



# RECONCILIATION AUDIT PULSE ENERGY ALLIANCE LP

Date of audit: 7, 8 and 14 October 2020

Report completed: 7 July 2021

Under the Gas (Downstream Reconciliation) Rules 2008 the Gas Industry Company commissioned Langford Consulting to undertake a performance audit of Pulse Energy Alliance LP. 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

This performance audit was conducted at the request of the Gas Industry Company (GIC) in accordance with rule 65 of the 2015 Amendment Version of the Gas (Downstream Reconciliation) Rules 2008 effective from September 2015.

The purpose of this audit is to assess the systems, processes and performance of Pulse Energy Alliance LP (Pulse) in terms of compliance with these rules.

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

The summary of report findings in the table below shows that the Pulse control environment is "effective" for ten of the areas evaluated, "adequate" for four areas and "not adequate" for one area.

Eleven of the eighteen areas evaluated were found to be compliant, four not compliant and three were found not to be applicable. Breaches have already been raised by the Allocation Agent with respect to the accuracy of initial submission files (rule 37.2) and the following additional alleged breaches are raised because of this audit:

Breach Allegation	Rules	Section in this report
Pulse did not include new ICPs in the initial submission file for any of the 31 sample ICPs checked. For 2 of the those checked they did not include the ICP in the interim file either.	28.3	2.1.1
15 ICPs needed to be moved from allocation group 4 to allocation group 6	29.3	3.2
The December 2019 GAS080 reported that 130 out of 4,156 ICPs had not had an actual meter read in the last 12 months	29.4.3	3.3

In addition to recommending that Pulse address the cause of the alleged breaches, the report also makes the following recommendations:

**RECOMMENDATION:** That Pulse review how they construct the report which drives the submission data, to ensure new ICPs are included in initial submission files.

**RECOMMENDATION:** That Pulse review their monthly process for validating allocation groups and in particular review them to identify ICPs that should be moved down allocation groups as well as up.

**RECOMMENDATION:** Pulse should review their methodology for forward estimates and the inclusion of new ICPs in initial files, as ongoing compliance breaches regarding the differences between initial and final submission files are likely to become material if their business continues to grow.

## Summary of Report Findings

Issue	Section	Control Rating (Refer to Appendix 1 for definitions)	Compliance Rating	Comments
ICP set up information	2.1	Not adequate	Not compliant	New ICPs are not being promptly included in submission files
Metering set up information	2.2	Adequate	Compliant	Alignment between the registry and Pulse systems was mostly good, but a few discrepancies between gas gates, meter pressure and number of dials suggest process issues that could lead to inaccurate energy conversion
Billing factors	2.3	Effective	Compliant	Temperature data has been updated to the new GIC data
Archiving of reading data	3.1	Effective	Compliant	Meter reading data is available after 30 months.
Meter interrogation requirements	3.2	Adequate	Not Compliant	Some ICPs were identified as needing to be moved between allocation groups
Meter reading targets	3.3	Adequate	Not Compliant	There were some sites that had not been read in more than 12 months
Non TOU validation	3.4	Effective	Compliant	No issues were identified
Non TOU error correction	3.5	Effective	Compliant	No issues were identified
TOU validation	3.6	n/a	n/a	Pulse have no TOU sites
Energy consumption calculation	4	Effective	Compliant	Two energy calculations were replicated

TOU estimation and correction	5.1	n/a	n/a	Pulse have no TOU sites
Provision of retailer consumption information	5.2	Effective	Compliant	No issues identified
Initial submission accuracy	5.3	Adequate	Not compliant	Alleged breaches have been made for initial allocations not being within 10% of the final allocation figures.
Historic estimates	5.4	Effective	Compliant	Compliance was achieved for all relevant scenarios
Proportion of HE	5.5	Effective	Compliant	The correct proportion of HE is being reported.
Forward Estimates	5.6	Effective	Compliant	Processes were reviewed and no issues were identified.
Billed vs consumption comparison	5.7	Effective	Compliant	Reported figures were accurate and there was minimal difference between the two sets of data over the 3 years analysed
Gas trading notifications	5.8	n/a	n/a	Pulse has no supplementary agreements

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# **1. Pre-Audit and Operational Infrastructure Information**

## **1.1 Scope of Audit**

This performance audit was conducted at the request of the Gas Industry Company (GIC) in accordance with rule 65 of the 2015 Amendment Version of the Gas (Downstream Reconciliation) Rules 2008 effective from September 2015.

65. Industry body to commission performance audits

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

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

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

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

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

The engagement commenced on 15 January 2020. Pulse 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 scope of the audit includes “downstream reconciliation” only. Switching and registry management functions were audited in conjunction with this audit but are included in a separate report.

## **1.2 General Compliance**

### **1.2.1 Actions since the Previous Audit**

Pulse started as a retailer on 23 October 2013 and underwent their first and only audit under the Downstream Reconciliation rules in 2015. This audit found that Pulse had made the following improvements since the last audit:

- An improvement in the processes for the use of altitude data
- The updating of temperature data as provided to industry by the GIC
- The implementation of a routine check of allocation groups

## 1.2.2 Breach Allegations

Since 2015 Pulse have been the subject of 8 alleged breaches relating to 13 underlying breaches under the Downstream Reconciliation rules, all alleged by the Allocation Agent and all relating to rule 37.2 (accuracy of consumption information for the initial allocation).

The following additional alleged breaches are raised because of this audit:

Breach Allegation	Rules	Section in this report
Pulse did not include new ICPs in the initial submission file for any of the 31 sample ICPs checked. For 2 of the those checked they did not include the ICP in the interim file either.	28.3	2.1.1
15 ICPs needed to be moved from allocation group 4 to allocation group 6	29.3	3.2
The December 2019 GAS080 reported that 130 out of 4,156 ICPs had not had an actual meter read in the last 12 months	29.4.3	3.3

## 1.3 Provision of Information to the Auditor (rule 69)

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

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

It is considered that all parties have complied with the requirements of this rule.

## 1.4 Transmission Methodology and Audit Trails (rule 28.4.1)

A complete audit trail was viewed for all data gathering, validation and processing functions. Compliance is confirmed with this rule, consumption information is transferred and stored in such a manner that it cannot be altered without leaving a detailed audit trail.

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

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

Compliance with this rule has been examined in relation to the set-up of ICP, metering and billing information. The "Gas (Downstream Reconciliation) Rules 2008 Billing factors guideline note,



V2.0" (Billing Factors Guideline) published by GIC on 30/11/15 was also considered when examining the set up and maintenance of information.

## **2.1 ICP Set Up Information**

### **2.1.1 New Connections Process**

The process was examined for the connection and activation of new ICPs.

The switching and registry management audit that was completed alongside this audit, reports on the analysis of the new connections process with respect to the Gas (Switching Arrangements) Rules 2008 (the switching rules) and this is therefore not repeated here in full.

A retailer must supply consumption information for all consumer installations for which it was the responsible retailer, to the allocation agent. A sample of new connection ICPs input into the registry in 2019 were checked for correct inclusion in consumption submission files. Of the 31 new ICPs reviewed, 29 were not included in the submission file until the interim file and 2 were not included until the final submission file. None were included in the initial file.

ALLEGED BREACH: Pulse did not include new ICPs in the initial submission file for any of the 31 sample ICPs checked. For 2 of the those checked they did not include the ICP in the interim file either. (r28.3)

Pulse explained that the report they send to Vector is based on the ICPs they have invoiced for the month. These ICPs were not in the initial file because they had not been invoiced by the time they submitted the report to Vector for inclusion in the submission data.

RECOMMENDATION: That Pulse review how they construct the report which drives the submission data, to ensure new ICPs are included in initial submission files.

See appendix 2 for details.

### **2.1.2 Altitude Information**

It is a distributor responsibility to populate the registry with correct altitude information to support compliance with NZS 5259:2015, and it is a retailer responsibility to comply with NZS 5259:2015 for the conversion of volume to energy.

NZS 5259 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."
3. The altitude factor can be assumed to be 1 where meters are situated at an elevation less than 50m above sea level.

The registry list file for Pulse was reviewed for obvious outliers and sample checks made against Google Earth with an emphasis on newer ICPs set up since the last audit round. The data quality was good and no issues were found.

## **2.2 Metering Set-up Information**

The records in the Pulse system were compared against the information in the registry for gas gate; meter pressure; dials and multiplier. Generally, there was good alignment, but some discrepancies were found in the gas gate, meter pressure and number of dials fields. Further details can be found in appendix 2. Errors in meter pressure cause inaccurate energy conversion although in this instance not outside of the allowable maximum permissible error; errors in gas gate can cause incorrect gas type and temperature factors, although in this instance the gas gates were for the same gas type; and incorrect number of dials can lead to the misinterpretation of meter reads. Although in these instances the errors weren't found to have led to errors outside of the allowable maximum permissible error under NZS5259 such that no breach has been alleged, they do point to system deficiencies that could lead to inaccurate energy conversion.

It is recommended in section 10 of the associated switching audit report that the systems for ensuring alignment of internal systems and the registry be reviewed to ensure alignment between Vector system data and the registry and in particular extended to include a direct check between the registry and Flow2E. This recommendation is therefore not repeated here.

## **2.3 Billing Factors**

### **2.3.1 Temperature Information**

Pulse extracted and supplied a copy of the temperature table they were using in Gentrack, which matched the table recently supplied to industry.

### **2.3.2 Calorific Values**

Gas composition data is sourced from the Open Access Transmission Information System (OATIS) and this was confirmed as being correctly loaded into Gentrack during a video conference call. However, it was noted that the energy conversion for the ICPs viewed used a compressibility factor of 1. This is discussed further in section 4.

## **3. Meter Reading and Validation**

### **3.1 Archiving of Register Reading Data (rule 28.4.2)**

Retailers are required to keep register reading data for a period of 30 months. Data was examined during the audit and it is confirmed that meter reads are available 30 months after their date of origin

Sample meter read data was also verified against the data used as the meter read input for the energy calculation to prove the end-to-end process.

### **3.2 Metering Interrogation Requirements (rule 29)**

Rule 29 specifies the type of metering (TOU or non-TOU) that must be installed at a consumer installation, the relevant allocation group that the consumer installation falls within and the interrogation requirements that apply depending on the type of metering and allocation group.

During the on-site audit Vector's monthly process for reviewing the Pulse allocation groups was demonstrated. This checks for the 250 GJ and the 10 TJ thresholds. If an ICP needs to be changed an email is sent to advise the meter owner and the registry is updated directly by logging on via the front end.

Pulse only has allocation group 4 and 6 ICPs. The auditor did a comparison of load shedding categories and allocation groups as a way of validating the allocation groups. Some anomalies were found and shared with Vector and these were all further reviewed. 15 ICPs needed to be changed from group 4 to group 6. Vector have actioned the changes. In particular the auditor noticed Vector's monthly process was checking for upward movements between allocation groups but not for situations where ICPs should be moved down from group 4 to group 6.

ALLEGED BREACH 15 ICPs needed to be moved from allocation group 4 to allocation group 6 (rule 29.3)

RECOMMENDATION That Pulse review their monthly process for validating allocation groups to see why these ICPs were missed and in particular review them to identify ICPs that should be moved down allocation groups as well as up.

### **3.3 Meter Reading Requirements (rules 29.4.3, 29.5 & 40.2)**

All consumer installations with non-TOU meters must have register readings recorded at least once every 12 months unless exceptional circumstances prevent such an interrogation (rule 29.4.3).

Pulse supplied a copy of the meter readings file they supplied to Vector in September 2020. This showed details of actual meter reads for each ICP which in turn formed the basis of the GAS080 file submitted on their behalf by Vector. No issues were identified with the process of generating and submitting the GAS080.

Pulse has their own processes for monitoring actual reads. They have an internal "read frequency report" which monitors customers who have not had an actual read in more than 4 months which is used as a work list.

A review of GAS080s over the last few months of 2019 showed Pulse were typically achieving 97% of ICPs having an actual meter read in the last 12 months. The percentage of ICPs read in the last 12 months was not significantly improved compared with the percentage of reads over the last 4 months, Pulse could do more work in this area. A breach has been alleged for the last month of this analysis but could have been raised for any of the preceding months, see appendix 2 for further detail.

ALLEGED BREACH The December 2019 GAS080 reported that 130 out of 4,156 ICPs had not had an actual meter read in the last 12 months (rule 29.4.3)

### **3.4 Non TOU Validation**

Pulse receives readings from field services into their data warehouse, which are then passed into Gentrack. Gentrack does the energy conversion and any estimation required. Information is then supplied to Vector for submission, along with a revenue file and the actual reads for all ICPs.

The Pulse billing team verify all the readings and identify any anomalies such as rollover reads, unusually high or low usage etc. No issues were identified with the Pulse validation.

### **3.5 Non TOU Error Correction**

Error correction was examined by a “walk through” of the process and by examining examples. No issues arose.

It was confirmed that the corrected quantities were included in the final submission files.

### **3.6 TOU Validation**

Pulse do not have any TOU ICPs.

## **4. Energy Consumption Calculation (rule 28.2)**

Pulse don't use Vector for their energy calculations, they use Gentrack and an associated data warehouse and provide Vector with converted data for submission. The auditor verified the energy calculation via a virtual meeting with Pulse where Gentrack screens were shared.

As a part of the check each individual component of the energy calculation was verified back to its original source (e.g. pressure back to the registry, gas type information back to OATIS and meter readings back to the source meter reads data). The following matters arose from this check:

- Two ICPs were viewed, one had a calculated temperature factor to three decimal places but the other had a factor of exactly one. Pulse investigated this further with Gentrack and established in this instance the correct temperature factor was exactly one. The temperature factor is therefore calculating correctly, not defaulting to one.
- It was verified that there was an OATIS data table which was extracting gas type data from OATIS. This data was up to date and accurate. However, the two ICPs both had a deviation factor of one, which seemed likely to be a default rather than a calculated compressibility figure using the gas type data. However, NZS5259 2.1.2.3 states that a compressibility factor shall be applied where the non-application would result in errors greater than the limit specified. Application is recommended at pressures above 50 kPa. As Pulse do not have any ICPs with pressure above 50 kPa, the use of a default compressibility factor of 1 is compliant.
- The last audit recommended the use of Joules Thomson. Pulse do not currently do this, but any error arising would be within the NZS5259 maximum permissible error.

## 5. Estimation and Submission Information

### 5.1 TOU Estimation and Correction (rule 30.3)

Pulse do not have any TOU ICPs.

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

During the on-site audit a sample GAS040 file was compared with Vector's system for one gas gate to demonstrate:

- That the GAS040 accurately reflects the data
- That the GAS040 is computed at an ICP level then aggregated
- That the aggregation is accurate

### 5.3 Initial Submission Accuracy (rule 37.2)

Rule 37.2 requires that the accuracy of consumption information, for allocation groups 3 to 6, for initial allocation must be within a certain percentage of error published by the industry body. The published percentage for the months analysed is 10%.

Pulse did not meet the +/-10% requirement for many of its gas gates during the 12-month period reviewed. The results are summarised in the table below. However, because Pulse is a relatively small retailer the amounts involved were only material for one gas gate in December 2017.

Month	Total Gas Gates	Number Within +/- 10%	% Compliant	Within +/- 10% or < 200 GJ	% Compliant or immaterial
December 2017	55	20	36%	54	98%
January 2018	55	18	33%	55	100%
February 2018	55	17	31%	55	100%
March 2018	55	20	36%	55	100%
April 2018	55	16	29%	55	100%
May 2018	56	24	43%	56	100%
June 2018	56	18	32%	56	100%
July 2018	56	37	66%	56	100%
August 2018	56	37	66%	56	100%

September 2018	56	31	55%	56	100%
October 2018	56	26	46%	56	100%
November 2018	56	30	54%	56	100%

The following table shows the difference between consumption information for initial and final submissions at an aggregated level for all gas gates. This demonstrates compliance in 7 out of 12 months.

<b>Month</b>	<b>Initial Submission All Gas Gates (GJ)</b>	<b>Final Submission All Gas Gates (GJ)</b>	<b>Percentage Variation</b>
December 2017	4,747	3,967	20%
January 2018	4,278	3,700	16%
February 2018	3,749	3,143	19%
March 2018	4,113	4,037	2%
April 2018	4,998	5,911	15%
May 2018	8,517	9,287	8%
June 2018	11,677	13,191	11%
July 2018	14,207	13,706	4%
August 2018	11,965	12,759	6%
September 2018	11,320	11,267	0%
October 2018	9,161	9,145	0%
November 2018	7,303	7,122	3%

Breaches have already been alleged for differences between initial and final submission data so are not repeated here.

An initial file and final file for the same consumption month were compared at an ICP level. The list of ICPs was not the same. The initial file included 5,067 ICPs and the final file 5,079 ICPs, there were 19 ICPs different between the two lists. The main reason for this was established as new ICPs not making it into initial files. The submission files are driven by the invoicing system and if new ICPs don't make it into the invoicing system they don't make it into the initial submission file either.

RECOMMENDATION: Pulse should review their methodology for forward estimates and the inclusion of new ICPs in initial files as ongoing compliance breaches regarding the differences between initial and final submission files are likely to become material if their business continues to grow.

## 5.4 Historic Estimates (Rules 34 & 35)

To assist with determining compliance of the historic estimate processes, Pulse was supplied with a list of scenarios. Pulse provided an example for each relevant scenario and no issues were identified.

HE Scenarios			
Test	Scenario	Test Expectation	Result
A	ICP becomes Active part way through a month	Consumption is only calculated for the Active portion of the month.	Compliant
B	ICP becomes Inactive part way through a month.	Consumption is only calculated for the Active portion of the month.	Compliant
C	ICP's become Inactive then Active within a month.	Consumption is only calculated for the Active portion of the month.	Compliant
D	ICP switches in part way through a month	Consumption is calculated to include the 1st day of responsibility.	Compliant
E	ICP switches out part way through a month	Consumption is calculated to include the last day of responsibility.	Compliant
F	ICP switches out then back in within a month	Consumption is calculated for each day of responsibility.	No examples
G	Continuous ICP with a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
H	Continuous ICP without a read during the month	Consumption is calculated assuming the readings are valid until the end of the day	Compliant
I	Rollover Reads	Consumption is calculated correctly in the instance of meter rollovers.	Compliant

A manual calculation was also performed using the relevant seasonal adjustment shape files to verify processes.

## 5.5 Proportion of Historic Estimates (rule 40.1)

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

## 5.6 Forward Estimates (rules 34 & 36)

Allocation groups 3 to 6 have to use meter readings to predict consumption to the end of the month. The rules do not prescribe how forward estimates are to be calculated. Pulse was able to explain their processes for calculating forward estimates. They were also able to demonstrate that they retain the necessary information to identify historical and forward estimates.

No issues arose.

## 5.7 Billed vs Consumption Comparison (rule 52)

A sample reconciliation of GAS070 data for August 2020 and billing data at an ICP level was completed to prove that the file included data for all the ICPs at the sample gas gate. No issues arose from this check.

The table below shows a comparison between quantities billed and consumption information submitted to the allocation agent for three years.

<b>Billed vs Consumption</b>				
<b>Year ending</b>	<b>Billed GJ</b>	<b>Submission GJ</b>	<b>Difference GJ</b>	<b>% Difference</b>
May 2020	109,979	106,719	3,264	3.1%
May 2019	99,767	102,575	-2,082	-2.0%
May 2018	75,193	75,195	-2	0.0%
<b>Total</b>	<b>284,939</b>	<b>284,489</b>	<b>450</b>	<b>0.2%</b>

The differences vary over time between positive and negative and are minimal, so no systemic issues arise from this analysis.

## 5.8 Gas Trading Notifications (Rule 39)

A retailer must give notice to the allocation agent when they commence, amend or cease gas supply under a supplementary agreement to a transmission services agreement. They must do this by the third business day of the month following the relevant consumption month of the change.

Pulse had no supplementary agreements.



## 6. Conclusion

The audit found that the Pulse control environment is “effective” for ten of the areas evaluated, “adequate” for four areas and “not adequate” for one area.

Eleven of the eighteen areas evaluated were found to be compliant, four not compliant and three were found not to be applicable. Breaches have already been raised by the Allocation Agent with respect to the accuracy of initial submission files (rule 37.2) and the following additional alleged breaches are raised because of this audit:

<b>Breach Allegation</b>	<b>Rules</b>	<b>Section in this report</b>
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The December 2019 GAS080 reported that 130 out of 4,156 ICPs had not had an actual meter read in the last 12 months	29.4.3	3.3

In addition to recommending that Pulse address the cause of the alleged breaches, the report also makes the following recommendations:

**RECOMMENDATION:** That Pulse review how they construct the report which drives the submission data, to ensure new ICPs are included in initial submission files.

**RECOMMENDATION:** That Pulse review their monthly process for validating allocation groups and in particular review them to identify ICPs that should be moved down allocation groups as well as up.

**RECOMMENDATION:** Pulse should review their methodology for forward estimates and the inclusion of new ICPs in initial files, as ongoing compliance breaches regarding the differences between initial and final submission files are likely to become material if their business continues to grow.

## 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

### 2.1.1 New Connections process

Input Date	Effective Date	ICP	month of first submission file	initial/interim or final?
11/02/2019	23/05/2018	1000572933PGEF9	201902	Final
15/02/2019	5/02/2019	1000580834PGCEB	201903	Interim
11/03/2019	12/02/2019	0000013755GN2E9	201903	Interim
27/02/2019	20/02/2019	1001296943NGF93	201903	Interim
27/02/2019	21/02/2019	1001296939NG85F	201903	Interim
8/04/2019	27/03/2019	1002054777QTD4F	201904	Interim
24/04/2019	20/03/2019	1002059696QT894	201905	Interim
24/04/2019	12/04/2019	1002060708QT060	201905	Interim
4/06/2019	8/05/2019	1002062815QT9D9	209106	Interim
6/06/2019	27/05/2019	0000032336GN5B5	209106	Interim
4/07/2019	17/05/2019	1002063307QT15F	201907	Interim
4/07/2019	22/05/2019	1000581650PG5BA	201907	Interim
18/06/2019	5/06/2019	1000583423PG560	201907	Interim
13/06/2019	10/06/2019	1000582916PGB7F	201907	Interim
21/06/2019	17/06/2019	1002063588QTD9C	201907	Final
2/07/2019	26/06/2019	1002062977QTFA8	201907	Interim
4/07/2019	27/06/2019	1000582890PG6BE	201907	Interim
14/08/2019	9/08/2019	1000584443PGEF0	201909	Interim
12/09/2019	30/08/2019	1001297907NGD9C	201910	Interim
12/09/2019	9/09/2019	1001297703NGA9D	201910	Interim
24/09/2019	16/09/2019	1002068675QTE62	201910	Interim
23/09/2019	17/09/2019	1002066937QTB8D	201910	Interim
24/09/2019	18/09/2019	1001297894NG7BF	201910	Interim
10/10/2019	27/09/2019	1002070048QT526	201910	Interim
1/10/2019	26/09/2019	1002069808QT3CF	201911	Interim
30/10/2019	16/10/2019	1000585642PG912	201911	Interim
23/10/2019	18/10/2019	1000586439PGA7C	201911	Interim
23/10/2019	18/10/2019	1000585654PG230	201911	Interim
5/11/2019	29/10/2019	1002069603QTB10	201911	Interim
2/12/2019	27/11/2019	1001298187NG1BB	201912	Interim
3/10/2019	12/07/2019	1000583830PGF01	202002	Interim

### 2.2 Metering set-up information

<u>Gas Gate</u>	<u>Pulse System</u>	<u>Registry</u>
0001002260NG8DB	HTV11301	HTK08301
0001003007NG146	MMU08001	PPA33201
0001016854NGA42	HTV11301	HTK08301
0001023934NGABA	HTV11301	HTK08301
0001036318NG13A	HTV11301	HTK08301

0001036319NGD7F	HTV11301	HTK08301
0003003527NG464	HTV11301	HTK08301
0003003863NG2C3	HTV11301	HTK08301
0003003900NG8F7	HTV11301	HTK08301
0003011207NGD92	HTV11301	HTK08301
0003012213NG4D5	HTV11301	HTK08301
0003012228NGDF9	HTV11301	HTK08301
0003013889NG209	HTV11301	HTK08301
0003013908NG202	HTV11301	HTK08301
0003013994NGEFB	HTV11301	HTK08301

Hamilton Templeview v Hamilton Te Kowhai have the same gas type, but the temperature used in energy conversion can differ

Meter Pressure

	Pulse System	Registry
0001210040PG088	2.5	1.5
0046142241PG946	1.5	1.2

Error in energy conversion would be below maximum permissible error

Number of dials

	Pulse System	Registry
0000011862GN494	6	5
0000837911QTFCF		4
0001420209QTC8E		4
0001732411QT524	6	5
0001770370PGBF8	5	4
0001900810PG7A9	5	4
0002010482NG488	5	4
0007001116NG273	5	4
0075000826PG199	6	5
1000525224PGD84	4	5

**3.3 GAS080 information**

					% Actual reads 4 mths			% Actual reads 12 mths
PUNZ	Sep-19	5250	4849	4690	96.72	3990	3873	97.07
PUNZ	Oct-19	5285	4860	4694	96.58	4045	3923	96.98
PUNZ	Nov-19	5293	4906	4736	96.53	4110	3984	96.93
PUNZ	Dec-19	5339	4955	4782	96.51	4156	4026	96.87

## Appendix 3 – Responses to Draft Report



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27/08/2021

Julie Langford  
Langford Consulting

**Sent by email**

Dear Julie,

**Draft Reconciliation Audit – Pulse Energy Alliance LP**

1. Pulse Energy Limited (*Pulse*) appreciates the opportunity to comment on the draft Reconciliation and Switching audit reports issued on 11 August 2021.
2. Pulse believes that the draft Reconciliation audit report with regards to Vector's involvement to be accurate.
3. With regards to the Rule 29.3 Vector have initiated changes to our processes so that they monitor movement for Pulse ICPs from Allocation Group 4 to Allocation Group 6 as well as from Allocation Group 6 to Allocation Group 4.
4. Regarding Rule 28.3 Pulse has initiated a change to the process so Pulse monitors discrepancies between what is sent to Vector with what is in the registry. We will look into updating the report that is sent to Vector to include all ICPs that are with Pulse based on what is in the registry. We have also discussed this with Vector. Currently, if Pulse has not included an ICP in their report, Vector will estimate the volume until Pulse send the actual volume to Vector.
5. Regarding Rule 29.4.3, we have amended and improved our meter read process. In our most recent unread meter read report, we only have two meters that have not been read in 12 months and we are continually working to improve this process.
6. If you would like to discuss any of the above matters in greater detail then please do not hesitate to call me on 021 025 46035 or email at [marek.tomecki@pulseenergy.co.nz](mailto:marek.tomecki@pulseenergy.co.nz)

Yours sincerely

Marek Tomecki  
Senior Reconciliation Analyst



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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 Audit – Pulse Energy Alliance LP**

1. Vector Gas Trading Limited (*Vector*) appreciates the opportunity to comment on the draft Reconciliation and Switching audit reports for Pulse Energy Alliance LP (*Pulse*) issued on 11 August 2021.
2. Vector believes that the draft Reconciliation audit report with regards to Vector's involvement to be accurate.
3. With regards to the Rule 29 we have initiated changes to our processes so that we monitor movement for Pulse ICPs from Allocation Group 4 to Allocation Group 6 as well as from Allocation Group 6 to Allocation Group 4.
4. 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](mailto:jim.raybould@vector.co.nz)

Yours sincerely

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

**Jim Raybould**  
Business Service Advisor