for MEEN	r58.1

Summary of report findings

Issue	Section	Control Rating	Compliance Rating	Comments
GENERAL				
Participant registration information	3.1	Effective	Compliant	A routine check had been implemented since the last audit.
Obligation to act reasonably	3.2	Effective	Compliant	No examples of Powerco acting unreasonably were found
Obligation to use registry software competently	3.3	Effective	Compliant	No examples of Powerco using software incompetently were found
AS DISTRIBUTOR				
Assignment of ICPs	4.1	Effective	Compliant	Controls are a blend of system validations and appropriate interventions by an experienced team
Creation of new ICPs	4.2	Effective	Not compliant	ICPs were added to the registry within the required timeframes, only minor problems with accuracy of registry data were identified, 2 of 62 ICP identifiers were not created within 3 business days
Maintenance of ICPs in the registry	4.3	Effective	Not compliant	Registry data is aligned with Powerco systems, only minor issues were found with data accuracy. One matter arising with the maintenance of load shedding has already been addressed.
Notices of gas gate creation/decommissioning	4.4	Not applicable	Not applicable	There had been no gas gate changes since the last audit
Publishing of network price category codes	4.5	Effective	Compliant	These were reviewed and found to be current and publicly available

Disclosure of ICP information	4.6	Effective	Compliant	Powerco had a portal for price enquiries and all recent requests had been met within the required timeframe
Loss factor codes	4.7	Effective	Compliant	There were no changes to loss factor codes, the current codes were published.
AS METER OWNER				
Compliance with NZS5259	5.1	Not adequate	Unable to form a view	A strong suite of operating procedures to ensure compliance are in place, but documentation to demonstrate compliance could not be comprehensively supplied Sampling of small meters has been suspended pending installation of smart meters
Provision of metering price codes	5.2	Effective	Compliant	Metering prices were provided and are sent to participants.
Disclosure of ICP information	5.3	Effective	Compliant	All recent requests had been met within the timeframes
Registry information for new ICPs	5.4	Effective	Compliant	Registry information was accurate and uploaded in a timely fashion
Maintenance of ICP information	5.5	Effective	Not compliant	One ICP was incorrectly recorded as having its meter removed.

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1. Introduction

Under the Gas (Switching Arrangements) Rules 2008 (the rules) and the Gas (Downstream Reconciliation) Rules 2008 the Gas Industry Company (GIC) commissioned Langford Consulting to undertake a performance audit of Powerco Ltd (Powerco) as a distributor and meter owner. The audit was commissioned under rule 88 and was conducted within terms of reference prepared by the GIC.

The purpose of the audit is to:

- assess compliance with the rules
- assess the systems and processes put in place to enable compliance with the rules

In preparing the report, the auditor used the processes set out in the guideline note issued on 1 June 2013: *Guideline note for rules 65 to 75: the commissioning and carrying out of performance audits and event audits, version 3.0* (http://www.gasindustry.co.nz/dmsdocument/2858).

All references to the rules are made under the Gas (Switching Arrangements) Rules 2008 unless otherwise stated.

Powerco is the distributor for 113,000 active ICPs and meter owner for 73,000 ICPs. Powerco only own meters on their own distribution network.

The engagement commenced on 20 August 2021 and involved a site visit to Powerco's Wellington office on 16 to 18 November 2021. Powerco staff joined the audit from other locations using Teams software and shared screens where relevant to help illustrate processes.

2. General Compliance

2.1 Switch Breach Report

Powerco has received one breach allegation since the last audit. This was made by Veritek Ltd under the downstream reconciliation rules 26.5.1 and 26.5.4, the general requirement for information required by the rules to be accurate and complete and to support compliance with NZS5259.

2.2 Summary of previous audit

The last audit was undertaken by Veritek Ltd in October 2017.
A summary of the distributor breach allegations raised was as follows:

- Powerco's telephone number is out of date in the registry participant information. All other details are correct.
- Two of a sample of 40 ICPs not created within 3 business days
- 474 of 2,086 updates to "Ready" not made within 2 business days.
- Some inaccurate network pressures identified
- One material altitude error found
- 173 ICPs with incorrect gas gates
- 534 load shedding category discrepancies
- 1,479 ICPs with duplicate or missing address information
- Incorrect event dates for 715 ICPs changed to decommissioned status
- Not all registry updates made as soon as practicable.

A summary of the breach allegations raised as meter owner was as follows:

- Powerco's telephone number is out of date in the registry participant information. All other details are correct.
- Some metering information was not updated on the registry within two business days of the meter being installed.
- A small number of inaccuracies in meter event dates, locations, pressures, digits and multipliers were identified. Some of these issues were identified and corrected by Powerco prior to the audit.

Powerco supplied the following description of actions undertaken as a result of the last distribution and meter owner audits.

> *From the recommendations and actions in the previous audits (both distributor and metering) we have implemented new reporting tools to help us identify and correct errors quickly and efficiently:*
>
> - *Validation checks have been expanded to include more consistency checks between values on the same ICP, including:*
> - *a meter digit check to ensure no meter has less than 4 digits (from previous audit recommendation)*
> - *a comparison of network and meter pressure for meters operating at network pressure.*
> - *Reconciliation and validation checks are now done weekly instead of once per month*
>
> *Powerco has also developed a new 'fixer' tool which will allow for easier updates to previously difficult fields in our system (implemented in Jan 2022)*
>
> *The previous audit identified making updates as soon as practicable as an area of improvement. Weekly reporting was in part implemented to better meet this obligation.*

We have improved the decommissions process. ICPs with jobs to decom or statuses indicating a decommission are now monitored in a weekly report and queries/requests are then sent to retailers and/or contractors where necessary to ensure jobs progress in a timely manner.

As part of our exception reporting, we are working through historic meter location inconsistencies. This work is still in progress.

In response to the previous auditor's recommendation to spot check contractor information we have focused on checking data is accurate and makes sense before staff enter it into our systems.

A system issue identified in section 5 of Powerco's metering audit where incorrect metering events were being sent to registry was resolved in 2018.

Section 2.1 of both audits identified that Powerco's contact details in the registry were out of date. These were updated and now contact details are now reviewed every six months; prompted by an automated reminder.

2.3 Provision of Information to the Auditor

In conducting this audit, the auditor may request any information from Powerco, the industry body and any registry participant.

Information was provided by Powerco in a timely manner in accordance with this rule.

3. General obligations

3.1 Participant registration information

The participant register information for Powerco was last updated in June 2020 and was found to be up to date, an improvement since the last audit.

3.2 Obligation to act reasonably

No examples of Powerco acting unreasonably were found.

3.3 Obligation to use registry software competently

No examples of Powerco using registry software incompetently were found.

4. Obligations as Distributor

The audit took a multi layered approach reviewing the Powerco processes and controls; looking for outliers in the data to investigate; reviewing a sample of ICPs for the accuracy of the registry fields.

4.1 Assignment of ICPs (rules 5.2, 43.1 and 43.2)

Powerco uses its Customer Works Management System (CWMS) to manage its workflow for new connections and its registry interface. The system has been in place since 2009, although they are constantly making improvements to the technology and the associated processes.

The new connection process starts with the creation of an application. This might be automatically generated by a retailer or developer who has logon rights to CWMS or may be manually created by the new connections team as a result of an e-mail or phone call from a customer. Every application includes some compulsory information, including details of the appliances that are anticipated, although changes to some of the fields can occur later in the new connection process as build projects evolve.

Details of anticipated appliances are useful for sizing the anticipated gas usage which in turn informs other size related aspects such as population of the load shedding field, network price category or decisions regarding metering equipment.

Rule 43.1 and 43.2

These rules require that a distributor assign an ICP identifier for each consumer installation connected to its system. Each consumer installation must represent a single consumer installation that:

- may be isolated without affecting another consumer installation
- may have a single loss factor and network price category and
- has its gas volume measured directly by a single set of compliant metering equipment or indirectly by a method approved by the industry body

CWMS performs some automatic checks to validate the address and automatically populates fields for gas gate and network pressure using GIS information. If the address can't be found (e.g. for new subdivisions) the process switches to a new connections team member to research the situation and complete the fields manually.

Once an application is created it is then processed by applying various checks to ensure it is a valid connection. For example, the team check for another record with the same address, ensures that a connection is viable and verifies that the application has been associated with the correct network. Larger or more complex sites may get a site visit at this stage but most ICPs can be managed using office-based information including GIS and Google Earth. Larger new customers will also be highlighted to the pricing team for discussion of the network price code and the cost of connection.

Powerco's controls in the new connections process were found to be sufficient to comply with the requirements of rule 43.1 and 43.2.

4.2 Creation of new ICPs (rule 51.2 and 51.3)

If the distributor receives a request from a retailer, they must assign an ICP identifier to the new consumer installation within 3 business days of the request or notify the retailer why the ICP cannot be assigned.

As soon as the application has been validated by the new connections team, an ICP identifier is created.

The auditor requested Powerco produce a list of date exceptions where the ICP creation had not occurred within 3 business days of the application. Each of the exceptions were then reviewed to see if the retailer had been notified of the reason why an ICP identifier had not been created.

62 new connections were reviewed for the number of days between the date the original application was received and the date the application is validated and the ICP assigned. 13 were found to have not had ICPs assigned within the 3 business days. These exceptions were reviewed and 3 were found to have had the jobs cancelled and 8 were found to have been referred back to the retailer to confirm details. The remaining 2 new connections of the 62 reviewed were found to have not had the ICP number assigned within 3 business days and the retailer not to have been notified why.

> **ALLEGED BREACH:** Of 62 new connections reviewed, 2 were found not to have had an ICP identifier assigned within 3 business days and the retailer not to have been informed why (rule 51.2)

See appendix B for alleged breach detail

As a part of the audit the background code to the creation of the ICP identifier was viewed, including the automatic insertion of the Powerco two letter code. Powerco was not aware of any instances of the registry rejecting their ICP identifier and the auditor was able to confirm all new ICPs created by Powerco since 1/1/2018 included the correct two letter code. No issues arose with the methodology for the creation of the ICP identifier.

Once verified a quote is sent to the customer, along with terms and conditions for them to agree to. The possible outcomes from this are accept, query, decline or no response. Queries and nil responses are actively managed until either an accept or decline response occurs. Decline outcomes result in the closure of the case.

Acceptance by the customer of the quote requires there to be a nominated retailer, so following acceptance of the quote the retailer is notified. If the retailer declines the new ICP there is further liaison with the customer until a retailer acceptance is achieved.

The last step is then for the contractors to connect the ICP. This step can take anything from 2 weeks to 18 months depending on the complexity and the progress of the wider project of which the new ICP connection is a part. Although customers are given a choice, they almost always choose a Powerco meter as this provides a more streamlined process from a customer perspective.

Once a distributor receives confirmation that a new consumer installation is first connected to its distribution system, they must enter the ICP identifier, creation date, responsible distributor and physical address in the registry, within 2 business days of having identified the values of the remaining distributor parameters (rule 51.3).

The Powerco CWMS system is directly accessed by the field service provider who populates it with the relevant information regarding the physical connection. It is possible to enter the information piecemeal over a period or all in one go. As soon as all the information is provided it means that the physical connection is confirmed as connected. The system automatically pushes the relevant data to the registry overnight. The process is therefore designed to update the registry fields within 1 day, the fields required in rules 51.3 and 53.1 are concatenated into one activity within the 2-business day requirements.

A sample of 25 new ICPs created since 1/1/2018 were reviewed against the required timeframes. The 'submit works complete date' was compared to the network registry event date for the population of the distributor data on the registry. In all cases registry population was done within 1 business day, so the process was confirmed as compliant, and no breaches were found.

Once the physical new connection is complete and the registry populated, ownership of the connection moves from the new connections team to the connections team. So, if the registry update file fails to populate with the new connection information the connections team will manage this through their daily general management of failed registry files. Any data integrity issues will be identified by the weekly data integrity checks.

Gas Gates

Most Powerco new connections have the gas gates assigned automatically by reference to the GIS system. Occasionally addresses can't be found in GIS, for example for new subdivisions, in which case the gas gate is allocated manually by someone on the new connections team.

A review of all ICPs created since 2018 identified some outliers with addresses that might not be associated with the registry gas gate. The list of outliers was further reviewed and 6 ICPs were identified as requiring a change of gas gate.

> **ALLEGED BREACH:** 6 new ICPs had been incorrectly assigned to the wrong gas gate (rule 58.1)

See appendix B for details.

Load shedding

CWMS automatically populates new ICPs with a load shedding category. It has a background table which contains the load shedding rules from the Critical Contingency regulations.

The active Powerco ICPs were reviewed for unusual coincidences of load shedding/network pricing code/ allocation group. This resulted in a list of outliers for further review. The outliers included both new and established ICPs, so the outcome of the review is detailed below in the maintenance of ICPs.

Altitude

Altitude is automatically populated in CWMS using the address, which connects to GIS to find the altitude.

A review of active Powerco ICPs looked for altitudes that were outliers compared to other ICPs at the same gate. This review included both new and established ICPs so is reported on below as a part of the ICP maintenance section.

Network pressure

An analysis of network pressure for all active Powerco ICPs was done. This showed only 7 entries for the network pressure field. The distribution of ICPs by each entry was as follows:

Network pressure	No of ICPs
4	511
16	13,220
118	76,844
315	22,013
560	49
950	268
1600	1

Each network pressure group was reviewed by gas gate to look for outliers. The 49 outliers, a mixture of new and established ICPs, were then further reviewed. This is further detailed in the maintenance of ICPs section.

Network Pricing Category

Powerco have had the same price codes since 2011. Price changes are usually initiated by a query from the retailer. Powerco don't routinely review price codes to identify changes in load that might lead to a pricing change.

The pricing code is populated by CWMS automatically using the load information provided in the application. CWMS has a background table which holds the network pricing categories by load. The code can however be overwritten for DOA situations.

No issues with incorrect pricing categories in the registry were found.

4.3 Maintenance of ICPs in the registry

The Powerco processes for maintaining data in the registry consist of:

- Nightly push/pull of registry files
- Daily checks of registry file failures

- A weekly check of data alignment between Powerco and the registry by pulling a LIS file and reviewing differences
- Quality checks on data by looking for integrity issues (i.e. where one field is inconsistent with the data held in another field)

Powerco have strengthened their processes since the last audit by increasing the frequency of checks between their systems and the registry to weekly instead of monthly. Every Wednesday they take a snapshot of the LIS file and do a comparison against their system.

They have also added internal consistency checks for unusual coincidences of data such as addresses that don't match gas gates; meter and network pressures; consistency with GIS altitude. These checks help maintain the quality of data.

A lot of the distributor and meter owner data is relatively static, the biggest changes being retailer switches. The connections team have however identified that changing status to decommissioned had been neglected and have placed emphasis on rectifying this. They have identified in their internal systems a lot of decommissioning work that has been completed that has not been revised in the registry. They are now ensuring the retailer is aware that equipment has been removed so that status changes can be made inactive, and the subsequent step can be taken by Powerco to change the status to DECR. The auditor was able to see 687 DECR status events in the registry occurring since 1/1/2018.

Powerco had identified an issue on the electricity side of their business relating to duplicate addresses and were applying the learnings to the gas side of their business. There had been a system issue relating to duplicate addresses which had now been fixed, and they were working a list of known instances to ensure they were correct in their system and the registry.

An extract of all distributor registry fields from Powerco's system was compared with the Powerco entries in the registry. For the active ICPs no differences were found between the two systems for gas gate, network pressure, load shedding or loss factor. There were only trivial differences between altitude for the two systems. There were however differences in the network price category field, but these transpired to be differences where the Powerco system had a price code which was withheld on the registry by using DOA. The alignment between the systems was therefore found to be well controlled.

Load Shedding

There is a 12 monthly review undertaken of load shedding categories. If an ICP should be considered for a change of category it is first discussed with the retailer in case they have additional information. Shuffling ICPs between categories would not be helpful. It was clarified during the audit that the distributor does have the final say on the correct load shedding category as they have the regulatory responsibility for completing the field accurately.

The active Powerco ICPs were reviewed for unusual coincidences of load shedding/network pricing code/ allocation group. Another list of outliers (unusual combinations of load shedding and meter price codes) was also reviewed. Both reviews identified potential incorrect load shedding categories.

It was also identified that some ICPs with a load shedding category of DOM (domestic) could in fact be businesses, based on the fact they had atypical pricing and meters, together with additional information in the Powerco system comments field. It was thought Powerco may have been too reliant on information from retailers in deciding the DOM category and should become more active in deciding this registry field. Subsequent review by Powerco found 19

DOM ICPs to be recategorized as load shedding category 4 and 121 DOM ICPs to be recategorized as load shedding category 6.

> **ALLEGED BREACH**: 134 ICPs were in the wrong load shedding categories including some categorised as domestic that appear to be commercial. (r58.1)
>
> **RECOMMENDATION**: That Powerco improve the integrity checks in their tool for reviewing load shedding categories, particularly with regard to ensuring the DOM code is used accurately.

Further alleged breach detail can be found in appendix B.

Powerco implemented this recommendation immediately after the on-site audit, prior to the completion of this report.

Powerco have notified the retailers of these proposed new load shedding categories and will implement them on 1 February 2022, unless retailers revert with additional relevant information.

Altitude

A review of active Powerco ICPs looked for altitudes that were outliers compared to other ICPs at the same gate, these included both new and established ICPs. Of these outliers 6 ICPs were found to have incorrect altitudes that required correction or further investigation (some were the result of incorrect addresses).

> **ALLEGED BREACH**: 6 ICPs were found to have incorrect altitudes and/or addresses (r58.1)

Further alleged breach detail can be found in appendix B.

Network pressure

Each network pressure group was reviewed by gas gate to look for outliers. The 49 outliers, a mixture of new and established ICPs, were then further reviewed.

Powerco validated the registry network pressures for each outlier ICP with their GIS system. This identified 16 ICPs with network pressures that appear to have populated into CWMS incorrectly from GIS during the initial set-up or they have subsequently changed in GIS and the registry has not been updated. Powerco will arrange for these network pressures to be updated on the registry.

> **ALLEGED BREACH**: 16 ICPs were found to have incorrect network pressure (r58.1)

Detailed information can be found in appendix B

An additional sample of 30 active ICPs selected at random had the following fields verified.

- Network pressure
- Altitude
- Gas gate
- Load shedding

- Network price category

No problems were found for any of the selected ICPs.

4.4 Notices of gas gate creation/decommissioning

Rule 45 requires that distributors notify the GIC, registry and allocation agent 20 business days prior to a gas gate creation or decommissioning taking effect.

There had been no Powerco gas gates created or decommissioned since the last audit.

4.5 Publishing of network price category codes

It was confirmed that the Powerco price category codes are published on the Powerco website. This was viewed on 18 October 2021 and the prices from 1 October 2021 were available.

4.6 Disclosure of ICP information

Powerco withholds network pricing information from the registry at a number of larger sites for reasons of commercial sensitivity.

Powerco have a portal through which they receive pricing requests for DOA ICPs. These can be either distributor or meter owner pricing requests. The last 25 requests were reviewed, and all were found to have been responded to within 1 business day demonstrating compliance with r50.

4.7 Loss factor codes

Powerco had not added or deleted any loss factor codes since the last audit, so there was no requirement to notify under rule 48. The published loss factors were viewed on the Powerco website in the pricing brochure.

5. Obligations as Meter Owner

Powerco is the meter owner for 73,000 meters, all on the Powerco network, 76 of these are TOU meters. They do not have any meters on other distributor networks.

The focus of this audit is predominantly the switching rules, but it extends to the Gas (Downstream Reconciliation) rules with respect to Powerco as meter owner, in particular to rules 26.5 and 27. These rules specifically require meter owners to support compliance with

and verify accuracy in accordance with NZS5259. Compliance with this standard is therefore included within the scope of this audit.

The same CWMS is used for new ICP meters as for new distribution connections. Powerco offers clients the opportunity to get their meter from other suppliers, but almost all choose to have a Powerco meter. There is therefore a strong alignment of new ICPs for distribution also having a Powerco meter and the same system is used to gather information for both distribution and meter owner obligations.

As a part of the new ICP process, applications for connections detail the expected appliances. Powerco therefore has an expectation of what the load at the ICP is likely to be, which in turn enables them to select an appropriate meter. They apply a diversity factor to the information supplied when there are multiple appliances. This allows for the fact that it is unlikely all appliances will be run at maximum at the same time.

Post installation registry fields are populated in the CWMS system by the field service provider and then sent to the registry. The system checks for duplicate meters but otherwise no validation occurs at this stage. Once the new ICP is populated in the registry it will be included in the next weeks LIS download for internal integrity checks.

5.1 Compliance with NZS5259

Powerco has a suite of 7 standards for executing their responsibilities as meter owner. They are designed to ensure compliance with NZS5259 as well as other compliance obligations.

The suite of standards was provided to the auditor for review and consisted of the following:

- Part 1 – General
- Part 2 – Design
- Part 3 – Materials and Components
- Part 4 – Fabricate and Construct
- Part 5 – Test and Commission
- Part 6 – Operations and Maintenance
- Part 7 – Decommission

Powerco also provided an Equipment Guideline for Gas Measurement System (GMS) meter kits, and a Time of Use and Telemetry Standard.

These standards are based on, and meet, the requirements of Gas Measurement Standard NZS 5259:2015, in relation to accuracy, equipment selection, installation, operation, maintenance and testing. They also meet the requirements of Gas Distribution Standards AS/NZS 4645 Part 1 & 2, and NZS7901 – in relation to risk management, public and worker safety, protection of property, network operational safety, and reliability.

The design standard includes the detail relating to meter accuracy, ranges and capacities to ensure compliance with NZS5259 accuracy requirements. Part 6 upholds the maintenance requirements of NZS5259.

Powerco use one brand/series of meters and have a table of which to use in which conditions and recommends the correct regulator and OPSO valve/connector. The position of equipment is also considered for both accuracy and safety. Going forwards Powerco has a plan to barcode equipment to prevent the need for data entry and the associated human error.

GMS with capacity ≤60scmh are constructed to meet "Equipment Guideline" for GMS Meter Kits ≤60scmh. This guideline is based on the design and material and components sections of the GMS standard, with meter kit (meter size, inlet pressure, pressure regulator, pressure protection and filtration equipment) matched against different inlet and outlet pressures, and meter capacity.

GMS with capacity >60scmh are individually designed by the engineering team using criteria set out in "Design", "Material and Components", and "Fabricate and Construct" sections of the GMS suite of standards.

Where Time of Use (TOU) is required – either for a new design, retrofitting to an existing site, or replacement of existing TOU – Design and equipment specifications set out in "TOU and Telemetry Standard" are used to select TOU equipment.

Larger sites are referred by the new connections team for discussion/review by commercial and engineering colleagues where the likely maximum load will be discussed. Occasionally the expected load is sufficient to require a bespoke design. Engineering use a calculation tool to check capacity and an engineering design is drawn up, an Excel based calculator template is used to work out the correct pipe and meter size. All components are selected to ensure they are accurate to NZS5259 standards for the expected load. Consideration is also given to the whole design, (pipe lengths/diameters, component locations and interactions) to ensure the overall design will also be within NZS5259 accuracy standards. An example was supplied to the auditor to illustrate the design process and evidence the compliance signoff.

Powerco did note they were aware they do not technically comply with NZS5259 with regard to some non-TOU meters which have passed their certification date. NZS5259 requires that the ongoing performance of meters and conversion devices shall be monitored for accuracy. For small meters testing intervals can be determined by statistical analysis. Powerco however have suspended statistical sampling on the current suite of meters. This is because Powerco is about to commence a meter replacement program in mid-2022 replacing existing non-TOU meters with the equivalent advanced metering option.

> **ALLEGED BREACH:** The statistical sampling of the smaller meters required by NZS 5259, has been suspended (Gas (Downstream Reconciliation) r 27.1)
>
> **OBSERVATION:** Powerco have suspended the statistical sampling of smaller meters as required by NZS5259, given the expected rollout of smart meters in 2022. If there is any significant delay to the smart metering project this suspension will need to be reconsidered.

5.1.2 Documentation

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

NZS5259 section 2 sets out performance requirements.

- Records shall be kept of the suitability of the GMS components for the life of the asset (NZS5259 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 2.8.3)

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

- Records shall be kept to monitor 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 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 3.7.2)
- Procedures for selection, installation and maintenance of GMSs shall be documented. (NZS5259 3.7.3)

As a part of the audit a review was undertaken of the requirements of NZ5259 documentation for a small sample of ICPs. See the table below for a summary of the review. Not all aspects of compliance could be demonstrated by documentation specific to the sample ICPs.

Although Powerco believes they are compliant with NZ5259 in regard to the requirements around documentation/records, this was in some instances difficult to demonstrate. Not all contractors send the relevant documentation to Powerco. Also, Powerco does not currently have an effective document management system to store these records which makes it difficult to locate the relevant documentation in a timely manner.

Therefore, although Powerco has a comprehensive set of standards that should ensure compliance with NZS5259 it was not possible for all aspects to confirm that compliance by reference to the relevant documentation. Information is held in different places including with service providers (field and metering services).

Powerco commented on this issue as follows:

> *Powerco is confident GMS and TOU installations are compliant with NZS5259. However, due to a combination of different processes and systems used to manage gas measurement systems, gathering all relevant documentation proving compliance, is difficult, or almost impossible, within reasonable time constraints. To improve this situation, a standard system is required, potentially using the ICP number as the common file reference.*
>
> **RECOMMENDATION:** That Powerco considers how it stores documentation to demonstrate compliance with NZS5259.

Summary of documentation available for sample of ICPs

		NZS5259 2.8.2	NZS5259 2.8.3				NZS5259 3.7.1	NZS5259 3.7.2	
	TOU:	Records kept of the suitability of the GMS components	Documentation shall be kept of the acceptance testing, installation, operating conditions, and maintenance of the GMS components for the duration of its service				Records shall be kept to monitor the performance and maintenance of each GMS component … and shall include the results of all acceptance and as-found tests and the date and details of all maintenance.	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.	
Number			Acceptance testing	Installation	Operating conditions	Maintenance of the GMS components			Comment
1	0002319601QT1D7	Scope of works, Design sheet	Cert of Calibration (GMM), Calibration Cert (TOU)	CWMS screenshots (WCN form not supplied)	Provided when WCN submitted via CWMS	Covered in 'Operatons and Maintanence' standard	Maintenance Inspection Results	Maintenance Inspection Results	Equipment replaced (correction) and installation of TOU, yet to go through acceptance testing. Compliance confirmed as only TOU installation and not meter replacement.
2	1000580385PG112	Scope of works, Design sheet	Declaration of conformity	Works completion notice (WCN)	Provided when WCN submitted via CWMS	Covered in 'Operatons and Maintanence' standard			New build and as such no maintanence records available yet.
3	1000541019PGBF8	Ohakea GMS Reconfiguration scope of works	Covered in 'Test and Commission' standard		Covered in 'Operatons and Maintanence' standard	Covered in 'Operatons and Maintanence' standard	Maintenance Inspection Results	Ohakea GMS Reconfiguration	We are confident that acceptance testing was done and the relevant paperwork is available but we are unable to readily locate this
4	0004226810NG44B		Covered in 'Test and Commission' standard		Covered in 'Operatons and Maintanence' standard	Covered in 'Operatons and Maintanence' standard	Maintenance Inspection Results	Maintenance Inspection Results	We are confident that acceptance testing was done and the relevant paperwork is available but we are unable to readily locate this
5	0004206692NGE42	Design sheet (Huia pool GMS 0004206692NGE42)	Test certs (4522612.pdf, 4522612_DB.pdf)	WCN	Provided when WCN submitted via CWMS	Covered in 'Operatons and Maintanence' standard	Maintenance Inspection Results	Maintenance Inspection Results	Design and acceptance testing paperwork to be sourced
	Non TOU:								
6	1000594554PG872	Scope of works	Covered in 'Test and Commission' standard	WCN	Provided when WCN submitted via CWMS	Covered in 'Operatons and Maintanence' standard			New build, no maintanence records yet.
7	1000595049PG921	Covered in request for connection	Covered in 'Test and Commission' standard	WCN	Provided when WCN submitted via CWMS	Covered in 'Operatons and Maintanence' standard			New build, no maintanence records yet.
8	0001001051PG7F9		Covered in 'Test and Commission' standard	no WCN (historical installation)	Provided when WCN submitted via CWMS	Covered in 'Operatons and Maintanence' standard	Maintenance Inspection Results	Maintenance Inspection Results	We believe we are non-compliant here as we have not be doing statistical sampling of the relevant meters due to their pending

5.1.3 Operation and maintenance

Powerco demonstrated their meter maintenance programme using SAP. Records of maintenance were reviewed (diaphragm maintenance, rotary meter maintenance, removals and installs). The auditor sighted some original dockets used for registry entry. Powerco also supplied the six-month maintenance program for G16 plus meters as evidence of the implementation of the maintenance programme. As a minimum they do a GMS site visit every 5 years.

Retailer queries/requests come in several forms.

- The retailer logs a job with the network operations centre (e.g. a disputed device). This is then allocated to a fault person and despatched to a laboratory for testing.
- Retailers also send in queries via email which are responded to in real time (they are not specifically logged in one place)
- If the retailer enquiry requires field work it is logged into CWMS, which results in a work order via SAP.
- Requests can also come in through the Commercial team e.g. an upgrade to a TOU site

There wasn't one place where queries could be logged, or the timeliness of responses monitored. This also means emerging trends might not be apparent as the information is so disparate, held by different parts of the business.

> **RECOMMENDATION:** That Powerco consider how they record retailer metering queries. The logging of these in one central place would enable monitoring, to assure them of timely responses and to identify emerging trends/issues.

TOU data is supplied to retailers for billing. A sample of CSV files were supplied to the auditor. No issues arose. Powerco do not supply non-TOU data to retailers, they are read by meter readers on behalf of the retailers.

5.1.4 Testing

Copies of acceptance and as found test results for the last 4 months were supplied as evidence of routine testing activity.

5.2 Provision of metering price codes

Powerco supplied a copy of their meter pricing schedule, which is sent to all retailers as part of the yearly pricing updates and is also available on request.

5.3 Disclosure of ICP information

Powerco withholds meter pricing information from the registry at a number of larger sites for reasons of commercial sensitivity.

Powerco have a portal through which they receive pricing requests for DOA ICPs. These can be either distributor or meter owner pricing requests. The last 25 requests were reviewed, and all were found to have been responded to within 1 business day demonstrating compliance with r50.

5.4 Registry information for new ICPs

As described in the distributor section above, the Powerco CWMS system is directly accessed by the field service provider. The FSP populates it with the relevant information regarding the physical connection including the metering equipment. It is possible to enter the information piecemeal over a period or all in one go. As soon as all the information is provided it means that confirmation that the meter has been installed has occurred. The system automatically pushes the relevant data to the registry overnight, including the registry information relating to the meter owner responsibilities. The process is therefore designed to update the registry within 1 day.

A sample of 25 new ICPs created since 1/1/2018 were reviewed for compliance with rule 56 (new ICP information populated within 2 business days of confirmation metering has been installed and information has been supplied by the retailer). The 'submit works complete date' was compared to the network registry event date for the population of the meter owner data on the registry. In all cases registry population was done within 1 business day, except for 1 ICP where the initial registry upload was rejected by the registry. It was nonetheless corrected and resubmitted within the required 2 business days. The process was therefore confirmed as compliant with the regulatory timeframe.

A sample of new ICPs were reviewed for accuracy of the meter owner registry fields (3 TOU and 25 non-TOU) against all the available CWMS information and paperwork. It was also confirmed that the field service provider had installed the expected meter by confirmation back to the job details to confirm compliance with the Powerco standards for ensuring appropriately sized meters are installed. No issues arose.

5.5 Maintenance of ICP information

An analysis of registry ICPs found some outliers where the meter pricing code was not as expected, compared with the network pricing code and load shedding category. These were further reviewed, and the meter pricing codes were found to accurately reflect what Powerco were charging, although in some instances Powerco were choosing to charge customers less to prevent any pricing shocks from upgraded metering.

During the audit a list of 12 ICPs were noted as having a status of ACTC or ACTV while the meter was noted as being 'REMOVED'. These were reviewed further. The following alleged breaches arose from the review.

> **ALLEGED BREACH**: Powerco had incorrectly shown the meter as removed in the registry. This has now been rectified. (rule 58.1)

ALLEGED BREACH: Incorrect status by retailer, the ICP was shown as active after the meter had been removed (rule 58.1):

- 3 ICPs for GENG
- 3 ICPs for CTCT
- 1 ICP for MEEN

See appendix B for further detail.

As a part of the audit the data in Powerco's CWMS system was reviewed against the registry for accuracy in the meter owner fields. A list of records that did not align were further reviewed but were found either to be timing differences between when the lists were pulled that had subsequently become aligned; or were meter code differences where DOA was used in the registry, but the actual meter code appeared in Powerco's system; decommissioned ICPs or TOU meters with N/A in the applicable registry field. There were therefore no issues arising.

6 Breach Allegations

All breach allegations are made under the Gas (Switching Arrangements) Rules 2008 unless otherwise stated.

Section	Summary of issue	Rules potentially breached
4.2	Of 62 new connections reviewed, 2 were found not to have had an ICP identifier assigned within 3 business days and the retailer not to have been informed	r51.2
4.2	6 new ICPs had been incorrectly assigned to the wrong gas gate	r58.1
4.3	134 ICPs were in the wrong load shedding categories, including some categorised as domestic that appear to be commercial.	r58.1
4.3	6 ICPs were found to have incorrect altitudes and/or addresses	r58.1
4.3	16 ICPs were found to have incorrect network pressure	r58.1
5.1	The statistical sampling of their smaller meters required by NZS5259, has been suspended	Gas (Downstream Reconciliation) r 27.1

5.5	Powerco had incorrectly shown a meter as removed in the registry.	r58.1
5.5	Incorrect status by retailer, the ICP was shown as active after the meter had been removed. • 3 ICPs for GENG • 3 ICPs for CTCT • 1 ICP for MEEN	r58.1

7 Conclusion

In general, the auditor noted that significant process improvements had been made, particularly in the frequency of alignment checks between Powerco systems and the registry, as well as the introduction of new data integrity checks and work to progress decommissioned ICPs. However, documentation to illustrate metering compliance was difficult to locate.

The summary of report findings shows that the Powerco control environment, for the 15 areas evaluated, was found to be: "effective" for 13 areas; "not adequate" for 1 area; "not applicable" for 1 area.

7 breach allegations are made in relation to Powerco regarding the non-compliant areas and are summarised in the above table. There is also an alleged breach arising for 3 retailers. The following observation and recommendations were also made:

> **RECOMMENDATION**: That Powerco improve the integrity checks in their tool for reviewing load shedding categories, particularly with regard to ensuring the DOM code is used accurately.
>
> This recommendation has already been implemented.
>
> **OBSERVATION:** Powerco have suspended the statistical sampling of smaller meters as required by NZS5259, given the expected rollout of smart meters in 2022. If there is any significant delay to the smart metering project this suspension will need to be reconsidered.
>
> **RECOMMENDATION:** That Powerco considers how it stores documentation to demonstrate compliance with NZS5259.
>
> **RECOMMENDATION:** That Powerco consider how they record retailer metering queries. The logging of these in one central place would enable monitoring, to assure them of timely responses and to help identify emerging trends/issues.

Appendix A – Control Rating Definitions

Control Rating	Definition
Control environment is not adequate	Operating controls designed to mitigate key risks are not applied, or are ineffective, or do not exist. Controls designed to ensure compliance are not applied, or are ineffective, or do not exist. Efficiency/effectiveness of many key processes requires improvement.
Control environment is adequate	Operating controls designed to mitigate key risks are not consistently applied or are not fully effective. Controls designed to ensure compliance are not consistently applied or are not fully effective. Efficiency/effectiveness of some key processes requires improvement.
Control environment is effective	Isolated exceptions identified when testing the effectiveness of operating controls to mitigate key risks. Isolated exceptions identified when testing the effectiveness of controls to ensure compliance. Isolated exceptions where efficiency/effectiveness of key processes could be enhanced.

Appendix B – Alleged Breach Details

ICP identifier not assigned

ICP identifier not created within 3 business days and retailer not notified (51.2)

Job ID	Date Application Created	Work Type	Date confirm application	Days Between
62750	23/06/2021	New Connection	5/07/2021	12
63466	12/08/2021	New Connection	19/08/2021	7

Incorrect gas gates

ICP Identifier	GIS GAS GATE ID	Registry Gas Gate Code
1000595175PG4C3	Palmerston North 1070272	ASH34301
1000579330PG7D3	Tawa A 1110077	BEL24510
1000592745PG15D	Waitangirua 1002532	TWA35610
1000585866PG346	Waitangirua 1002532	TWA35610
1000585866PG346	Waitangirua 1002532	TWA35610
1000579330PG7D3	Tawa A 1110077	BEL24510

Load Shedding

ICP	Existing Load Shedding Category	Proposed Load Shedding Category	Comment
0001586031QT421	6	4	To be updated in annual review
0001632141QTC45	6	4	To be updated in annual review
0001677421QTA05	6	4	To be updated in annual review
0001680170PG00F	6	4	To be updated in annual review
0001711811PG8BB	6	4	To be updated in annual review
0001787441QT405	6	4	To be updated in annual review
0001829231QT70C	6	4	To be updated in annual review
0001834271QT768	6	4	To be updated in annual review
0001849021QT5FE	6	4	To be updated in annual review
0002044751QT53B	6	n/a	Decommissioned
0002184401QTEEC	6	4	To be updated in annual review
0002227281QT51C	6	4	To be updated in annual review
0002235561QTB05	6	4	To be updated in annual review
0002244891QT503	6	4	To be updated in annual review
0002264451QT72D	6	4	To be updated in annual review

0002273421QTEF1	6	4	To be updated in annual review
0002282011QT134	6	4	To be updated in annual review
0002295571QT740	6	4	To be updated in annual review
0002296991QT316	6	4	To be updated in annual review
0002306101QTF54	6	4	To be updated in annual review
0002317131QT1ED	6	4	To be updated in annual review
0002317641QTBB2	6	n/a	Back within 10% threshold (265.4 GJ), no change required.
0002317761QTFE3	6	4	To be updated in annual review
0002319341QT677	6	4	To be updated in annual review
0002333481QT917	6	4	To be updated in annual review
0002378808QTA75	6	4	To be updated in annual review
0002379558QT6D5	6	4	To be updated in annual review
0002380239QT35E	6	4	To be updated in annual review
0004200346NG2CF	6	4	To be updated in annual review
0004202087NG926	6	4	To be updated in annual review
0004202390NGD42	6	4	To be updated in annual review
0004209852NG6C6	6	4	To be updated in annual review
0004210904NG204	6	4	To be updated in annual review
0004212858NG356	6	4	To be updated in annual review
0004216247NGAAF	6	4	To be updated in annual review
0004216869NGE6B	6	4	To be updated in annual review
0004216899NGE7C	6	4	To be updated in annual review
0004217444NG1C9	6	4	To be updated in annual review
0004223982NG50D	6	4	To be updated in annual review
0004224791NG10B	6	4	To be updated in annual review
0011002468PG23A	6	4	To be updated in annual review
0054230424PG74B	6	4	To be updated in annual review
0075003296PGBC1	6	4	To be updated in annual review
1000496839PGAFD	6	4	To be updated in annual review
1000503002PG754	6	4	To be updated in annual review
1000503559PG48D	6	4	To be updated in annual review
1000510242PG5F7	6	4	To be updated in annual review
1000515398PG400	6	4	To be updated in annual review
1000516619PGAEA	6	4	To be updated in annual review
1000518467PGEEB	6	4	To be updated in annual review
1000520678PGDB3	6	4	To be updated in annual review
1000523370PG842	6	4	To be updated in annual review
1000525031PG061	6	4	To be updated in annual review

1000541121PG710	6	4	To be updated in annual review
1000543821PGD59	6	4	To be updated in annual review
1000543966PGB32	6	4	To be updated in annual review
1000551391PG744	6	4	To be updated in annual review
1000555625PG779	6	4	To be updated in annual review
1000558233PGA7A	6	4	To be updated in annual review
1000558671PG45B	6	4	To be updated in annual review
1000573487PG9E9	6	4	To be updated in annual review
1000575768PGA4E	6	4	To be updated in annual review
1000578484PGAC9	6	4	To be updated in annual review
1000578640PG62B	6	4	To be updated in annual review
1000580827PGA86	6	4	To be updated in annual review
1000581099PGA02	6	4	To be updated in annual review
1000581238PG45F	6	4	To be updated in annual review
1000581860PG449	6	4	To be updated in annual review
1000582235PG9E4	6	4	To be updated in annual review
1000582289PG848	6	4	To be updated in annual review
1000582400PG555	6	4	To be updated in annual review
1000582643PG137	6	4	To be updated in annual review
1000583142PG3D0	6	4	To be updated in annual review
1000583335PG140	6	4	To be updated in annual review
1000583544PGE5E	6	4	To be updated in annual review
1000583992PGE9F	6	4	To be updated in annual review
1000585356PG7B0	6	4	To be updated in annual review
1000585602PGBB7	6	4	To be updated in annual review
1000586166PG8AF	6	4	To be updated in annual review
1000586233PGEEB	6	4	To be updated in annual review
1000586413PG5B8	6		212GJ, LS correct
1000586931PGD60	6	4	To be updated in annual review
1000587121PG660	6	4	To be updated in annual review
1000587144PG4DF	6	4	To be updated in annual review
1000587973PGEE0	6		430 GJ to be updated in annual review
1000588126PG2CA	6	4	To be updated in annual review
1000588282PG8DC	6	4	To be updated in annual review
1000589981PG6B2	6	n/a	The load shedding category has changed to 7 (critical care designation). Updated 28/10/2021 on direction from GIC.
1000592808PG3AC	6	n/a	170GJ so far, LS correct
1000593286PGED7	6	n/a	273GJ in 9 months, to be updated in annual review
1000594769PGAD6	6	n/a	268GJ in 7 months, to be updated in annual review

1000595067PG7EF	6	n/a	171GJ in 8 months, LS correct (may be updated in next year's review depending on consumption)
1000595378PG19F	6	n/a	182GJ in 5 months, LS correct (may be updated in next year's review depending on consumption)
1000597849PGA6C	6	n/a	New ICP, 11GJ in 2 months, LS correct
0001372874PG303	4	6	To be updated in annual review
0001393385QTA3C	4	6	To be updated in annual review
0001412412QTC9D	4	6	To be updated in annual review
0001694641QT06F	4	6	To be updated in annual review
0001788421QT295	4	6	To be updated in annual review
0002038101QTA0C	4	6	To be updated in annual review
0002090531QTA1D	4	6	To be updated in annual review
0002103351QT2A3	4	6	To be updated in annual review
0002227761QTAA3	4	6	To be updated in annual review
0002244531QT814	4	6	To be updated in annual review
0002256081QT402	4	6	To be updated in annual review
0002293091QTD3F	4	n/a	Inactive, not using any gas
0002309301QTC33	4	6	To be updated in annual review
0002315581QTC1E	4	6	To be updated in annual review
0002317181QT35F	4	6	To be updated in annual review
0002318541QT1D1	4	6	To be updated in annual review
0002377256QT28C	4	6	To be updated in annual review
0004208608NGBF4	4	6	To be updated in annual review
0004209960NG8BF	4	6	To be updated in annual review
0004224730NG551	4	6	To be updated in annual review
0004224772NG771	4	6	To be updated in annual review
0004224784NG6E9	4	n/a	Fell back within the +/-10% in the 12 months used for the updates (238.7 GJ). To remain as is.
0004227757NG58B	4	6	To be updated in annual review
1000504618PGD0E	4	6	To be updated in annual review
1000504702PGC36	4	n/a	Fell back within the +/-10% in the 12 months used for the updates (253.9 GJ). To remain as is.
1000504705PG1FC	4	n/a	Fell back within the +/-10% in the 12 months used for the updates (234 GJ). To remain as is.
1000521225PG741	4	6	To be updated in annual review
1000522051PGBF1	4	6	To be updated in annual review
1000528892PGE93	4	6	To be updated in annual review
1000541759PG65F	4	6	To be updated in annual review
1000549351PG54A	4	6	To be updated in annual review
1000554387PGB46	4	3	To be updated in annual review
1000587637PG240	4	6	To be updated in annual review

1000591254PG050	4	n/a	No revision consumption yet
1000591718PG4EE	4	n/a	No revision consumption yet, but meter has been downgraded - move to 6
1000592868PGC5C	4	n/a	New ICP, very little consumption so far. Move to 6?
1000593014PGBB2	4	n/a	No revision consumption yet
1000594544PG2DF	4	n/a	New ICP, very little consumption so far. Move to 6?
1000596438PGED8	4	n/a	New ICP, very little consumption so far. Move to 6?
1000598165PG44E	4	n/a	No revision consumption yet

Altitudes

ICP Identifier	ICP Creation Date	ICP Altitude	Findings
0001412231QTB0E	1/07/2008	0	To be corrected, should be ~20.
0001808451QT697	1/07/2008	0	Looks incorrect, will investigate and correct (if appropriate).
0011002400PGFDE	1/07/2008	197	To confirm address. Altitude consistent with 1 Miro St Inglewood but address may have been incorrectly entered.
1000511387PG7F3	1/07/2008	0	To be corrected, should be ~80. Run addr valid/check GIS
0088503171PG203	1/07/2008	200	To confirm address. Altitude consistent with 11 Elliot St Inglewood (rather than NPL).
1000599966PG923	1/07/2021	1	To be corrected, should be ~25. Run addr validation/check GIS

Network Pressure

ICP Identifier	ICP Creation Date	Network Pressure on registry	Network Operating Pressure from GIS	Network Pressure midpoint	GIS matches Registry
0044105322PG1F5	1/07/2008	4	NO PRESSURE	#N/A	#N/A
0075003355PG9EA	1/07/2008	4	MP 210-420kPa	315	No
0075003504PGBA1	1/07/2008	4	MP 210-420kPa	315	No
1000572476PG41B	17/04/2018	16	MP 210-420kPa	315	No
1000594983PG4F6	8/03/2021	16	<Null>	#N/A	#N/A
1000564986PGC25	4/07/2017	118	MP 210-420kPa	315	No
1000592361PG103	17/02/2021	118	MP 210-420kPa	315	No
0002152401QT77D	1/07/2008	315	HLP 7-25kPa	16	No
0002172601QT4B7	1/07/2008	315	HLP 7-25kPa	16	No
1000583231PG94E	8/07/2021	315	#N/A	#N/A	#N/A
1000585948PG48C	25/10/2019	315	LMP 25-210kPa	118	No
1000540425PG2BF	13/08/2012	560	MP 210-420kPa	315	No
0001799461QT971	1/07/2008	560	MP 210-420kPa	315	No

0001846781QTB83	1/07/2008	560	MP 210-420kPa	315	No
0002051071QT8AD	1/07/2008	560	MP 210-420kPa	315	No
0001752391QTD34	1/07/2008	560	MP 210-420kPa	315	No

Incorrect status, ACTC or ACTV but meters have been removed.

0001113620PG72A Meter incorrectly recorded as removed instead of pressure change. POCO

0001881108PGCF0 Retailer had status as ACTV even though meter has been removed. CTCT

0002322861QT6E0 Retailer had status of ACTV even though meter has been removed. CTCT

0004010439NG777 Retailer had status of ACTV even though meter has been removed. GENG

0004207581NGA8C Retailer had status of ACTV even though meter has been removed. GENG

0004226437NG8D8 Retailer had status as ACTV even though the meter has been removed. GENG

0046124800PGA34 Retailer had status as ACTV even though the meter has been removed. MEEN

0054229601PG917 Retailer had status as ACTV even though there is no meter. CTCT

Appendix C – Comment from Powerco

Powerco is committed to improving our processes and systems to ensure continued compliance with the GIC rules. As such, Powerco has dedicated significant resources since the previous audit to resolve system issues, review processes, and resolve historic data.

It is very pleasing to see that this investment has resulted in numerous improved audit outcomes both in the number of non-compliances and in the assessed control ratings with the number of non-compliances decreasing from a total of 12 in 2017 to only three in 2021 and the number of areas with 'effective' controls increasing from six in 2017 to 13 in 2021.

We appreciate that the occasional non-compliance will unfortunately occur due to the nature of the industry and the sheer number of updates that are processed. However, we are encouraged that this audit shows that we have effective controls in place across the vast majority (13 out of 15) of the areas audited which should ensure that the number of non-compliances are limited.

We agree with the three recommendations identified by the auditor and (as noted) we have already implemented the improved integrity checks for the annual load shedding review, and we have also started recording retailer metering queries in a separate folder location. We will also give due consideration regarding how we store documentation to improve our ability to demonstrate compliance with NZS5259.