



Pursuant to *section 7(5)* of the Commerce Act (Natural Gas Services) Provisional Authorisation 2005

## **Disclosure of Information**

**14 November 2005**



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## Introduction

- 1.1 The information in subsequent sections of this document is disclosed by Vector Limited pursuant to *section 7(5)* of the Commerce Act (Natural Gas Services) Provisional Authorisation 2005 ("the Authorisation"). The information is an excerpt from the Compliance Statement provided by Vector to the Commerce Commission ("Commission"). In this document, references to Vector relate only to Vector's regulated gas business. The line function services provided by that business are subject to control under the Commerce (Control of Natural Gas Services) Order 2005.
- 1.2 This document describes the methodology used and rationale for determining the prices charged on 1 October 2005 and describes the quality standards that were applicable to the supply of Vector's controlled services on 24 August 2005. The policies and procedures, which Vector uses for monitoring its compliance with those quality standards, are also described.
- 1.3 This document is available for viewing at Vector's head office, 101 Carlton Gore Rd, Newmarket, Auckland. It can also be obtained from Vector's Regulatory Manager, or from [http://www.vectornetworks.co.nz/information\\_disclosure/gas.php](http://www.vectornetworks.co.nz/information_disclosure/gas.php).

## **7(1)(a)(iii) – pricing methodology**

- 5.1 In this section, Vector describes the methodology used and rationale for determining the prices charged on 1 October 2005.
- 5.2 Up to 1 October 2005, Vector's pricing was set in accordance with its publicly disclosed pricing methodology (disclosed on 31 July 2004, pursuant to the Gas (Information Disclosure) Regulations 1997). This document is attached in the appendices. On 1 October 2005, Vector made changes to its pricing to ensure compliance with the Authorisation. These changes are described below.

### **Changes to standard prices**

- 5.3 In the case of standard prices, both the fixed and variable parts of all published Vector Standard Gas Network Line Charges for the Auckland Region (Region 1) that applied on 30 June 2005 were reduced by 9.5%, with effect from 1 October 2005. The rationale behind this was the need to ensure that weighted average prices were, as required by the Authorisation, reduced by 9.5% and, in a separate communication to Vector, the Commerce Commission had signaled it expected all consumers to benefit from the price reduction. The simplest way to ensure this in the time available was to make an across-the-board uniform reduction.

### **Changes to non-standard pricing**

- 5.4 Customers, who receive services subject to an LCA (Line Charges Agreement) or a Delivery Point Request (DPR, an outdated legacy contract, similar to an LCA; Vector stopped using DPRs three years ago) were divided into 4 sub-groups:
- Customers whose overall average price (calculated by dividing total annual charges (both fixed and variable) paid to Vector at historical consumption rates, by those historical consumption rates) before 1 October 2005 was equal to \$0.50/GJ or less. Prices for this group were left unchanged, given their existing low level.
  - Customers on expired DPR agreements, for which the new reduced standard prices would result in a reduction to the overall price, compared to DPR prices. This group was placed on Vector's standard pricing (inclusive of the 9.5% discount that applies from 1 October 2005). This change provided price reductions and new (standard) agreements to consumers whose contracts had expired.

- Customers to whom an LCA offer had been made prior to 30 September 2005, but was not yet accepted or taken effect. As it was not known at the time whether or not these LCA offers would be accepted and come into effect, no further price reductions were made to the LCA offers concerned. Where the customers did not accept the LCA agreement offer in time for it to come into effect by 1 October 2005, either standard pricing (inclusive of the 9.5% discount) applied, or an 11% discount was applied (as described below) to the existing non-standard pricing.
- All other customers on non-standard contracts. Customers in this group had both the fixed and variable line charge components reduced by 11.0% from 1 October 2005. The figure of 11% was set to ensure that the reduction to this group, along side the other reductions described above, was large enough for Vector to meet the overall minimum requirement for weighted average prices to be reduced by at least 9.5%.

## **7(1)(a)(iv) & (v) – quality standards applicable to controlled services; policies and procedures relevant to those standards**

6.1 In this section, Vector describes the quality standards that were applicable to the supply of Vector's controlled services on 24 August 2005, as well as the policies and procedures Vector uses for monitoring its compliance with those standards.

### **Quality standards on 24 August 2005**

- 6.2 Vector has a dedicated performance team, which identifies, monitors and reports to the business on a set of relevant performance measures.
- 6.3 Vector does not make any specific undertakings to its customers on the quality of service, as measured by statistical measures to its customers (other than undertaking to the retailer to maintain sufficient pressure in the pipeline for supply under normal operating conditions). This reflects the fact that, as the Commission found in the gas inquiry, there are very limited quality-related issues or concerns with gas pipeline performance. Therefore, Vector has no quality "standards" as such that it is required to contractually comply with.
- 6.4 In Vector's understanding, however, the term "quality standards" in the Authorisation broadly refers to quality measures that Vector records and targets

internally. Vector considers the following four indicators, used at 24 August 2005 (and used currently), fit the meaning of “quality standard”:

- System Average Interruption Duration Index (SAIDI)
- System Average Interruption Frequency Index (SAIFI)
- Public Reported Escapes (PRE)
- Third Party Interference Damage (TPID)

6.5 Vector notes that the description of these measures pertains to self-imposed internal measures and targets. The internal targets, noted below, are set with reference to historical performance of the network and any expected changes to that performance. It cannot automatically be assumed that internal targets are suitable for regulatory purposes, including given the limitations of some measures that would make requiring ‘hard-and-fast’ compliance unfair. Detailed consideration of appropriate regulatory targets will, therefore, be necessary in future to the extent the Commission wishes to regulate quality performance. Any such consideration would also need to take into account the price-quality tradeoffs associated with any price reductions imposed by the Commission, as these affect Vector’s ability to meet any quality standards.

#### System Average Interruption Duration Index (SAIDI)

6.6 Vector uses this measure to determine overall reliability, indicated by customer minutes off supply (availability of supply). SAIDI measures the total minutes, on average, that an individual customer has experienced an interruption in gas supply over the reporting period. SAIDI is a measure of unplanned interruptions, including third party damage, with the exception of damage and interruptions directly resulting from unplanned interruptions on the transmission system. Given this definition, it must be borne in mind that SAIDI is not necessarily a true and accurate indication of reliability of gas distribution per se. SAIDI is calculated by dividing the product of the number of interrupted customers and the duration of the interruption (in minutes), by the total number of customers connected to the network and further dividing by 1000.

6.7 For the year ending 30 June 2005, Vector’s SAIDI target was 108 minutes per 1000 customers.

### System Average Interruption Frequency Index (SAIFI)

- 6.8 SAIFI measures the average number of occasions per year that an individual customer has experienced an interruption, including interruptions due to third party damage, but excluding those directly resulting from unplanned interruptions of the transmission system. Given this definition, like for SAIDI, it must be borne in mind that SAIFI is not necessarily a true and accurate indication of reliability of gas distribution per se. SAIFI is calculated by dividing the total number of interruptions on the network in the relevant year by the total number of customers connected to the network on average over that year.
- 6.9 For the year ending 30 June 2005, Vector's target SAIFI was 3.9 interruptions per 1000 customers.

### Public Reported Escapes (PRE)

- 6.10 Vector uses PRE as its primary technical network service quality measure for operational purposes, as it is a critical safety measure and a reliable indicator of the condition of the network. This measure is impacted by a number of factors, including the effectiveness of renewal strategies, the condition and composition of assets, the level of odorant and the extent and effectiveness of leakage surveys.
- 6.11 PRE is calculated by adding up the total number of confirmed escapes of gas reported (excluding third party interference damage) on the entire distribution system (including mains, service pipes, valves, pressure stations and gas measurement systems) each year and dividing this by the number of 1000 km of gas mains and service pipes in use in that year.
- 6.12 The monitoring of PRE events, the determination of their causes and the implementation of programmes directed at reducing them are all internationally recognised as fundamental to improving safety and reliability of gas networks.
- 6.13 For the year ending 30 June 2005, Vector's target was 190 PRE per 1000km of system in use.

### Third Party Interference Damage (TPID)

- 6.14 External damage to networks is a significant cause of gas escapes and customer supply interruptions. The levels of third party interference damage provide some indication of the network operator's level of success in communicating awareness

to those who control and/or are directly engaged in any activities that put gas networks at risk. Understanding this can also be useful in netting out external-related damage to get a more accurate picture of gas distribution performance. It is useful in reflecting on the quality of mains and service records, effectiveness of system supervision, effectiveness of penalties against those causing damage and effectiveness of damage prevention strategies.

- 6.15 TPID is calculated by adding up the total annual number of occurrences, where damage requiring repair has been caused to mains and services by third parties and dividing this by the number of 1000 km of gas mains and service pipes in use in that year.
- 6.16 For the year ending 30 June 2005, Vector's target was 86 incidents per 1000km of system in use.

## **Relevant policies and procedures for monitoring compliance with standards**

### SAIDI

#### *Data collection procedure*

- 6.17 Vector's call centre is responsible for receiving and dispatching all calls regarding network faults that may cause the end user's gas supply to be interrupted. At the time the end user or the public report the fault, Vector's call centre notifies Siemens and issues a job request. Siemens receive the request and notify Ace Gas (Siemens contractor) to respond.
- 6.18 A site investigation by Ace Gas confirms the type of fault (if any) and the fact of the fault is then recorded on an incident form. The total number of customers that have no gas as a result of the incident is noted on the incident form (indicated by the number of ICPs that need to be purged of air subsequent to the interruption and re-lighted) and each customer is allocated a default 30 minute loss of supply duration. Where the time taken to restore supply is longer than 30 minutes, this is recorded on a case-by-case basis.
- 6.19 The information supplied by Ace Gas is manually transferred to an Excel spreadsheet, which records the total affected customers and the resulting duration for each incident. Siemens then transfer this detailed information to another spreadsheet, which records the total customer minutes lost as a result of

the incident and sends this information to Vector on a monthly basis. Vector then uses this information to calculate SAIDI.

*Vector initiatives implemented to reduce SAIDI*

- 6.20 Vector uses a variety of methods to maintain supply to customers, or (where lost) restore it as soon as possible, to minimise SAIDI. These include the use of by-pass repair techniques to maintain supply while repairs are carried out on pipes, use of portable CNG bottles and implementing several reinforcement projects to ensure continuity of supply.

## SAIFI

*Data collection procedure*

- 6.21 The process for capturing the number of interruptions is part of that for capturing SAIDI data, as described above.

*Vector initiatives implemented to reduce SAIFI*

- 6.22 The methods used to minimise SAIDI also have the effect of minimising SAIFI by minimising the possibility of loss of supply as a result of leaks (i.e. attempting to maintain supply through use of portable CNG bottles and by-pass repair techniques, as well as reinforcing the network to ensure continuity of supply).

## PRE

*Data collection procedure*

- 6.23 Vector's call centre is responsible for receiving and dispatching all calls regarding network faults. Where a member of the public reports a fault, Vector's call centre notifies Siemens and issues a job request. Siemens receive the request and notify Ace Gas to respond. Upon attending to site, Ace Gas confirms whether or not a fault has occurred, and if so, records this as a public reported incident. Ace Gas also check whether the leak is a result of third party interference damage (if so, the fault is recorded as a TPID, rather than a PRE). Ace Gas then manually complete a network damage report form and indicate the appropriate closure code (PRE). This form is sent to the relevant Siemens area manager for processing.

- 6.24 Each month, the area manager requests from Ace Gas a list of network faults and extracts the information relating to PRE incidents. The details of each PRE are recorded manually in an Excel spreadsheet, which is then used to populate a table that is sent to Vector. Vector uses this information to calculate PRE.

*Vector initiatives implemented to reduce PRE*

- 6.25 Vector has implemented a low pressure pipeline replacement program (to reduce escapes from low pressure pipelines) and is undertaking proactive leakage surveys to identify leaks at an earlier stage so subsequent action can be taken.

TPID

*Data collection procedure*

- 6.26 Vector's call centre is responsible for receiving and dispatching all calls regarding network faults. When a fault is reported, Vector's call centre notifies Siemens and issues a job request. Siemens receive the request and notify Ace Gas (Siemens contractor) to respond. Upon attending to site, Ace Gas confirms whether the fault is a third party damage incident. Ace Gas manually complete a network damage report form and indicate the appropriate closure code (TPID). This form is sent to the relevant Siemens area manager for processing.
- 6.27 Each month, the area manager requests from Ace Gas a list of network faults and extracts the information relating to TPID. The details of each incident are recorded manually in an Excel spreadsheet, which is then used to populate a table that is sent to Vector. Vector then uses this information to calculate TPID.

*Vector initiatives implemented to reduce TPID*

- 6.28 Vector has published and issued to several thousand contractors (specifically targeted at contractors that undertake activities likely to put utility networks at risk) a guide for working safely around Vector and UnitedNetworks electricity, gas and communications networks, in the form of a handy pocket sized booklet. Vector has also participated in an industry review to better understand the underlying causes and effects of TPID.