

GENESIS ENERGY LIMITED
Participant allegedly in breach

**Record of settlement of alleged breach of rules 26.2.1 and 28.2 of the
Gas (Downstream Reconciliation) Rules 2008**

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Breach notice: 2014-149

Participant allegedly in breach: Genesis Energy Limited

Background

1. Pursuant to regulations 18(3) and 23 of the Gas Governance (Compliance) Regulations 2008, the Market Administrator referred an alleged breach of rules 26.2.1 and 28.2 of the Gas (Downstream Reconciliation) Rules 2008¹ by Genesis Energy Limited² to an investigator, Jason McHerron, for investigation.
2. The alleged breach relates to the temperature data used by Genesis Energy as part of the process for calculating the amount of energy used by its customers. Following a performance audit, the auditor concluded that the temperature data Genesis Energy used in respect of its Energy Online³ ICPs did not correspond closely enough to the location of the gas meter in each case. Genesis Energy has subsequently revised the temperature data it uses, so that it corresponds more closely to the meter location. These changes are likely to bring about greater accuracy in measurement of energy use.

The performance audit of Genesis Energy

3. In August 2014, Steve Woods of Veritek Limited conducted a performance audit of Genesis Energy. Gas Industry Co arranged the audit under rule 65 of the Reconciliation Rules and prepared its terms of reference. Mr Woods completed his report on 5 December 2014.⁴ One of the areas he evaluated as non-compliant with the Reconciliation Rules, and in respect of which he made a breach allegation, was described by him as follows:

GEOL⁵ uses the same temperature for each gas type rather than each gas gate. This approach will achieve compliance for some gas types where the relevant gas gates are all in the same region, but compliance will not be achieved for gas types where the gas gates are in different regions with different temperatures.⁶

4. Mr Woods described his concern in more detail, later in his report, as follows:

¹ Hereafter "Reconciliation Rules".

² Hereafter "Genesis Energy".

³ Energy Online is a separate retail brand of Genesis Energy.

⁴ Hereafter, "Genesis Energy Audit Report". A copy of the Report is available at <http://gasindustry.co.nz/work-programmes/downstream-reconciliation/operations/#audits/>

⁵ GEOL is the participant code for Energy Online non TOU.

⁶ Genesis Energy Audit Report at p 2.

GEOL temperature data is sourced from GENG⁷ data in Gentrack. GEOL uses the same temperature for each gas type rather than each gas gate. These figures are based on the average of the relevant gas gates per gas type. This approach will achieve compliance for some gas types where the relevant gas gates are all in the same region, but compliance will not be achieved for gas types where the gas gates are in different regions with different temperatures. Gas type X covers South Auckland to Whangarei and NIWA's National Climate Database shows temperature differences on the same day and time of 4° Celsius. Gas type T covers Belmont to Hastings and these temperatures can vary by 6° Celsius. Variations greater than approx. 3° Celsius will result in conversion errors greater than 1.1% as allowed by NZS 5259:2004.⁸

Gas types

5. The composition of gas and its calorific value vary at different points on the distribution network, depending on factors such as the field from which the gas is taken, and the extent to which it has been mixed with gas from other fields. Reflecting these variations, the gas on particular pipelines at particular geographical points is labelled as being of a particular "gas type". In some cases, a single gas type can cover a large geographical area. For example, all delivery points north of the Maui pipeline have the same gas type (gas type X), as do all delivery points on the Kapuni South pipeline, which extends from the Kaitoke Compression Station to Wellington, and also branches out to the East as far as Hastings (gas type T).
6. Because of the potentially large temperature range in the area covered by a single gas type, Mr Woods' concern was that the temperature data being used by Genesis Energy's GEOL ICPs did not correspond closely enough to the area where the gas meters for those ICPs are located, possibly resulting in conversion errors greater than are allowed under NZS 5259:2004 and the Reconciliation Rules. Mr Woods recommended that Genesis Energy revise its temperature data accordingly.⁹

Genesis Energy's response

7. Genesis Energy has updated its Energy Online billing engine so that, from 11 May 2015, it stores and applies temperature data at a gas gate level rather than its previous practice of averaging the temperature data for all the gas gates on each pipe line (that is, by gas type).
8. Genesis Energy advises that the new temperature data it is using will meet the Gas Industry Co expectations regarding the temperature factor.¹⁰
9. Genesis Energy demonstrated that there were no temperature differences greater than 3°C between old and new data and therefore that there were no consumption discrepancies greater than the ±1.1% maximum permissible error

⁷ GENG is the participant code for Genesis Energy non TOU.

⁸ Genesis Energy Audit Report at p 23.

⁹ Ibid at pp 5, 23.

¹⁰ Gas (Downstream Reconciliation) Rules 2008 Billing Factors Guideline Note, 22 December 2011, at 5.14-5.17. Paragraph 1.2 of the Guideline Note states that it is "explanatory in nature and is not legally binding."

for conversion allowable under NZS 5259: 2004.¹¹ Genesis Energy's analysis confirmed that the impact of the breach was minor.

10. Genesis Energy accepts that it failed to comply with NZS 5259, and therefore breached rules 28.2 and 26.2.1, because it failed to correctly estimate the temperature of the flowing gas, according to one of the four options available for estimating temperature if actual measurement of the gas temperature is not possible or practical, as set out in 2.7.4.2 of NZS 5259:2004.
11. Genesis Energy chose option (c), a choice approved by the auditor.¹² Option (c) provides:

(c) For compact installations directly connected to short risers and well shaded from direct sunlight, where the temperature of the gas is in the vicinity of ground temperature, the temperature may be estimated from the average ground temperature at 300mm depth.

NOTE – Reliable and relevant climatic temperature data may be used as a basis for estimating average 300mm ground temperatures. This may include published data. For installations with seasonal use only, the data for the relevant season or season should be used.

12. However, averaging data across gas types was not sufficiently “reliable and relevant” to satisfy the requirements of this option. The auditor, in effect, requested Genesis Energy to make the temperature data more “reliable and relevant” by using data that is specific to each gas gate rather than using the average temperatures of all gas gates on the relevant pipeline. Genesis Energy has complied with the auditor's request, and accepts that the temperature data it used previously was not sufficiently reliable and relevant to comply with rules 28.2 and 26.2.1.

Effects on other parties

13. No other parties sought to be joined to this alleged breach. Based on its analysis summarised above, Genesis Energy concluded that there has not been any significant effect on other participants or customers, although it accepts that the changes were required for the incremental improvement of the downstream market.

Settlement

14. Genesis Energy admits that it breached rules 28.2 and 26.2.1 of the Reconciliation Rules.
15. As from 11 May 2015, Genesis Energy has been storing and applying temperature data for its GEOL ICPs at a gas gate level rather than its previous practice of averaging the temperature data for all the gas gates on each pipe line (that is, by gas type).

¹¹ NZS 5259:2004, Table 3, MPE, in-service, rated operating conditions, temperature conversion – other.

¹² Genesis Audit Report at p 23.

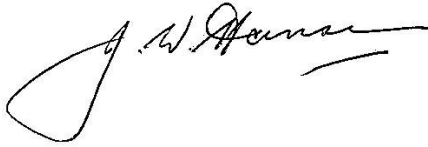
16. Genesis Energy agrees to continue to store and apply temperature data for its GEOL ICPs at a gas gate level, as recommended in the Downstream Reconciliation Performance Audit Final Report dated 5 December 2014.

Acceptance of party to settlement

17. Genesis Energy Limited notified its acceptance of the terms of settlement in writing to the investigator on 6 July 2015.
18. On 3 July 2015, the reporting entity, Steve Woods of Veritek Limited, notified the investigator pursuant to regulation 32(3)(b) of the Gas Governance (Compliance) Regulations 2008 that he did not want to be involved in endeavouring to effect a settlement.

Rulings Panel

I approve this settlement pursuant to regulation 34 of the Gas Governance (Compliance) Regulations 2008.



Hon Sir John Hansen KNZM

Date: 6 July 2015