

**NOVA ENERGY LIMITED**  
Participant allegedly in breach

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**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:** 2014-161

**Participant allegedly in breach:** Nova 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 2008<sup>1</sup> by Nova Energy Limited<sup>2</sup> to an investigator, Jason McHerron, for investigation.
2. The alleged breach relates to Nova's use of insufficiently precise temperature data in its billing process.

**Why is correct temperature data important?**

3. Use of the best available temperature data is important to ensure customers are accurately billed for the energy they use. Gas meters at each ICP measure the volume of gas flowing through the meter. Customers are not billed by volume, however, but instead for the amount of energy they have used. Measured volume is converted to energy quantity, for billing purposes, according to a process set out in the relevant Rules.<sup>3</sup> How much energy a given volume of gas represents depends on a number of factors influencing the molecular content of the gas, one of which is temperature.<sup>4</sup>
4. One of the factors in the conversion formula is a correction factor for temperature. When gas becomes warmer, it expands. When it cools, it contracts. Thus, for a given pressure, the number of gas molecules per cubic metre changes with changes in temperature. Using a temperature factor makes allowance for this effect in converting a measured gas volume to gas volume at a standard temperature of 15°C.<sup>5</sup>
5. Some sites have a temperature sensor located in the gas stream just upstream of the meter allowing a conversion device to make a correction for temperature in real time. For sites without a conversion device adjusting for temperature, it is necessary to estimate the temperature of the gas stream.

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<sup>1</sup> Hereafter "Reconciliation Rules".

<sup>2</sup> Hereafter "Nova".

<sup>3</sup> Reconciliation Rules, rule 28.2, NZS 5259:2002, at 2.7.

<sup>4</sup> See Gas (Downstream Reconciliation) Rules 2008 Billing Factors Guideline Note, 22 December 2011, at 2.1.

<sup>5</sup> Ibid at 5.8.

6. NZS 5259:2004 sets out four options for estimating the temperature of the flowing gas “if actual measurement of the gas temperature is not possible or practical.” Two of the options, options (c) and (d), apply where climatic temperature data is used, rather than records of actual gas temperatures from the same or similar locations. Option (c) uses ground temperature data. Option (d) uses air temperatures.

### **The facts underlying the alleged breach**

7. In July 2014, Steve Woods of Veritek Limited conducted a performance audit of Nova. Mr Woods completed his report on 17 December 2014. One of the areas he evaluated in the audit as non-compliant with the Reconciliation Rules, and in respect of which he made a breach allegation, was that Nova used the same temperature for each gas type rather than each gas gate.<sup>6</sup>
8. Different “gas types” represent the gas on particular pipelines at particular geographical points. In some cases, a single gas type can cover a large geographical area.
9. Mr Woods’ concern is essentially that, because of the potentially large geographical area covered by a single gas type, the temperature data being used by Nova’s ICPs was not specific enough to the area where the gas meters for those ICPs are located. This could result in conversion errors greater than are allowed under NZS 5259:2004 and the Reconciliation Rules.
10. Mr Woods recommended that Nova should refresh the temperature data it uses to make it more specific to the location of the gas gate where it is being applied.

### **Settlement**

11. Nova accepts that it was in breach of rules 26.2.1 and 28.2 of the Reconciliation Rules in relation to its use of the same temperature for each gas type rather than each gas gate.
12. Nova has changed its billing system to use temperature data at a gas gate level in the consumption calculations. The source of the data is the 30 year average monthly temperatures published on the NIWA website for 14 North Island Regions. Nova has applied the data to the gas gates that are in each region.<sup>7</sup>
13. As soon as practicable, Nova will make further revisions to the mean monthly temperature data it uses, by using available ground temperature data, so that it meets the requirements of option (c) of 2.7.4.2 of NZS 5259:2004.

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<sup>6</sup> Gas Downstream Reconciliation Performance Audit Final Report for Nova Energy Limited dated 17 December 2014, available at <http://gasindustry.co.nz/work-programmes/downstream-reconciliation/operations/#audits>, at p 28.

<sup>7</sup> Obtained from [https://www.niwa.co.nz/sites/www.dev2.niwa.co.nz/files/sites/default/files/mean\\_monthly\\_air\\_temperature.xlsx](https://www.niwa.co.nz/sites/www.dev2.niwa.co.nz/files/sites/default/files/mean_monthly_air_temperature.xlsx)

14. Nova will initiate dialogue between an appropriate industry forum and Gas Industry Co on establishing a centralised temperature data set for all retailers to use.

**Were other parties affected by the breach?**

15. No other parties sought to be joined to this alleged breach. Based on an impact analysis, Nova concluded there has not been a significant effect on other participants or customers, although it accepts that these changes are required for the incremental improvement of the downstream market.

**Acceptance of party to settlement**

16. Nova Energy Limited notified its acceptance of the terms of settlement in writing to the investigator on 28 August 2015.
17. On 22 August 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.



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Hon Sir John Hansen KNZM

Date: 3 September 2015