



GAS REGISTRY AND SWITCHING PERFORMANCE AUDIT HANERGY LTD

Date of audit: 7, 8 and 14 October 2020

Report completed: 10 August 2021

Under the Gas (Switching Arrangements) Rules 2008 the Gas Industry Company commissioned Langford Consulting to undertake a performance audit of Hanergy Ltd. The purpose of the audit is to assess compliance with the rules and the systems and processes put in place to enable compliance.

Auditor Julie Langford

Executive Summary

Under the Gas (Switching Arrangements) Rules 2008 (the rules) the Gas Industry Company commissioned Langford Consulting to undertake a performance audit of Hanergy Ltd.

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 summary of report findings shows that the Hanergy Ltd control environment, for the fifteen areas evaluated, is “effective” for ten areas, “adequate” for three areas and “not adequate” for two areas.

Three breach allegations are made in relation to Hanergy regarding the non-compliant areas and are summarised in the following table. The following recommendation was also made:

RECOMMENDATION That the systems for ensuring alignment of internal systems and the registry be reviewed to ensure alignment between Hanergy system data and the registry.

Summary of breach allegations

Section	Summary of issue	Rules potentially breached
2.3	No reply was given to the auditor's request for evidence of why GNWs occurred.	r91
7	Switches were initiated without a current use of system agreement with all the relevant distributors	r65.2.3
11.1	The GNT was not initiated within 2 business days of entering into a contract for 5 out of 20 ICPs	r66.1

Summary of report findings

Issue	Section	Control Rating (refer to appendix 1 for definitions)	Compliance Rating	Comments
Participant registration information	3	Effective	Compliant	Details were up to date
Obligation to act reasonably	4	Effective	Compliant	No examples of Hanergy acting unreasonably were found
Obligation to use registry software competently	5	Effective	Compliant	No examples of Hanergy using software incompetently were found
ICP identifier on invoice	6	Effective	Compliant	The ICP identifier is on Hanergy invoices
Use of system agreements	7	Not adequate	Not compliant	Some agreements held by Vector on behalf of Hanergy had expired
Uplift of READY ICP	8	Effective	Compliant	Hanergy didn't have any new ICPs in the period reviewed, but did demonstrate they had a process in place for managing new ICPs.
Maintenance of ICP information in registry	9	Adequate	Compliant	Hanergy could be more timely with the status updates.
Resolving discrepancies	10	Adequate	Compliant	Processes for ensuring system information is aligned with the registry are in place but they could be tighter
Initiation of consumer switch/switching notice	11.1	Adequate	Not compliant	Of the 20 instances of GNTs initiated in 2019 reviewed, 5 were not initiated within 2 business days of entering into a contract
Response to a gas switching notice	11.2	Effective	Compliant	No issues
Gas acceptance notice	11.3	Effective	Compliant	No issues
Gas transfer notice	11.4	Effective	Compliant	No issues
Accuracy of switch readings	11.5	Effective	Compliant	No issues
Gas switching withdrawal	11.6	Not adequate	Unable to form a view	This area could not be assessed due to a failure to respond to the auditor's request for evidence
Switch reading negotiation	11.7	Effective	Compliant	No issues were found with this process

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1. Introduction

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

The engagement commenced on 17 January 2020. Hanergy use Vector Data Services (Vector) as a service provider so the on-site part of this audit was completed at Vector's offices in New Plymouth and was done in parallel with the audits of other retailers who use Vector's services. Arrangements for site visits were made, but cancelled twice due to pandemic protocols, but were able to occur in October. Other aspects of this audit were conducted remotely.

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 undertaken in parallel with a performance report under the Gas (Downstream Reconciliation) Rules 2008 which is reported on separately.

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>).

At the time of the audit Hanergy was retailer for 59 ICPs.

2. General Compliance

Hanergy has been a registry participant since 27 December 2018.

Hanergy use Vector Data Services as their agent for dealing with switching and other registry matters. Vector use a SQL database with an Access front end, known as Artemis, to achieve this. Interactions between Vector and Hanergy occur mostly via FTP.

2.1 Summary of Previous Audit

This is the first audit for Hanergy.

2.2 Switch Breach Report

Hanergy has had no alleged switching breaches.

2.3 Provision of information to the Auditor (rule 91)

In conducting this audit, the auditor may request any information from Hanergy, the allocation agent and any allocation participant. Information was also provided by Vector as Hanergy's data services agent.

Information was provided by Hanergy and Vector, although information from Hanergy was not always supplied in a timely manner. There was a delay of several months between the initial request and the subsequent supply of some information. Despite several reminders, as of the date of this report there remained one request outstanding, originally requested on 5 November 2020.

ALLEGED BREACH: Hanergy did not reply to one request of the auditor, relating to evidence of why GNWs occurred. The auditor was therefore unable to establish whether Hanergy was using the reason codes accurately or were making persistent process errors. (Rule 91)

See section 11.6, gas switching withdrawals for further information.

3. Participant registration information (rules 7 and 10)

The participant registration information was reviewed and confirmed as current.

4. Obligation to act reasonably (rule 34)

No examples of Hanergy acting unreasonably were found.

5. Obligation to use registry software competently (rule 35)

No examples of Hanergy using registry software incompetently were found.

6. ICP identifier on invoice (rule 36)

An example of a Hanergy invoice was viewed and was found to show an ICP number.

7. Use of system agreements (rule 65.2.3)

The rules require that before initiating a switch a retailer must be party to a valid subsisting agreement with the owner of the distribution system to which the consumer installation is connected. As a part of this audit, the auditor requested sight of the current use of system agreements with the gas distributors. As a part of the company's agreement with Vector, Vector Gas Ltd holds the use of system agreements with the distributors.

The auditor conducted a brief review of the use of system agreement documentation immediately available at Vector's premises. There was evidence of Vector Gas Ltd having a use

of system agreement with all of the four current distributors, but this initial review suggested those with First Gas Ltd and GasNet (Wanganui) had expired. Those with Vector Ltd and Powerco looked as if they may still be current as no expiry date could be identified.

ALLEGED BREACH: Hanergy initiate switches without a current use of system agreement with all the relevant distributors (r65.2.3)

This alleged breach has been detailed in previous reports from the same audit visit in relation to other retailers whose affairs are managed by Vector. It is understood Vector has since taken action to address this issue, but the same breach is listed for this retailer for completeness.

8. Uplift of READY ICP (rule 54)

To comply with rule 54, it is necessary for a retailer, once the ICP status is changed to READY by the distributor, to enter registry ICP parameters, including ICP status and valid connection status, within 2 business days of entering a contract to supply with the consumer.

Hanergy has 3 ICPs that were created in 2019. However, they were not the first retailer for any of these ICPs, they were switched to them later in the year. There were therefore no actual new connections to review. It was however verified with Vector as their agent that they had a new connections process in place and the process was reviewed as a part of the on-site audit.

Vector demonstrated the process for creating new ICPs on the retailer's instructions. The retailer sends an e-mail requesting Vector claim the ICP on their behalf, they supply the ICP, event date, status, connection status and allocation group. Vector initiate the claim, asking for any additional information from the retailer to complete all the required fields. Vector then ask the meter owner for the relevant paperwork, which provides them with an initial read. This initial read is then added to the SQL database and Flow2E. Vector then request that Wells add the ICP to their meter reading schedule. When the first file comes back from Wells with a read for the new ICP this triggers the first energy calculation and consequential inclusion in the submission files.

No issues arose from the review of this process.

9. Maintenance of ICP information in the registry (rules 58 to 61)

Vector explained their processes.

Vector checks every day to see if Hanergy have any items on the breach timer report. If so they send Hanergy details by email so they can supply the necessary response within the required timeframes.

Hanergy notify Vector of any status changes by e-mail and also tell them the event date. Vector then action these on receipt.

Vector also routinely pull LIS files from the registry once a month to identify any fields that have changed to update their SQL database. They also pull a monthly EDA file.

Vector also use month end files from the meter owners and the distributors to identify discrepancies which suggest a status change has been missed. For example if a meter owner is

no longer invoicing for a meter because it's been removed, this suggests an ICP should be updated to INACT. Another example would be if a distributors' report showed some ICPs as being active when they were still INACT in Vector's system and on the registry. Vector raise any discrepancies with the retailer who in turn advise if a status change should be made.

Retailers must use "reasonable endeavours" to maintain current and accurate information in the registry (r58) and, if a responsible retailer becomes aware that information is incorrect or requires updating, they must correct or update the information "as soon as practicable" (r61). The rules do not therefore define a specific period but for this year's audit a more tailored approach has been taken to this requirement. The data has been assessed against a "two-tiered" target of 90% within 5 business days and 100% within 20 business days.

An analysis of the Hanergy participant status events was undertaken to see how promptly the registry was being updated. The event detail report was examined for 2019 to check the timeliness of all status event changes. The table below shows the results of this examination.

Status Updates	Total ICPs	Update greater than 5 business days	Update greater than 20 business days
ACTC	9	4	2
ACTV	1	0	0
TOTAL as %		40%	20%

The two incidences of greater than 20 days related to a reversal of the same ICP.

	No of status events	Paired with
ACTC	9	GAS
ACTV	1	GAS

An analysis of status codes was done and is shown in the table above. The ICP status codes were all paired with legitimate connections status codes.

10. Resolving discrepancies (rule 62.1)

There was evidence of Vector doing routine checks between their systems and the registry to ensure alignment. They routinely pull LIS and EDA files to compare with their system and also do comparisons between different parts of their system (Flow2E, SQL database and relevant

spreadsheets). However, it was noted that some discrepancies are still arising and that there was no direct validation between Flow2E and the registry – Flow2E was instead validated against Vector’s SQL database, which had in turn been checked against the registry.

The records in the Vector system were compared against the information in the registry for gas gate; meter pressure; dials; multiplier and altitude. Generally, there was good alignment, but some discrepancies were found in the meter pressure and altitude fields. Further details can be found in the associated downstream reconciliation audit report.

As these registry fields are not the responsibility of the retailer to maintain no alleged breach has been made here under rule 62.1, however it is recommended that Hanergy and Vector review its processes for ensuring alignment between its systems and the registry, and for dealing with any discrepancies identified.

RECOMMENDATION That the systems for ensuring alignment of internal systems and the registry be reviewed to ensure alignment between Hanergy system data and the registry.

11. Switching

Vector send each retailer a switch report every day so they can supply the necessary response within the required timeframes. Communication between Hanergy and Vector is by FTP, but as they only have a few ICPs the communications are infrequent. Vector process instructions from their retailers every day, typically by midday.

11.1 Initiation of consumer switch (rules 65 to 67)

The processes for the initiation of a switch were reviewed for compliance with the requirements to be sent within 2 business days of entering a contract to supply gas to the consumer, along with a review of a sample of GNTs (notice to transfers). (r66.1)

When Vector receive an instruction from the retailer to initiate a switch their process is:

- Request a REQ file
- Add the ICP to their SQL database
- Create a GNT in Access
- Send the GNT to the registry and receive GNT acknowledgment
- The registry then prompts the losing retailer
- Vector checks every day to see if Hanergy have any items on the breach timer report. If so they send Hanergy details by email so they can supply the necessary response within the required timeframes.
- Communication between Hanergy and Vector is by e-mail, but they are infrequent as their level of activity is low. Vector process instructions from their retailers every day, typically by midday.

GNTs initiated by Hanergy in 2019 were reviewed to see if they were initiated within 2 business days of entering into a contract (unless they had been entered into more than 12 business days to the commencement of supply).

Of the twenty instances reviewed, five failed to comply with rule 66.1. The detail is supplied in appendix 2.

- ALLEGED BREACH r66.1 The GNT was not initiated within 2 business days of entering into a contract for 5 out of 20 ICPs

All GNTs for switch type S and SM were reviewed for compliance with r67.3 and 67.3A to check they weren't sent more than 10 business days prior to the switch date. No breaches were found.

11.2 Response to a gas switching notice (rules 69 to 75)

Vector receives files from the registry regularly through the day via FTP. Each morning they use their Access database to import these files. Any GNTs received in the last 24 hours will appear and Vector send a GAN automatically to acknowledge this. They then e-mail Hanergy to ask them if they should accept the switch out. If so, they complete and send the GTN.

Hanergy received 3 GNTs in 2019 and all were responded to within the required 2 business days.

11.3 Gas acceptance notice (rule 70)

A sample of GANs (acceptance notices) initiated by Hanergy were reviewed for compliance with the 2-business day rule in r69.1 and the switch date rules in r70.2 and r72.2.

No breaches were found.

11.4 Gas transfer notice (rule 72)

There were two GTNs (transfer notices) where Hanergy was the responsible retailer in 2019. Both were reviewed for compliance with r 72 and r74, no issues were identified.

11.5 Accuracy of switch readings (rule 74)

The accuracy of switch readings was examined as a part of the activities detailed in section 10.4 above. There are no additional issues to report in this section.

11.6 Gas switching withdrawal (rule 74A, 75, 76, 78)

If Vector identify a GNW for Hanergy when they do their daily import of registry files, they screenshot this and send it to Hanergy. Hanergy conduct any discussions with the other retailer, Vector take no part in this. Hanergy then instructs Vector to accept or reject the withdrawal and Vector sends the GAW file.

If the retailer wants to initiate a GNW they send Vector the details by email, Vector convert this into the GNW format and submit it to the registry.

An analysis was undertaken of GNWs (switching withdrawal notices) to identify the number within each reason category. This was done for the audited participant as both the recipient of the GNW and as the initiator of the GNW and where Hanergy was the old retailer and the new retailer. The results are shown in the tables below.

Hanergy as responsible retailer

Role code	Requesting reason	Number	% of GNTs
N	CR	1	1%
O	CR	1	1%

Hanergy not responsible retailer

Role code	Requesting reason	Number	% of GNTs
0	CR	12	17%
0	WS	1	1%

N = requesting retailer is new retailer, O = requesting retailer is old retailer.

CR is customer request; WS is wrong switch type

There were NIL entries for other reason codes.

During the October on-site review it was established Vector couldn't validate the associated retailer interactions or accuracy of the choice of reason codes. Therefore on 5 November 2020 the auditor requested from Hanergy:

- evidence of why the withdrawal was sent, sufficient to confirm the reason code used was accurate.
- where Hanergy was the recipient of the GNW, evidence of why the GNW was necessary (except where the other retailer reason was CR), sufficient to see if Hanergy are making any persistent errors in the switching process which is prompting the need for the counterparty to send GNWs.

The auditor sent several follow up requests for this information but as of the date of this report no response had been received.

The auditor was therefore unable to establish whether Hanergy were using the reason codes accurately or were making persistent process errors.

See appendix 1 for a list of the GNWs.

11.7 Switch reading negotiation (rule 79, 81)

There were 2 instances of Hanergy initiating a GNC, both for the same ICP in the same month. These were both reviewed. There was evidence of legitimate queries to resolve with the other retailer.

There were no instances of Hanergy receiving a GNC.

12. Bypass of distributor (rule 82)

Hanergy is not a retailer on a bypass network so they have no responsibility under r82.

13. Breach Allegations

Section	Summary of issue	Rules potentially breached
2.3	No reply was given to the auditor's request for evidence of why GNWs occurred.	r91
7	Switches were initiated without a current use of system agreement with all the relevant distributors	r65.2.3
11.1	The GNT was not initiated within 2 business days of entering into a contract for 5 out of 20 ICPs	r66.1

14. Conclusion

The summary of report findings shows that the Hanergy Ltd control environment, for the fifteen areas evaluated, is "effective" for ten areas, "adequate" for three areas and "not adequate" for two areas.

Three breach allegations are made in relation to Hanergy regarding the non-compliant areas and are summarised in the above table. The following recommendation was also made:

RECOMMENDATION That the systems for ensuring alignment of internal systems and the registry be reviewed to ensure alignment between Hanergy system data and the registry.

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 Alleged Breach Detail

11.1 Initiation of consumer switch (rules 65 to 67)

ALLEGED BREACH r66.1 The GNT was not initiated within 2 business days of entering into a contract for 5 out of 20 ICPs

Switch Moves		Event Date	Event entry date	Date contract entered into
0001438532QTF41	GNT	10-05-19	10-05-19 16:30	07-04-19
0003016733NGA05	GNT	26-03-19	20-03-19 9:55	15-03-19
Switch				
0001022253NGA2E	GNT	20-03-19	20-03-19 9:31	13-03-19
1001272767QT8FC	GNT	04-02-19	15-02-19 14:58	31-01-19
1001299118QT6E4	GNT	12-02-19	15-02-19 14:58	29-01-19

11.6 Gas switching withdrawal

ICP		EVENT Date	Requesting retailer	Requesting retailer role code	Requesting reason
0001022253NGA2E	GNW	13/03/2019	MEEN	O	CR
0001022253NGA2E	GNW	20/03/2019	HANE	N	CR
0001032269NG7A6	GNW	18/03/2019	GEOL	O	CR
0001032269NG7A6	GNW	18/03/2019	GEOL	O	CR
0001034272NG61F	GNW	4/04/2019	GNVG	O	CR
0001398445QTD31	GNW	14/11/2019	TRUS	O	CR
0001432201QT53B	GNW	14/10/2019	GENG	O	CR
0001438532QTF41	GNW	10/04/2019	GENG	O	CR
0001438532QTF41	GNW	10/05/2019	HANE	O	CR
1001130665QT51C	GNW	8/10/2019	GENG	O	CR
1001130665QT51C	GNW	8/10/2019	GENG	O	CR
1001252321NG8DC	GNW	8/03/2019	TRUS	O	CR
1001266977NGCFD	GNW	10/06/2019	CTCT	O	CR
1001282288QTD01	GNW	26/03/2019	TRUS	O	WS
1002044017QT55C	GNW	30/09/2019	TRUS	O	CR

Appendix 3 Vector response to preliminary draft



Vector Limited
101 Carlton Gore Road
PO Box 99882
Newmarket
Auckland 1149
+64 9 978 7788 / vector.co.nz

12 August 2021

Julie Langford
Langford Consulting

Sent by email

Dear Julie

Draft Reconciliation and Switching Audits – Hanergy Limited

1. Vector Gas Trading Limited (*Vector*) appreciates the opportunity to comment on the draft Reconciliation and Switching audit reports for Hanergy Limited issued on 30 July and 10 August 2021 respectively.
2. Vector believes that the draft Reconciliation audit report with regards to Vector's involvement to be accurate and therefore has no further comments on the report
3. With regards to the Switching audit Vector disagrees that there is a breach of Rule 65.2.3 of Gas (Switching Arrangement) Rules 2008. We accept there was a question regarding the currency of our arrangements with First Gas and GasNet at the time of the audit. We have however received written confirmation that the network services agreements with these network operators, whilst over 20 years old are still in place and active.
4. We are unable to comment of the alleged breach of the Gas (Downstream Reconciliation) Rules 2008 with regards to Rule 66.1 as we are not advised of the date that the customer contract is signed.
5. If you would like to discuss any of the above matters in greater detail then please do not hesitate to call me on 06 215 4427 or email at jim.raybould@vector.co.nz

Yours sincerely

A handwritten signature in black ink that reads 'Jim Raybould'.

Jim Raybould
Business Service Advisor