

VERITEK

Gas Distributor Audit Report

For

Powerco Limited



Prepared by: Steve Woods – Veritek Ltd

Date of Audit: 17/10/2017

Date Audit Report Complete: 19/01/2018

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 **Powerco Ltd (Powerco)** in terms of compliance with these rules.

The audit was conducted in accordance with terms of reference prepared by GIC.

The summary of report findings in the table below shows that Powerco's control environment is "effective" for three of the areas evaluated and "adequate" for eight areas.

Two of the eleven areas evaluated were found to be compliant. Breach allegations are made in relation to the remaining areas. They are summarised 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- Powerco's telephone number is out of date in the registry participant information.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.

As a result of this performance audit I recommend Powerco continues to improve the validation processes to include mis-matches within the data.

Some discussion was held regarding the best information to use for determining load shedding categories and how often updates should occur for ICPs where the consumption may regularly change between categories. I do not believe the allocation group should be relied upon, I think evaluation of consumption information from GEIP files is the best source of data. This is an area where distributors could benefit from a guideline note from GIC to clarify expectations, including the consumption period to use.

With regard to registry updates, I have chosen 30 days as the threshold over which the “as soon as practicable” requirement has not been met. The 30 days is an arbitrary number chosen to provide some consistency across the audit process. I believe a rule change should be considered to provide a specific timeframe for registry population. My suggested approach is to set achievable timeframes recognising that exceptions can occur and in some cases there is reliance on the actions of another participant before the registry can be populated. Changes to decommissioned status are a good example where the distributor is reliant on the retailer to change their status first. I suggest a two tiered rule structure, for example “90% of updates within 5 business days and the remaining 10% within 10 business days”.

The matters raised are shown in the tables below.

Summary of Report Findings

Issue	Section	Control Rating (Refer to Appendix 1 for definitions)	Compliance Rating	Comments
General obligations	2	Adequate	Not compliant	Powerco's telephone number is out of date in the registry participant information. All other details are correct. There were no examples of unreasonable actions or improper use of the registry.
New connections	3	Adequate	Not compliant	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.
Network pressure	4.1	Adequate	Not compliant	Some inaccurate network pressures identified
ICP altitude	4.2	Effective	Not compliant	Only one material altitude error found
Gas gate	4.3	Adequate	Not compliant	173 ICPs with incorrect gas gates
Load shedding category	4.4	Adequate	Not compliant	534 load shedding category discrepancies
Maximum hourly quantity	4.5	Effective	Compliant	This field is not used to determine network charges and is not required to be populated
Physical address	4.6	Adequate	Not compliant	1,479 ICPs with duplicate or missing address information

Issue	Section	Control Rating (Refer to Appendix 1 for definitions)	Compliance Rating	Comments
Decommissioned status	4.7	Effective	Compliant	The decommissioned status is correctly used
Connection statuses	4.8	Adequate	Not compliant	Incorrect event dates for 715 ICPs
Registry validation and correction	4.9	Adequate	Not compliant	Not all registry updates made as soon as practicable.
Creation and decommissioning of gas gates	5	No examples of changes	No examples of changes	
Management of network price category codes	6	No examples of changes	No examples of changes	
Management of loss factor codes	7	No examples of changes	No examples of changes	
Disclosure on application	8	No examples of changes	No examples of changes	

Persons Involved in This Audit

Auditor:

Steve Woods
Veritek Limited

Powerco personnel assisting in this audit were.

Name	Title
Ana Zangirolami	Billing and Reconciliation Manager
Nikos Fairburn	Performance, Quality and Compliance Coordinator
Kacey Graham	Customer Team Manager
Karly Johnson	Network Connection and Data Team Leader
Michael Grace	Gas Customer and Market Analyst
Michael Binney	Gas Pricing and Revenue Manager
Emma Gibson	Gas Account Manager

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1. Pre-Audit and Operational Infrastructure Information

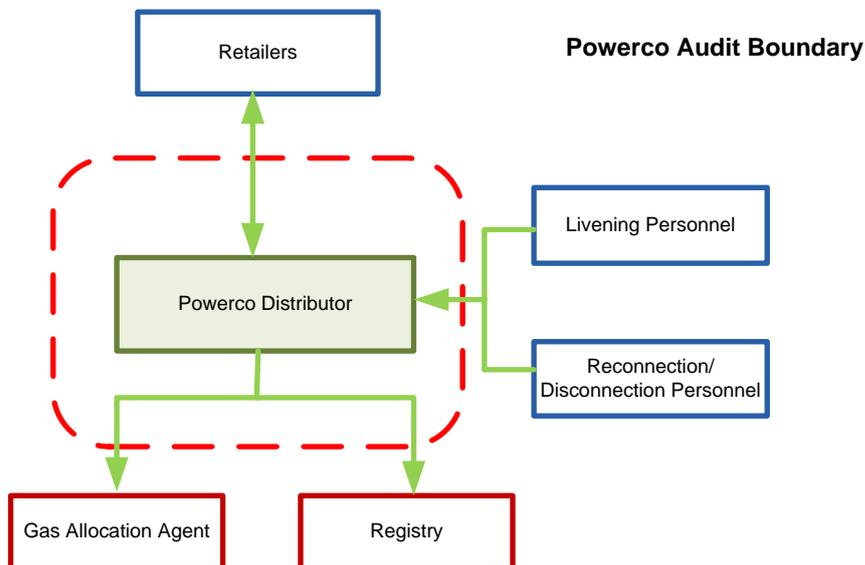
1.1 Scope of Audit

The purpose of this audit is to assess the systems, processes and performance of Powerco in terms of compliance with these rules.

The audit was conducted in accordance with terms of reference prepared by GIC.

The audit was carried out on 17 October 2017 at Powerco's office in Wellington.

The scope of the audit includes the distributor responsibilities only, as shown in the diagram below.



1.2 Audit Approach

As mentioned in Section 1.1 the purpose of this audit is to assess the performance of Powerco 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 Powerco 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 In statistics, a result is considered statistically significant if it is unlikely to have occurred by chance. (Wikipedia)

1.3 General Compliance

GIC confirmed there are no prior historical breach allegations for Powerco in relation to the scope of this audit.

1.4 Provision of Information to the Auditor (Rule 91)

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

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

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

1.5 Breach allegations

As noted in the Summary of Report Findings, this audit identified non-compliance in nine sections. The following breach allegations are made in relation to these matters.

Breach Allegation	Rules	Section in this report
Powerco's telephone number is out of date in the registry participant information. All other details are correct.	7 and 10	2.1
2 of a sample of 40 ICPs not created within 3 business days	51.2	3.2
474 of 2,086 updates to "Ready" not made within 2 business days.	51.3	3.2
Incorrect network pressure for 619 ICPs	58.1	4.1
One ICP with an altitude discrepancy resulting in a conversion error greater than 1.0%	58.1	4.2
173 ICPs with incorrect gas gates	58.1	4.3
534 load shedding category discrepancies	58.1	4.4
1,479 ICPs with duplicate or missing address information	58.1	4.6
Incorrect event dates for 715 ICPs	60.2	4.8
Not all registry updates made as soon as practicable.	61.1	4.9

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
Powerco	Yes	Yes	Included in the audited party comments box for each non conformance and recommendation.

The comments received were considered in accordance with rule 93.1, prior to preparing the final audit report. The following changes were made to the report after considering comments.

Report section	Requested by	Change
1.3	Powerco	Minor change to clarify that this section relates to prior historic breach allegations.
Appendix 2 – Powerco comments	Powerco	General comments provided by Powerco.

1.7 Gas Gate and ICP Data

Powerco owns and manages the Gas networks in the following regions: Taranaki, Manawatu, Hutt Valley, Porirua, Wellington City, Horowhenua and Hawke's Bay regions. The gas is drawn from the transmission system owned and operated by First Gas.

There have been no gas gates created or decommissioned in the last year. The table below lists the relevant Gas Gates:

Gas Gate	Description
ASH34301	Ashhurst
BEL24510	Belmont
DAN05001	Dannevirke
ELM12301	Eltham
FLD03001	Feilding
FOX22101	Foxton
HST05210	Hastings
HWA20801	Hawera
IGW11901	Inglewood

Gas Gate	Description
KAP12901	Kapuni (Lactose)
KKI23701	Kakariki
KPA12401	Kaponga
KRG24101	Kairanga
LNB24301	Longburn
LVN24401	Levin
MGK05401	Mangatainoka
MNA23402	Manaia
MTP20601	Matapu
NPL12101	New Plymouth
OKA13201	Okato
OKU16701	Oakura
OPK13001	Opunake
ORD24701	Oroua Downs
PAH23101	Pauatahanui 2 (Horsefield)
PAH23201	Pauatahanui 1
PGH15901	Pungarehu 2
PGU13101	Pungarehu 1
PHT04901	Pahiatua
PLN24201	Palmerston North
PTA20901	Patea
STR10201	Stratford
TKP05101	Takapau
TWA35610	Tawa A
WTG06910	Waitangirua
WTR12001	Waitara
WVY23601	Waverley

1.8 ICP data

Powerco provided a list of all ICPs as at September 2017 by way of a registry “list file”. A summary of this data by “ICP status” is as follows:

ICP Status	Number of ICPs 2017	Number of ICPs 2015
New	0	2
Ready	7	87
Active Contracted (ACTC)	104,453	101,432
Active Vacant (ACTV)	2,188	2,680
Inactive Transitional (INACT)	19,183	18,278
Inactive Permanent (INACP)	2,913	3,189
Decommissioned (DECR)	3,679	2,907

Powerco does not create ICPs at the “New” status on the registry. The seven ICPs at the “Ready” status were all created in 2017.

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.

Powerco’s telephone number is out of date in the registry participant information. All other details are correct.

Non Conformance	Description	Audited party comment
<p>Regarding: Rules 7 & 10</p> <p>Control Rating: Adequate</p>	<p>Powerco's telephone number is out of date in the registry participant information. All other details are correct.</p>	<p>Response: Powerco has updated the registry information phone number</p> <p>Comments:</p> <ul style="list-style-type: none"> Powerco has scheduled a 6 monthly review of registry contact details.

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.

No examples of Powerco acting unreasonably were found.

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 Powerco using registry software incompetently were found.

3. New connections

3.1 ICP creation (Rules 5.2, 43.1 and 43.2)

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

xxxxxxxxxx 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

ICPs must be assigned for each consumer installation connected to Powerco'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;
- Has its gas volume measured directly by a single set of metering equipment complying with NZS 5259:2015, or measured indirectly by a method approved by the industry body.

Powerco's process to create compliant ICP numbers was examined. All ICPs are in the correct format, have one loss factor, one price category, one GMS and no ICPs are downstream of other ICPs. Powerco has a process to check for ICP or installation conflicts, indicating that a property already has a gas connection or that an address may be incorrect. Compliance is confirmed.

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 why they are 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
- 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.

ICPs are created in the workflow section of the CWMS system. These write to the registry and the CWMS ICP management section once the ICP is "Ready". I checked the records for 40 ICPs where the registry was updated in 2016 or 2017 to confirm they were created within three business days. Many of the ICPs were created in CWMS some months prior to the registry population date which has led to historic processes being examined. These processes have now improved. The sample consisted of one allocation group (AG) 1, two AG2, 17 AG4 and 20 AG6 ICPs.

Applications are made by retailers or by their agents (customers or contractors) by entering the details into CWMS. I measured the three days from the date the application was entered to the date the ICP was created at "New" in CWMS. Two of the 40 ICPs (both AG6 and both in 2014) were not created within three business days. This does not achieve compliance with rule 51.2. There were no late updates in recent years; therefore the control rating is "effective".

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 51.2</p> <p>Control Rating: Effective</p>	2 of a sample of 40 ICPs not created within 3 business days	<p>Response: Powerco agrees with the findings. The two ICPs in question-related back to 2014 and processes have improved since these events occurred. Powerco notes there have been no reoccurrences over the last three years.</p> <p>Comments:</p>

Rule 51.3 requires the registry to be populated with two business days of connection. Powerco creates ICPs at Ready in the registry; therefore the measure is from the event date to the population date for status changes to Ready from the event detail report. I analysed all changes to Ready for the period 01/09/16 to 31/08/17 and found 480 of 2,092 updates were greater than two business days (77% compliance). 23 of the 40 were greater than 30 business days. Six of the updates were due to the reversal of decommissioning events at the request of GIC in order to change historic information such as load shedding categories. I have ignored these events when calculating the total number of late files and the average number of days. The average days from the event to the registry population date is 2.9 days.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 51.3</p> <p>Control Rating: Adequate</p>	474 of 2,086 updates to "Ready" not made within 2 business days.	<p>Response: Powerco agrees with the finding</p> <p>Comments:</p> <ul style="list-style-type: none"> Powerco, along with all other distributors will always be susceptible to this breach as long as there is reliance on service providers and manual processes to complete and send Works Completion Notices.

The process for new connections is managed closely with the field contractors. All ICPs pending connection have a planned connected date. Those ICPs with an installation due for connection within the next two weeks (approximately) are proactively managed with the field contractors to ensure paperwork is returned promptly. I checked ten ICPs with late updates and found the following:

- Five were caused by late field notification
- Two were connected without authorisation, meaning that Powerco was unable to monitor the receipt of field notification
- Two were not updated to the registry due to a system issue

- One was late because of a data entry error

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.

Each month there is a validation carried out between Powerco's records and the Registry. This validation checks for any mismatched fields such as price or loss category. All fields are checked. It was noted that the validation does not check for relational mismatches such as load shedding category against allocation group. I recommend the validation process is reviewed. Further comment is made in the sections below. I checked the data from CWMS against the registry for all ICPs and the only errors found related to timing issues and some minor altitude discrepancies which are on Powerco's list of corrections required.

4.1 Network pressure

When new ICPs are created, the relevant details from the GIS (including network pressure) are automatically populated. The only exceptions are where the address cannot be validated or the address has not been set up in the GIS. If the details are not automatically populated they are entered manually from dropdown menus.

I checked the accuracy of network pressure by running a query to identify ICPs where less than 60% of the ICPs on a particular street had one pressure and the remaining ICPs had a different pressure. This analysis identified 1,146 ICPs with possible discrepancies. Powerco analysed these discrepancies, with the following results:

Status	Quantity
Network pressure correct	403
Network pressure incorrect	619
No GIS data, will need to be manually checked	124
Total	1,146

Incorrect network pressure data does not achieve compliance with rule 58.1.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 58.1</p> <p>Control Rating: Adequate</p>	<p>Incorrect network pressure for 619 ICPs</p>	<p>Response: Powerco agrees with the audit findings. We are now in the process of assessing material impact and resolving the discrepancies. Powerco is also working towards improving registry validation to highlight inaccurate network pressures. We expect to have the incorrect network pressures and validations to be in place by May 2018.</p> <p>Comments:</p> <ul style="list-style-type: none"> The number of inaccurate network pressure ICPs reflects 0.6% of the billable ICP base which reflects the adequacy of controls currently in place

4.2 ICP altitude

It is a distributor responsibility to populate the registry with correct altitude information to support compliance with NZS 5259.

NZS 5259 Amendment No1 contains the following points, which affect the way altitude information should be managed:

1. The maximum permissible error is $\pm 1.0\%$ where the meter pressure is below 100kPa and $\pm 0.5\%$ where the meter pressure is greater than 100kPa.
2. 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."

Powerco provided a registry list file. A pivot table was created including all ICPs at ACTV and ACTC. Any outlying ICPs across all Gas Gates were checked on Google Earth. The "google earth" data is based on the "Shuttle Radar Topography Mission" (SRTM) results and a number of recent studies indicate an accuracy of $\pm 10\text{m}$ 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 $\pm 1.0\%$. Point 2 above recommends altitude figures are determined to within 10m where practicable. An evaluation of altitude data on the registry was conducted to check whether this recommendation had been met. As noted above, the margin of error of the "google earth" data appears to be approximately $\pm 10\text{m}$, therefore, to allow for this margin, I have checked that the registry data is within 20m of "google earth" data.

The pivot table identified 19 outliers, which all had incorrect altitudes recorded in the registry. The altitude error for one ICP will result in an error outside the allowable 1.0%. The recorded altitude is

207m and google earth shows it as 31m. The consumption for this ICP will be under reported by 2.0%. This ICP was also identified in 2015 during the voluntary audit. It appears to have been mis-mapped in the GIS against Dannevirke instead of Napier. The ICP is 0002022061QTA59.

I manually checked a further 60 ICPs selected at random. 45 where the registry had an altitude recorded and 15 where zero was recorded. One had a difference of 295m but it is at the status INACT. Six ICPs had a difference greater than 20m but less than 37m.

The incorrect altitude found for one ICP is recorded as non-compliance.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 58.1</p> <p>Control Rating: Effective</p>	<p>One ICP with an altitude discrepancy resulting in a conversion error greater than 1.0%</p>	<p>Response: Powerco agrees with the findings and that the process is effective. The mis-mapped ICP has been corrected.</p> <p>Comments:</p> <ul style="list-style-type: none"> We have monthly reporting on altitude and prioritise any discrepancies with that may have material impact. Due to the potential variation found in altitude on a parcel title we suggest direction from GIC on exact point from which the altitude should be measured.

4.3 Gas gate

This field is checked by running a query to identify examples where between 1% and 60% of ICPs on a road/gate combination were different to the remaining ICPs. This query identified 173 ICPs with incorrect gas gates. 105 were created in 2016 or 2017. 151 of the 173 have been corrected in the registry but the event dates were not backdated. This will need to be resolved.

Incorrect gas gates are recorded as non-compliance.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 58.1</p> <p>Control Rating: Adequate</p>	<p>173 ICPs with incorrect gas gates</p>	<p>Response: Powerco agrees with the findings showing the discrepancies and have made gas gate corrections in registry for ICPs found in audit. Powerco are applying better use of the tools available to ensure accurate data entry.</p> <p>Comments:</p> <ul style="list-style-type: none"> We plan on introducing more robust gas gate mis-match reporting by June 2018.

4.4 Load shedding category

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

Powerco provided reporting of load shedding category vs annual consumption. This reporting identified some discrepancies, which are summarised in the table below.

Scenario	Quantity
Load shedding category 3 with consumption greater than 15TJ	48
Load shedding category 3 with consumption less than 10TJ	17
Load shedding category 4 with consumption greater than 10TJ	8
Load shedding category 4 with consumption less than 250GJ	187
Load shedding category 6 with consumption greater than 250GJ	274

I checked a recent notification from GIC and confirmed Powerco had correctly updated the load shedding categories.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 58.1</p> <p>Control Rating: Adequate</p>	<p>534 load shedding category discrepancies</p>	<p>Response: Powerco has attempted to determine discrepancies of Load Shedding Categories but are not confident to act without prescriptive directions from GIC as discussed below.</p> <p>Comments:</p> <ul style="list-style-type: none"> • Powerco can only assess Load Shedding Categories 3, 4 and 6, based on the above Matrix. However, we believe GIC could provide more prescriptive directions on what to use to ensure the correct Load Shedding Category is populated on registry. Particularly on time frames for consumption periods, for example – calendar year, or pricing year, etc. • Powerco also question if is appropriate for the Distributor to be responsible for this field in first place, considering they do not hold consumer information. For example, we are unable to assess critical contingency requirement with consumers.

Some discussion was held regarding the best information to use for determining load shedding categories and how often updates should occur for ICPs where the consumption may regularly change between categories. I do not believe the allocation group should be relied upon, I think evaluation of consumption information from GEIP files is the best source of data. This is an area where distributors could benefit from a guideline note from GIC to clarify expectations, including the consumption period to use.

4.5 Maximum hourly quantity

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.

The MHQ is not used to determine network charges and the 15 ICPs with this field populated will be changed to blank.

4.6 Physical address

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.

The list file analysis found 1,471 duplicate addresses and eight ICPs with no street number or property name. This is recorded as non-compliance.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 58.1</p> <p>Control Rating: Adequate</p>	<p>1,479 ICPs with duplicate or missing address information</p>	<p>Response: Powerco agrees with the discrepancies found at the time of the audit. We have worked with retailers to resolve 951 discrepancies.</p> <p>Comments:</p> <ul style="list-style-type: none"> • Powerco continue to work through the address duplicates and plan to have resolved a significant number by May 2018.

4.7 Decommissioned status (Rules 59.11 and 59.12)

Decommissioned status 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.

Powerco provided an event detail report for the period September 2016 through to August 2017. 750 ICPs were “DECOMMISSIONED”. 19 updates were due to GIC requesting changes to registry fields for decommissioned ICPs, leading to the reversal of status events which made them appear to be backdated. I have ignored these in my analysis. The average registry update timeframe is 1.4 days. Six were updated later than 30 business days, mostly as part of a status clean-up exercise and where the decommissioned date was matched to the INACP date.

Powerco used to manage the decommissioning status by way of emailed communication but they now monitor service requests to identify where ICPs have been physically decommissioned so they can change the status accordingly.

The registry is required to be updated “as soon as practicable”. It appears some updates were not performed “as soon as practicable” based on the delays found when checking registry data. Recent

changes use the date of the update as the event date, which I don't believe achieves compliance with rule 60.2 as recorded in Section 4.8. Section 4.9 discusses the timeliness of registry updates.

4.8 Connection statuses (Rule 60)

The distributor must ensure the correct status change date is recorded in the registry.

715 of 737 decommissioning updates have an event date the same as the registry update date. Whilst this has no effect on other participants; rule 60.2 appears to require the correct date to be used.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 60.2</p> <p>Control Rating: Adequate</p>	<p>Incorrect event dates for 715 ICPs</p>	<p>Response: Powerco has been clearing historic inactive permanent ICP data. Historical ICPs that have no impact on market participants Powerco used the actual date the data record was decommissioned. The current process for decommissioning is to use the appropriate decommissioning date.</p> <p>Comments:</p> <ul style="list-style-type: none"> • Powerco will not decommission until it is clear it is safe to do so. • Powerco continues to work to resolve historic data issues and since the audit have safely decommissioned a further 483 ICPs.

There are 2,882 ICPs at the status INACP-GPM. Powerco is in the process of checking all of these ICPs to determine whether they can be safely decommissioned. This process includes an investigation to ensure the ICPs can genuinely be decommissioned and does not rely solely on the accuracy of the INACP-GPM status.

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.

Powerco carries out regular validation to identify and resolve discrepancies identified. The validation process requires review to ensure all discrepancies are identified.

In sections 3.2 and 4, I have recorded instances where the registry was not updated as soon as practicable. The other event I examined was the updating of price codes. 6,664 price code changes were made in the period September 2016 to August 2017 and 30 of these were made greater than 30 business days later than the event date. I have concluded that updates over 30 business days are unlikely to achieve the requirement to update “as soon as practicable”.

The 30 days is an arbitrary number chosen to provide some consistency across the audit process. I believe a rule change should be considered to provide a specific timeframe for registry population. My suggested approach is to set achievable timeframes recognising that exceptions can occur and in some cases there is reliance on the actions of another participant before the registry can be populated. Changes to decommissioned status is a good example where the distributor is reliant on the retailer to change their status first. I suggest a two tiered rule structure, for example “90% of updates within 5 business days and the remaining 10% within 10 business days”.

Non Conformance	Description	Audited party comment
<p>Regarding: Rule 61.1</p> <p>Control Rating: Adequate</p>	<p>Not all registry updates made as soon as practicable.</p>	<p>Response: Powerco will continue to monitor registry transactions to improve our internal processes for timelier registry updates.</p> <p>Comments:</p> <ul style="list-style-type: none"> Powerco believes that “as soon as practicable” as a rule is unclear and there should be a prescribed timeframe, or adopt a rule similar to the auditor’s suggestion.

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.

Powerco are aware of the notification requirements. There have been no Gas Gates created or decommissioned during the audit period.

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.

The setting of network price category codes is managed by the Powerco commercial team following a similar consultation process to that used in the setting of Electricity network prices. The consultation process begins in May each year with an updated price code book published every October. The network price codes were examined on the Gas Registry and found no codes had been added or updated since 2009.

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.

The setting of loss factor codes follow the same process as the price codes above. There is one loss factor per gate. The loss code is stored on the registry but not the loss factor. The loss factor is recorded against the gas gate in the price book.

The loss factor codes were examined on the Gas Registry and I found that no codes had been added or updated since 2009.

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.

Powerco are aware of the notification requirements. No loss factor codes have been created or deleted.

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.

Requests for information to be disclosed are logged by traders on Powerco's pricing website. Wherever a trader requests pricing, Powerco discloses the pricing information even if the pricing code is available on the registry.

I reviewed a sample of requests for pricing, and found that Powerco provided acknowledgement within one business day for all the requests.

Compliance is confirmed.

9. Recommendations

As a result of this performance audit I recommend Powerco continues to improve the validation processes to include mis-matches within the data.

Appendix 1 – Control Rating Definitions

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

Appendix 2 – Powerco comments

Powerco is committed to improving our conformance to the GIC rules and has dedicated significant resources to resolve historic data, system issues and will continue to do so over the coming months and years.

We are currently working through the exceptions found in the audit, assessing the impact on the retailer and end user, and making the required changes.

A system change has been developed for the defect with CWMS that is creating erroneous metering events on registry, this is now in the testing phase and we expect to have this in our production system by the end of January.

Powerco seek the guidance of the GIC with an approach to the load shedding categories, and provide specific timeframes for certain events, so the auditor does not have to apply arbitrary counts of days to assess timeframes taken to update registry.

We will continue to develop smarter technologies and processes to assist us in improving the quality of our registry data and timeliness of our updates to registry.