Victorian Gas Distribution Business Comparative Performance Report 2008

May 2010

AUSTRALIAN ENERGY REGULATOR

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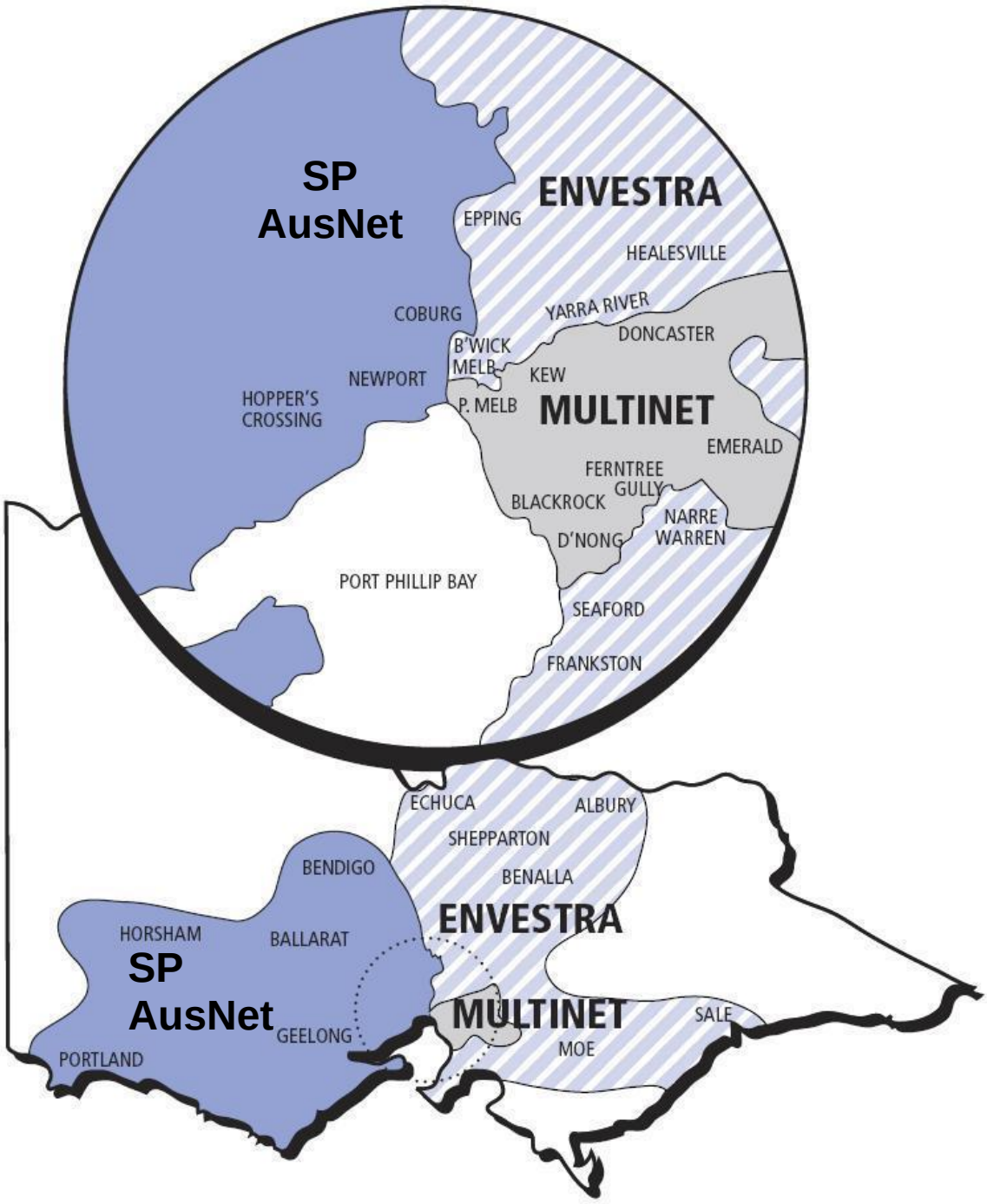
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Preface

The role of the Australian Energy Regulator

From July 1 2008, the Australian Energy Regulator (AER) became the economic regulator for covered natural gas transmission and distribution pipelines in all states and territories (except WA). As part of the transition to national regulation of gas distribution, the AER is now responsible for exercising certain powers and functions previously undertaken by the Essential Services Commission of Victoria (ESCV) for the Victorian jurisdiction.

The new responsibilities are conferred on the AER by the operation of the *National Gas (Victoria) Act 2008* (*NGVA*) in accordance with the *Trade Practices Act 1974* and the *Australian Energy Market Agreement*.

The current Victorian distribution network revenue and service level targets were set by the ESCV for the 2008 – 2012 regulatory control period. The *NGVA* delegates power to the AER to administer the ESCV's *Gas Access Arrangement Review 2008 – 2012* (GAAR) under the Victorian regulatory framework. This transfer occurred from 1 July 2008. The AER will be setting the new revenue and service levels for the 2013 – 2017 regulatory control period under the *National Gas Rules 2008*.

In addition to the administration of the GAAR, the *NGVA* confers economic regulatory functions, powers and duties on the AER regarding compliance monitoring and enforcement of the *Gas Distribution Licence* conditions of the Victorian gas distribution network service providers (DNSPs). This includes monitoring the service performance levels of the DNSPs. Public reporting of the performance of these monopoly businesses is one of the key elements that underpin the economic regulatory frameworks under both the current Victorian system and the national framework.

The AER intends to continue the ESCV's reporting format for the duration of the 2008 – 2012 GAAR to facilitate comparison of DNSPs over time. Therefore, the key performance measures used by the ESCV in the previous performance reports will continue to apply. The AER has added an additional financial performance measure: pre-tax return on assets. This additional measure provides an understanding of the DNSP's overall financial performance.

Sections of this report are taken from the ESCV's 2007 Gas Distribution Businesses Comparative Performance Report.[1]

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[1] The following sections are taken directly from the ESCV's 2007 Gas Distribution Businesses: Comparative Performance Report: the start of sections 2 – 6; the definition of performance measures; the appendix and the format of the report.

This report is prepared by the AER under the Victorian regulatory framework as a continuation of the series of performance reports previously published by the ESCV.

Previous reports published by the ESCV are available from the ESCV's website: http://www.esc.vic.gov.au/public/Energy/Regulation+and+Compliance/Performance+Reports/.

Purpose of this report

This report details the performance of the three gas DNSPs in Victoria: Envestra, Multinet and SP AusNet for the 2008 calendar year.[2]

This report allows the financial performance, network reliability and quality of gas supply to be compared between the Victorian DNSPs. The financial performance of the DNSPs are compared against the measures and forecasts established under the 2008 GAAR.

The purposes of this report are:

- to promote transparency and assist with setting forecasts in future GAARs;
- to encourage competition between gas DNSPs through comparison;
- to provide an incentive for DNSPs to improve performance relative to one another; and
- to provide customers with information about the services they are receiving.

[2] The Energy Retailers performance report can be found on the ESCV website at www.esc.vic.gov.au.

1 Summary

This section of the report contains a summary of the key findings of the Victorian gas DNSPs' financial performance, reliability of supply, network integrity and customer service.

Annual financial and related non-financial information have been collected from each DNSP under the ESCV's *Gas Industry Guideline No. 17: Regulatory Accounting Information Requirements*. This data has been compared with the forecasts established in the 2008 GAAR by the ESCV. This report covers the first year of the new regulatory period.

Historical data from the 2003 – 2007 regulatory period, which was previously collected and reported by the ESCV, has also been included in this report for comparability.

1.1 Financial performance

The amount of Tariff V energy distributed in Victoria in 2008 was 10 per cent higher than in 2007 and also represented the highest amount for the 2004 – 2007 period. Both SP AusNet and Multinet distributed more Tariff V energy than forecast for 2008: SP AusNet by 4 per cent and Multinet by 3.3 per cent. In contrast, Envestra distributed 1.5 per cent less Tariff V energy than forecast. For Tariff D energy (which is not forecasted), the maximum hourly quantity (MHQ) decreased by 3 per cent and the total energy distributed increased by 29 per cent.

In 2008 the aggregate revenue across all Victorian DNSPs was 1.5 per cent above the revenue forecast in the 2008 GAAR. Consistent with the results of Tariff V energy distribution, revenue for SP AusNet and Multinet was higher than forecast: Multinet by 2.2 per cent and SP AusNet by 2.9 per cent. Envestra reported revenue 0.9 per cent below forecast.

Overall, operating expenditure increased by 11 per cent, and was 1.1 per cent above that forecast in the 2008 GAAR. Multinet's and Envestra's operating expenditure were greater than forecast by 11.9 per cent and 2.3 per cent respectively. SP AusNet's operating expenditure was 10.5 per cent below forecast.

All of the DNSPs' capital expenditure for 2008 was below the forecast in the 2008 GAAR: Envestra by 34.3 per cent; Multinet by 17.5 per cent; and SP AusNet by 9.7 per cent. Envestra advised that the reason for underspending capital expenditure in 2008 was due to curtailing capital expenditure temporarily due to the global financial crisis. SP AusNet commented that tight budgetary controls, synergies created as a result of the TXU and SP PowerNet merger, deferral of expenditure on information technology and a higher forecast than actual costs incurred in changing gas meters were the reasons for its variance. Multinet advised that capital

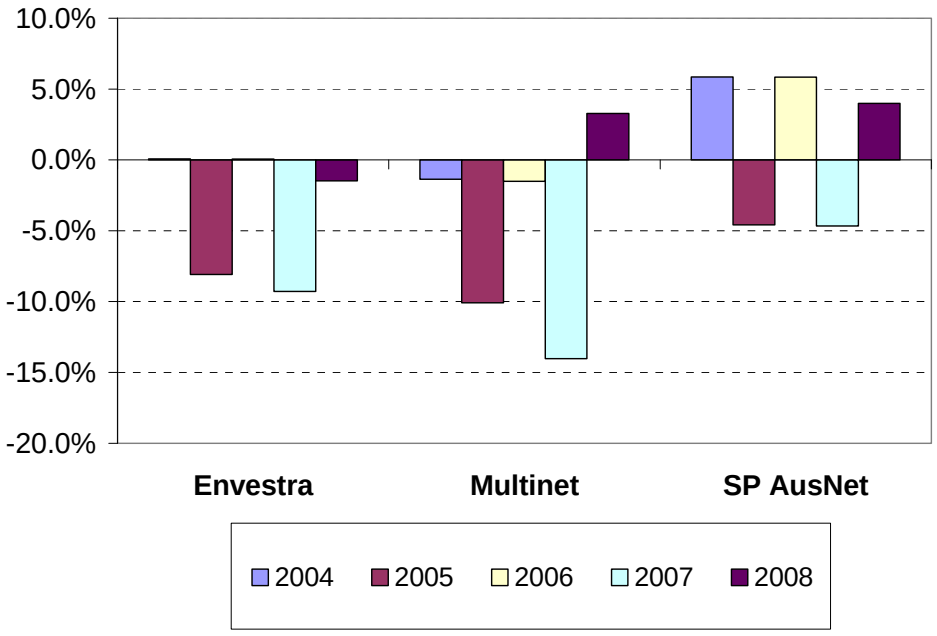
expenditure was lower than forecast due to lower than forecast spend on information technology and pipe-works projects.

The AER has included the DNSPs' pre-tax return on assets as a measure of financial performance for 2008.[3] This is the first report that will include the DNSPs' pre-tax returns on assets. In 2008 SP AusNet and Multinet reported a higher pre-tax return on assets than forecast by 0.98 per cent and 0.05 per cent respectively. Envestra reported lower returns on their assets than forecast by 0.14 per cent.

The following tables and charts show the DNSPs' Tariff V energy distribution and pre-tax return on assets, revenue, operating expenditure and capital expenditure compared with the forecasts in the 2008 GAAR.

Figure 1.1 Tariff V energy distributed (TJ) by distributor by year

Percentage difference between actual Tariff V energy distributed and forecast Tariff V energy distribution



[3] Pre-tax return on assets is earnings before interest and tax.

Table 1.1 2008 pre-tax return on assets

Actual pre-tax return on assets compared with forecast pre-tax return on assets in the 2008 GAAR

	Forecast pre-tax return on assets	Actual pre-tax return on assets	Percentage difference between actual and forecast pre-return on assets
Envestra	7.42%	7.28%	- 0.14%
Multinet	7.98%	7.93%	0.05%
SP AusNet	7.61%	8.60%	0.98%

Figure 1.2 Total distribution revenue by distributor

Percentage difference between 2003 and 2008 GAAR forecast and actual for 2004 to 2008

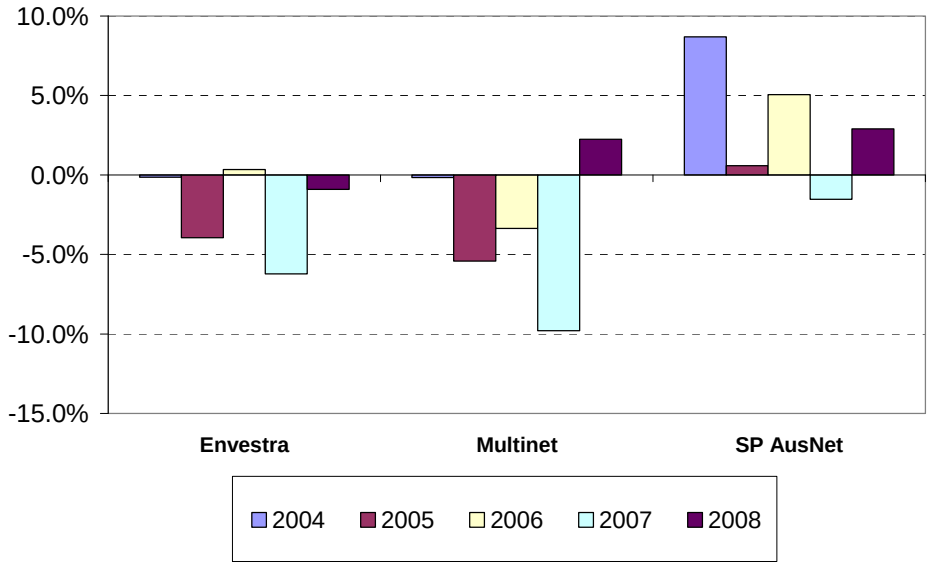


Figure 1.3 Total operating expenditure by distributor

Percentage difference between 2003 and 2008 GAAR forecasts and actual for 2004 to 2008

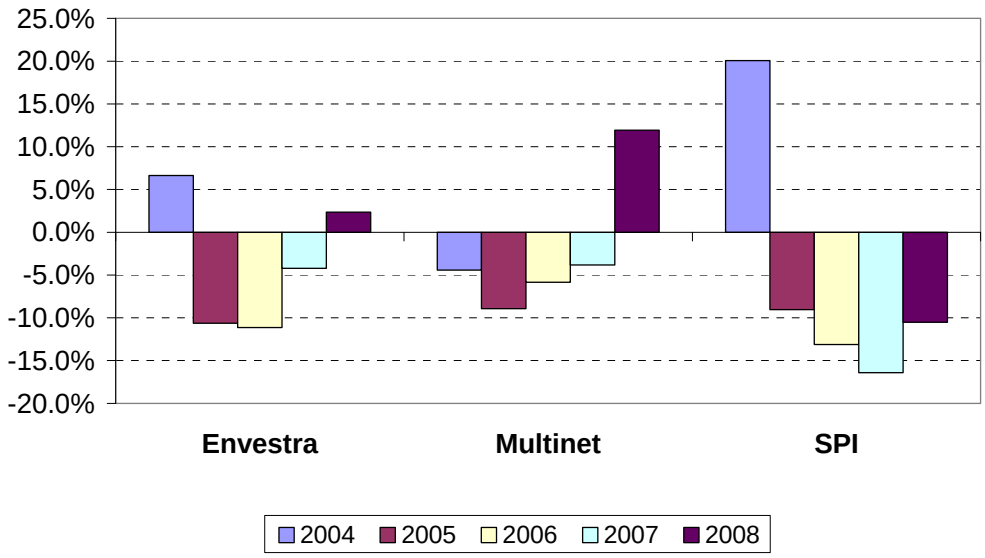
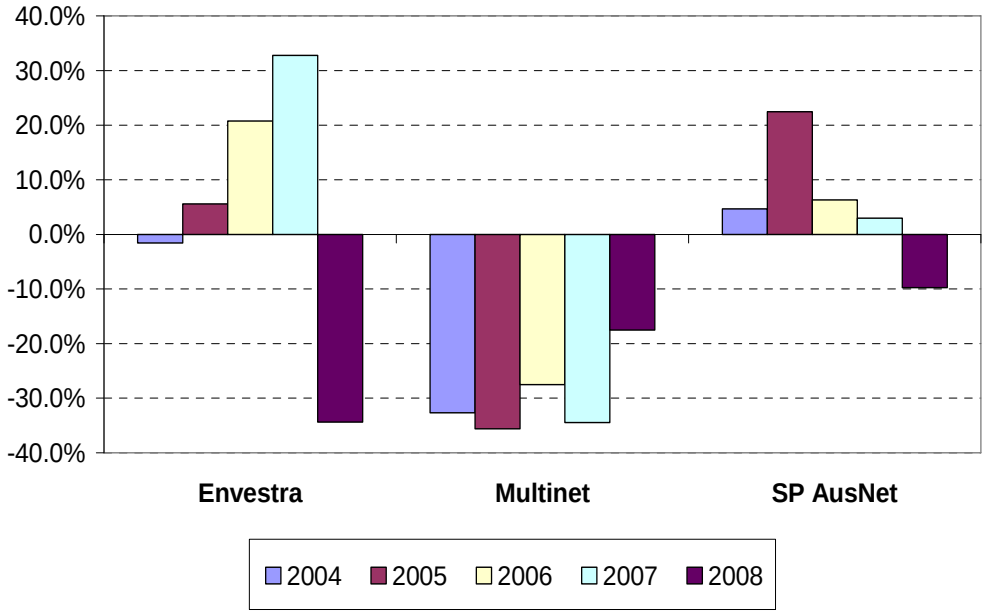


Figure 1.4 Total net capital expenditure by distributor

Percentage difference between 2003 GAAR forecast and actual 2004 to 2007



Note: A positive percentage represents capital expenditure higher than forecast in the 2003 and 2008 GAARs

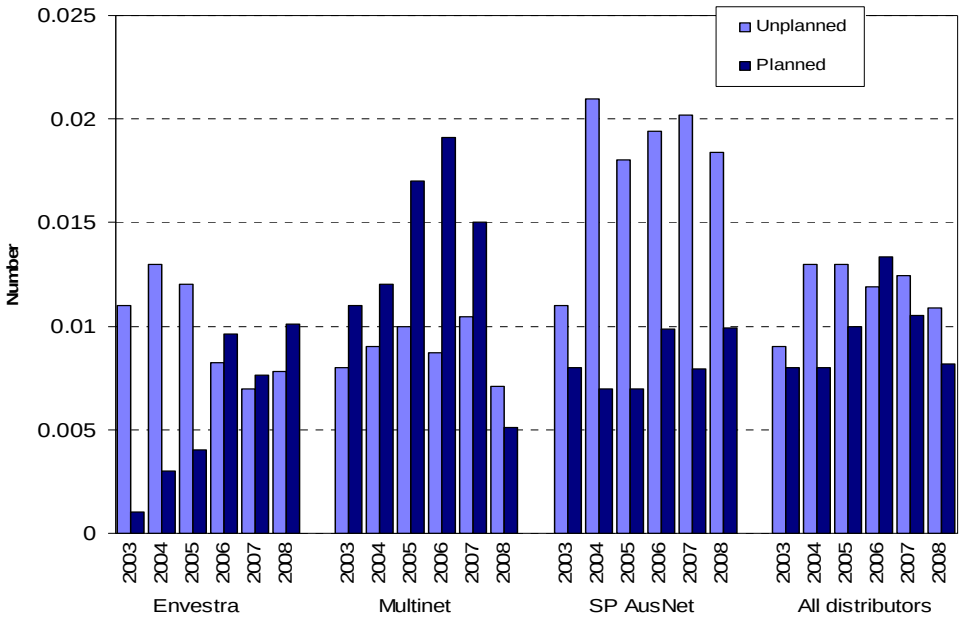
1.2 Reliability of supply

Overall gas supplies were reliable in 2008. The total number of supply interruption frequency per customer was 0.019, reflecting a 17 per cent decrease when compared to 2007. This represents one supply interruption every 53 years for the average Victorian customer.

There was some variation in the number of supply interruptions between the DNSPs. Once in 35 years for SP AusNet's customers, once in 75 years for Multinet's customers and once in 62 years for Envestra's customers.

Figure 1.5 displays the average number of supply interruptions per customer for 2008. Further information relating to reliability of supply is provided in section 4 of this report.

Figure 1.5 Average number of interruptions per customer (SAIFI)



1.3 Network integrity

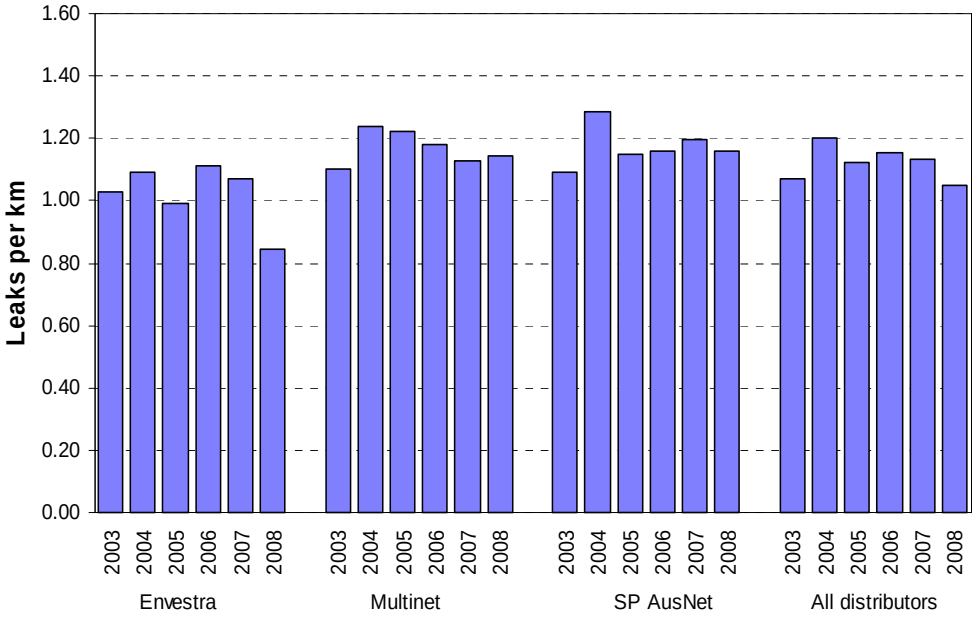
The ESCV in conjunction with Energy Safe Victoria (ESV), the body charged with regulating gas safety, collected network integrity performance indicators. Network integrity key performance indicators reflect the DNSPs' operational and maintenance activities.

Figure 1.6 shows that the total number of publicly reported and repaired gas leaks declined by 7 per cent in 2008. This was the lowest amount of publicly

reported and repaired leaks since 2003. Mains damages incidents and the number of incidents per thousand customers both increased by 1 per cent.

DNSPs have previously advised that more active enforcement of regulations, industry consultation and advertising of the 'Dial Before You Dig' service has contributed to maintaining the incidence of damage to gas supply network assets at a relatively low level.

Figure 1.6 Repaired leaks per kilometre of gas pipe



1.4 Customer Service

DNSPs are required to report on their response time to customer calls against targets established by the ESCV.[4] Table 1.2 shows that both SP AusNet and Multinet were able to exceed all of the targets for responding to customer calls. Envestra's response times to metropolitan customers during and after business hours were both 1 per cent below target.

[4] Metropolitan target – to respond to 95 per cent of calls within 60 minutes during business hours and 90 per cent within 60 minutes after hours; Non-metropolitan target – to respond to 90 per cent within 60 minutes, all hours.

Table 1.2 Response to customer calls

Percentage of response meeting target

		Metro calls	Country calls
	Business hours (target: 95%)	After hours (target: 90%)	(target: 90%)
Envestra	94%	89%	97%
Multinet	97% [a]	97% [a]	NA [b]
SP AusNet	98%	98%	98%

Note [a] Multinet does not differentiate between business hours and after hours. Multinet instead targets a 95 per cent response rate for all hours.
[b] Multinet does not have country customers.

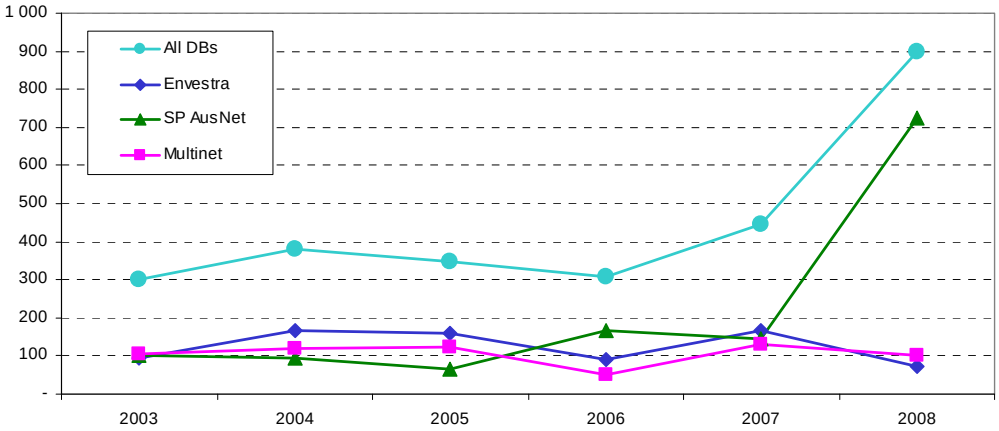
In 2008, SP AusNet paid the largest amount of guaranteed service level (GSL) payments ($126 880), which was an 858 per cent increase from 2007. The majority of these payments were made for failure to connect a residential customer within two days of the agreed date. SP AusNet commented that the significant increase was due to the recall of faulty up stands.[5] The recall resulted in 636 GSL payments for failing to connect a residential customer within two days of the agreed date.

Envestra made the lowest amount of GSL payments ($8080), which was a 59 per cent decrease from 2007. Multinet decreased the total amount of GSL payments by 3 per cent from 2007. Figure 1.7 shows the DNSPs' GSL payment trend for the 2003 – 2008 period.

[5] A service 'up stand' refers to the connection between the service to the meter inlet and the customers' fitting line or (piping) to permit the turn on and commissioning of the fitting line and appliances.

Figure 1.7 GSL payments made by distributors, 2004-2008

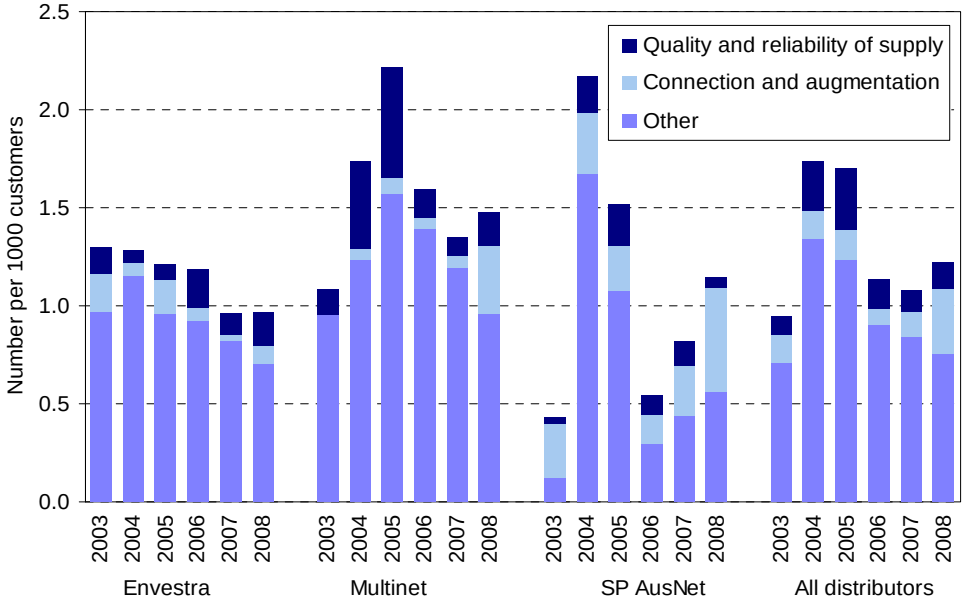
Total number of payments



In 2008 the total number of customer complaints increased by 13 per cent. Complaints made to SP AusNet about connection and augmentation increased by 40 per cent. This increase related to the increase in GSL payments made by SP AusNet for connections. Figure 1.8 shows the number of complaints received by DNSPs for the 2003 – 2008 period.

Figure 1.8 Complaints received by distributors

Number per 1000 customers



1.5 Format of Report

The remainder of the report is structured as follows:

- Part 2 details information sources and the accuracy of the information reported to the AER.
- Part 3 outlines DNSPs' reported financial performance against the forecasts made in the 2008 GAAR.
- Part 4 covers the reliability of gas supply to customers, providing information about the measures of supply reliability and the performance of the DNSPs in their supply areas.
- Part 5 provides an assessment of networks from a safety aspect, covering gas leakages, third party damage and replacement of aged assets.
- Part 6 sets out the levels of customer service achieved by the DNSPs and the levels of complaints received by the DNSPs.

2 Source of information and background information

This section covers the sources of information and other background information relevant to the preparation and understanding of this report.

2.1 Sources of information

This comparative performance report is based on:

- the regulatory account statements lodged by the DNSPs
- information provided by the DNSPs on network performance and customer-service statistics
- information from Energy Safe Victoria (ESV)
- complaint information supplied by the Energy and Water Ombudsman (Victoria) (EWOV)
- performance reports for the prior regulatory period 2003 – 2007 prepared by the ESCV.

2.2 Accuracy of financial information submitted by the distributors

The financial performance of DNSPs is based on the regulatory account statements submitted by the businesses under the ESCV's *Guideline 17*.

The financial information submitted in accordance with the *Guideline* is still subject to audit review. To ensure timely publication of this report, financial information reported by the DNSPs under the *Guideline* has been used. It should not, however, be assumed that inclusion of the financial information of individual DNSPs in this report indicates the AER's acceptance of this information for regulatory analysis purposes.

2.3 Accuracy of service performance indicators

All gas DNSPs undertook an independent compliance audit in accordance with the ESCV's *Gas Industry Guideline No. 16—Regulatory audits of distribution businesses*,[6] as required under their licence conditions. The

[6] Essential services Commission, *Summary report: Regulatory audits of gas distribution businesses*, 2006.

2009 audit was prepared by the AER and focused on the DNSPs' key performance indicator accuracy during the 2008 calendar year. The audit report concluded that overall businesses achieved a ± 5% or better accuracy which is an acceptable level.

3 Financial performance

This section provides an overview of the Victorian gas DNSPs' actual financial performance – that is, their costs, revenues and returns on assets.

The ESCV's 2008 GAAR established forecasts for revenue, operating expenditure, net capital expenditure and pre-tax return on assets for Victorian gas DNSPs for the regulatory period 1 January 2008 to 31 December 2012.

The tariffs for regulated gas distribution services that can be charged by each DNSP during a regulatory control period recognise a number of costs, which include:

- the forecast (benchmark) expenditure associated with the delivery of the regulated distribution services[7]
- the forecast (benchmark) rate of return deemed necessary to attract investment capital to the regulated distribution activities.

As part of the 2008 GAAR, the ESCV has in place an efficiency incentive framework which is intended to encourage DNSPs to achieve efficiency gains. Under the ESCV's incentive framework, DNSPs who perform better than cost benchmarks are entitled to retain benefits for the regulatory period. DNSPs that underperform face a cost penalty for the regulatory period. The efficiency incentive framework encourages DNSPs to share efficiency gains with customers through lower prices in the long term.

3.1 Inflation adjustment

Consistent with the 2008 GAAR this report presents forecasts and actual results as the dollar value as at 1 July 2006.

3.2 Energy distributed

The level of energy distributed by each DNSP is primarily determined by the annual average temperature and the number of customers connected to the distribution network.[8] Energy distributed — measured in joules — is an important consideration when assessing the financial performance of each DNSP as this has a direct impact on the amount of revenue received by the DNSP.

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[7] DNSPs' costs and revenues associated with the implementation of full retail competition before 2008 are not included in this report.

[8] Customer numbers are detailed in table F.1 in appendix F.

This section reports on the levels of the energy distributed according to the types of distribution tariff.

DNSPs currently charge two types of tariffs (known as Haulage Reference Tariffs):

- Volume Tariff V, which applies to small customers
- Demand Tariff D (including Tariff M), which applies to larger customers.

Details of these tariffs are contained in appendix A.

3.2.1 Tariff V

Table 3.1 shows the total Tariff V energy distributed by DNSPs from the 2004 to 2008 period. Across all DNSPs there was a 10 per cent increase in Tariff V energy distribution in 2008.

According to the ESCV's prior comparative performance reports, Tariff V energy distribution declined by 7 per cent from 2004 to 2005, increased by 12 per cent from 2005 to 2006 and declined again by 9 per cent from 2006 to 2007. The level of energy distributed in 2005 was relatively low due to a mild winter.

In 2008 Multinet distributed more energy than forecast in the 2008 GAAR, unlike in the 2004 – 2007 period where it consistently produced below the 2003 GAAR forecasts. Consistent with previous years, Envestra distributed less Tarrif V energy than forecast.

Multinet advised that actual Tariff V energy distributed was greater than forecast due to colder weather conditions. Multinet also advised that the reason for distributing Tariff V energy below forecast from 2004 to 2007 was because the ESC had not accepted Multinet's forecast proposal: that Tariff V energy distribution would decline due to warmer weather conditions and energy efficiency in housing would increase.

SP AusNet advised that winter temperatures are the drivers of Tariff V energy distribution. SP AusNet pointed out that actual volumes of Tariff V energy distributed have varied as much as 14 per cent from year to year. In addition it was advised that policy impacts, number of customer connections, and changes in the usage of gas appliances influence the gas usage trend.

Envestra advised that Tariff V energy distribution is dependent upon the weather. It also commented that the ESCV had not accepted Envestra's forecast of declining average gas consumption and Envestra considered that the Tariff V energy distribution forecasts were over-estimated.

Table 3.1 Tariff V energy distributed in terajoules (TJ)

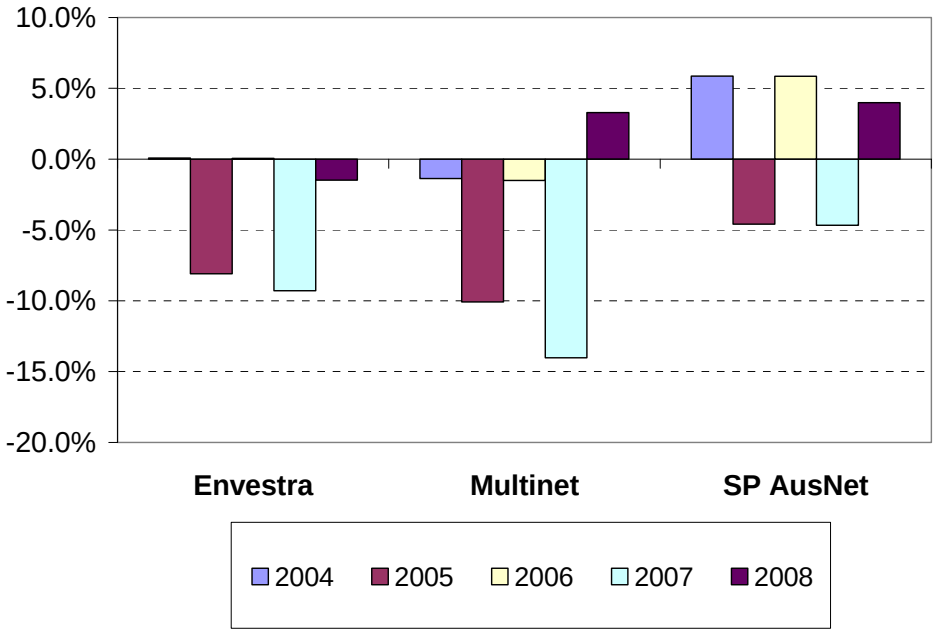
By distributor and total industry, 2004 to 2008

	2004	2005	2006	2007	2008
Envestra	32 000	30 100	33 400	31 000	34 000
Multinet	45 900	42 500	47 300	41 800	45 800
SP AusNet	31 500	29 200	33 300	30 900	34 600
All distributors	109 300	101 800	114 000	103 600	114 400

Figure 3.1 details the variance (percentage difference) of each DNSP's actual annual Tariff V energy distributed compared with the 2003 GAAR forecasts for the period 2004 to 2007 and the 2008 GAAR forecasts for the period 2008 to 2012. Figure 3.1 shows that in 2008 SP AusNet and Multinet distributed more energy than forecast, while Envestra distributed below forecast.

Figure 3.1 Tariff V energy distributed (TJ) by distributor by year

Percentage difference between actual Tariff V energy distributed and forecast Tariff V energy distribution



3.2.2 Tariff D

Tariff D is based on the maximum hourly quantity (MHQ) demanded rather than the volume of energy distributed. Consequently, for the 2003 GAAR the ESCV did not request forecasts for Tariff D consumption. It is therefore not possible to provide information regarding differences between the forecast and actual Tariff D consumption.

Table 3.2 Tariff D energy distributed and demand

Total energy (TJ) and maximum hourly quantity (MHQ) by distributor and total industry, 2004 to 2008

	2004		2005		2006		2007		2008	
	TJ	GJ MHQ	TJ	GJ MHQ	TJ	GJ MHQ	TJ	GJ MHQ	TJ	GJ MHQ
Envestra	25 600	6 740	24 700	6 649	23 600	6 601	17 700	6 629	22 000	6 375
Multinet	14 700	4 331	13 900	3 975	14 200	3 964	14 900	3 887	12 575	3 534
SP AusNet	40 000	10 832	37 900	1 091	38 000	9 995	38 700	9 911	40 700	9 951
All distributors	**80 300**		**76 500**		**75 900**		**71 300**		**75 275**	

Note: Columns may not total due to rounding.

Table 3.2 shows that Tariff D energy distributed in terms of TJ and GJ MHQ by each DNSP for the 2004 to 2007 period was decreasing. In 2008, there was an increase in Tariff D energy distributed in TJ by Envestra and SP AusNet, however, Envestra's energy distributed in GJ MHQ decreased. Multinet's Tariff D energy distribution decreased in both TJ and GJ MHQ in 2008.

3.3 Return on assets

The AER has included pre-tax return on assets as an additional measure of financial performance for 2008.[9] This measure was not included in the ESCV's previous reports and this will be the first report to compare the DNSP's returns on assets.

Return on assets is a measure of the DNSP's overall financial performance. An increase in revenue or reduction in operating expenditure or a reduction in capital expenditure increases the DNSP's return on assets. The DNSPs'

[9] Pre – tax return on assets is earnings before interest and tax.

actual pre-tax returns on assets have been compared with the pre-tax returns on assets forecast in the 2008 GAAR.[10]

Table 3.3 shows that in 2008 SP AusNet and Multinet reported actual higher pre-tax return on asset than forecast – by 0.98 per cent and 0.05 per cent respectively. Envestra reported pre-tax return on assets below forecast by 0.14 per cent.

Table 3.3 2008 pre-tax return on assets

Actual pre-tax return on assets compared with forecast pre-tax return on assets in the 2008 GAAR

	Forecast pre-tax return on assets	Actual pre-tax return on assets	Percentage difference between actual and forecast pre-return on assets
Envestra	7.42%	7.28%	- 0.14%
Multinet	7.98%	7.93%	0.05%
SP AusNet	7.61%	8.60%	0.98%

3.4 Revenue

The DNSP's revenues are determined by the average customer consumption and the total number of customers.[11] Table 3.3 summarises the distribution revenue earned by each DNSP during the 2004 to 2008 period.[12]

Table 3.3 illustrates that in 2008 the aggregate revenue earned by the DNSPs was 11 per cent higher than in 2007. Compared with 2007, Envestra's revenue increased by 13 per cent; Multinet's revenue increased by 7 per cent and SP AusNet's revenue increased by 13 per cent.

[10] The ESCV's approach to calculating return on assets is: weighted average cost of capital + efficiency amounts carried over (from the Efficiency Carry over Mechanism) + tax wedge (cost of tax payable by distributors).

11 Customer numbers are detailed in table F.1 in appendix F.

12 Revenue figures include ancillary reference services.

Table 3.3 Distribution revenue ($ million, real 2006)

By distributor and total industry, 2004 to 2008

	2004	2005	2006	2007	2008
Envestra	122.8	119.2	125.5	118.3	133.8
Multinet	152.7	148.0	154.4	146.8	157.4
SP AusNet	143.8	137.4	148.4	143.3	161.7
All distributors	**419.3**	**404.6**	**428.3**	**408.4**	**453.1**

Note: totals may not total due to rounding.

Figure 3.2 shows the variance of each DNSP's total distribution revenue compared with the 2003 GAAR forecasts for the 2004 to 2007 period and the 2008 GAAR forecasts for the 2008 to 2012 period. It shows that in 2008 both Multinet and SP AusNet made more revenue than forecast, while Envestra made less revenue than forecast:

- Envestra recorded revenues of 0.9 per cent below forecast
- Multinet recorded revenues of 2.2 per cent above forecast
- SP AusNet recorded revenues of 2.9 per cent above forecast

Overall in the 2004-2007 period the aggregate revenue made by Victorian gas DNSPs was $1.66 million and the aggregate forecast for this period was $1.68 million. Therefore the aggregate revenue was 2 per cent below aggregate forecast in the 2004 - 2007 period.

Figure 3.2 Total distribution revenue by distributor

Percentage difference between 2003 and 2008 GAARs forecast and actual for 2004 to 2008

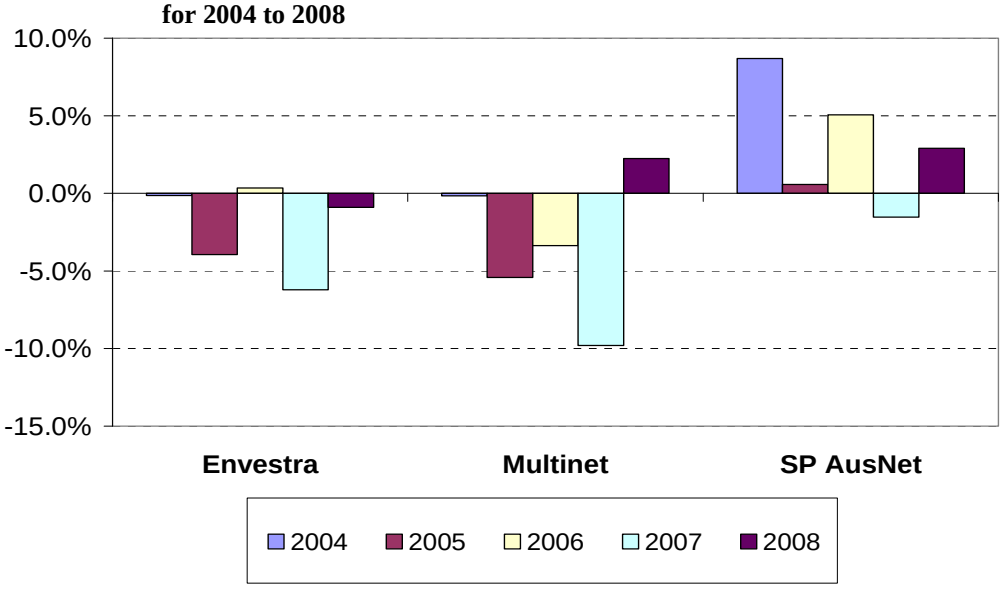
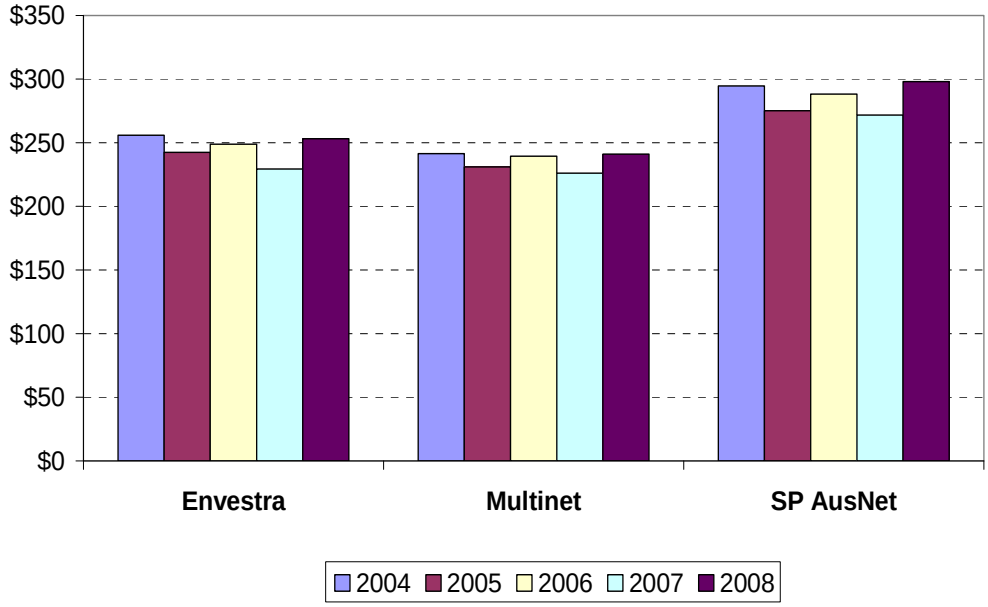


Figure 3.3 shows that network revenue per customer increased slightly for all DNSPs in 2008. Overall network revenue per customer remained relatively stable over the 2004 to 2008 period.

Figure 3.3 Network revenue ($ million, real 2006) per customer

By distributor for 2004 to 2008



3.5 Operating expenditure

Operating expenditure includes costs associated with functions such as:

- maintenance
- network operations
- billing and revenue collection
- market development activities
- customer connections
- maintenance of meters
- management and administration.

The 2003 GAAR and the 2008 GAAR established an annual operating expenditure forecast for each DNSP for the years 2003 – 2007 and 2008 – 2012 respectively.

Table 3.4 summarises each DNSP's total annual operating expenditure over the 2004 to 2008 period.

Figure 3.4 shows the variance of each DNSP's total annual operating expenditure with the 2003 and 2008 GAAR forecasts for the same period.

In 2008 aggregate operating expenditure across all DNSPs increased by 11 per cent. Multinet's operating expenditure was 11.9 per cent above forecast. Envestra's actual operating expenditure was 2.3 per cent above forecast. SP AusNet was the only DNSP to report actual operating expenditure below forecast — by 10.5 per cent.

Table 3.4 Operating expenditure ($ million, real 2006)
By distributor and total industry, 2004 to 2008

	2004	2005	2006	2007	2008
Envestra	43.8	36.4	35.8	38.2	45.1
Multinet	42.5	40.1	41.0	41.4	46.1
SP AusNet	54.9	41.3	39.0	37.2	38.4
All distributors	**141.3**	**117.8**	**115.9**	**116.9**	**129.6**

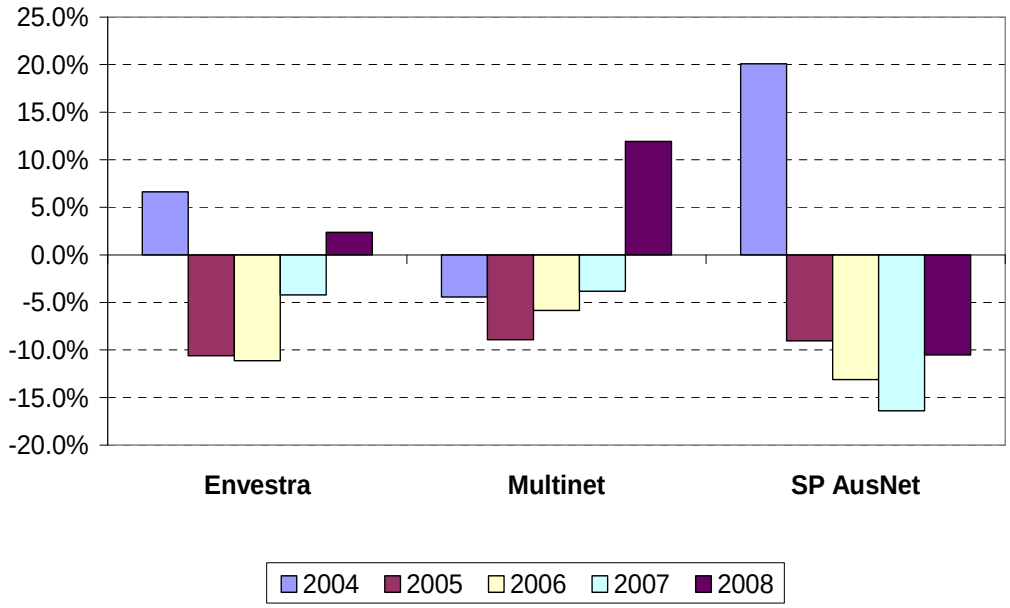
Note: Columns may not total due to rounding.

SP AusNet commented that the variance between actual and forecast operating expenditure was due to cost efficiencies and synergies created from the SP PowerNet and TXU merger.

Multinet commented that the operating expenditure forecast set by the ESCV was lower than the forecast it had proposed because the ESCV did not recognise Multinet's service provider contract.

Figure 3.4 Total operating expenditure by distributor

Percentage difference between 2003 and 2008 GAAR forecasts and actual for 2004 to 2008

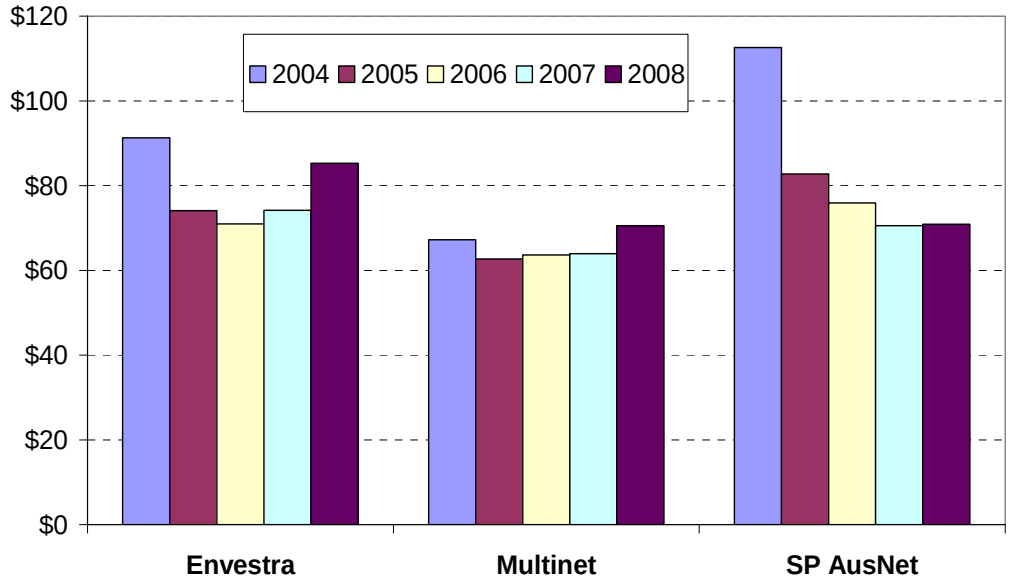


Note: A positive percentage represents a cost increase compared with the 2003 and 2008 GAARs forecast.

Figure 3.5 shows that operating expenditure per customer increased for Multinet and Envestra in 2008, while for SP AusNet increased only slightly.

Figure 3.5 Operating Expenditure ($ million, real 2006) per customer

By distributor for 2004 to 2008



3.6 Capital expenditure

Capital expenditure includes costs associated with functions such as:

- renewal of low pressure mains
- growth-related network augmentation
- new and replacement meters
- other (including expenditure on information technology, and supervisory control and data acquisition systems).

The capital expenditure reported by the DNSPs only represents the portion that is financed by the DNSPs. It excludes the value of any assets paid for directly by customers — otherwise referred to as customer contributions.

The 2003 and 2008 GAAR established net annual capital expenditure forecasts for each DNSP for the years 2003– 2007 and 2008 – 2012 respectively.

Table 3.5 summarises each DNSP's total net capital expenditure over the 2004 to 2008 period. Figure 3.6 shows the variance of each DNSP's total annual net capital expenditure from the 2003 and 2008 GAAR forecasts.

Compared with 2007, net capital expenditure increased by 11 per cent in 2008. The 2008 aggregate net capital expenditure represents the highest amount spent by DNSPs since 2004. The forecast for 2008 net capital expenditure in the 2008 GAAR was higher than the forecasts for the 2003 – 2007 period.

In 2008 all businesses spent below the 2008 GAAR forecasts:

- Envestra's net capital expenditure was 34.3 per cent below forecast
- Multinet's net capital expenditure was 17.5 per cent below forecast
- SP AusNet's net capital expenditure was 9.7 per cent below forecast.

Table 3.5 Net capital expenditure ($ million, real 2006)
By distributor and total industry, 2004 to 2008

	2004	2005	2006	2007	2008
Envestra	34.3	36.8	42.1	46.3	46.3
Multinet	32.8	31.4	35.3	32.3	32.3
SP AusNet	47.3	55.3	48.0	46.5	59.5
All distributors	**114.5**	**123.6**	**125.5**	**124.8**	**138.2**

Note: Columns may not total due to rounding.

Envestra commented that its 2008 capital expenditure was below forecast because it intended to defer net capital expenditure temporarily due to the global financial crisis. In addition Envestra advised that the rate of return allowed by the ESCV was insufficient for Envestra to invest.

Multinet advised that in 2008 it had spent lower than the net capital expenditure forecasts for information technology and pipe-work projects.

SP AusNet commented that tight budgetary controls and synergies created from the TXU and SP PowerNet merger resulted in lower than forecast capital expenditure. In addition SP AusNet commented that the 2008 GAAR had forecasted the changing of 56 100 gas metres, however, through Field Life Extension testing it was revealed that only 50 000 gas metres were required to be changed and this decreased capital expenditure by $3 million. Other reasons include deferral of information technology expenditure, lower than forecast mains renewal replacement and additional expenditure required for customer connections.

Figure 3.6 Total net capital expenditure by distributor

Percentage difference between 2003 GAAR forecast and actual 2004 to 2007

Note: A positive percentage represents capital expenditure higher than forecast in the 2003 and 2008 GAARs

4 Reliability of supply

Reliability of supply is a measure of the level of availability of gas supply to customers. This section provides the performance indicators for the average customer's time off supply, interruption frequency, number of outages on the supply network and major supply interruption events in 2008. Appendix B defines the performance measures used for supply reliability.

On average, customers would expect to experience an unplanned gas outage once every 53 years. This is because:

- Gas DNSPs prefer to carry out their works without causing supply interruptions to customers. This avoids the time needed to completely drain a length of pipeline of its pressure, and the considerable time to purge air out of gas pipes prior to reconnection. It also avoids the additional need for the gas company staff or customers to purge the gas pipes inside customers' premises and to re-ignite pilot lights of gas appliances after supply interruptions.

- Gas pipes are predominantly buried underground and are generally not affected by bad weather.

In reviewing gas supply reliability, it is important to recognise that network reliability is best examined when analysed as a trend over a long period of time. There can be significant short-term variations in reliability measures that are not directly related to changes in the condition of the gas supply network.

New performance indicators, introduced from 1 July 2003 to improve performance monitoring, were not directly comparable with some of the indicators previously reported. The reporting format for the number of outages, however, has not been changed; the historical trends of this information are included in this report.

Details of supply reliability are set out in table D.1 of appendix D. Minutes-off-supply and frequency and duration of interruptions, are discussed in the following sections.

4.1 Minutes-off-supply (SAIDI)

Figure 4.1 shows that the average total minutes-off-supply in 2008 for all Victorian customers was 4.41 minutes, approximately 19 per cent less than in 2007.

In 2008, Envestra recorded the highest average total minutes-off-supply per customer at 5.48 minutes (increasing by 24 per cent); followed by SP AusNet at 4.68 minutes (increasing by 18 per cent); and Multinet had the lowest average minutes-off-supply at 3.33 minutes (decreasing 56 per cent).

Figure 4.1 also shows that the level of average minutes-off-supply caused by unplanned outages for Victorian customers reduced by 14 per cent, indicating a decreasing trend since 2006.

In 2008, average minutes-off-supply per customer caused by unplanned outages for Multinet declined by 31 per cent to 1.49 minutes; for Envestra increased by 10 per cent to 1.84 minutes; and for SP AusNet declined by 5 per cent to 0.81 minutes. SP AusNet's average minutes-off-supply per customer for unplanned outages have been the most consistent and lowest amongst Victorian DNSPs. The 2003 – 2008 data suggests a decreasing trend amongst the DNSPs in average minutes-off-supply for unplanned outages.

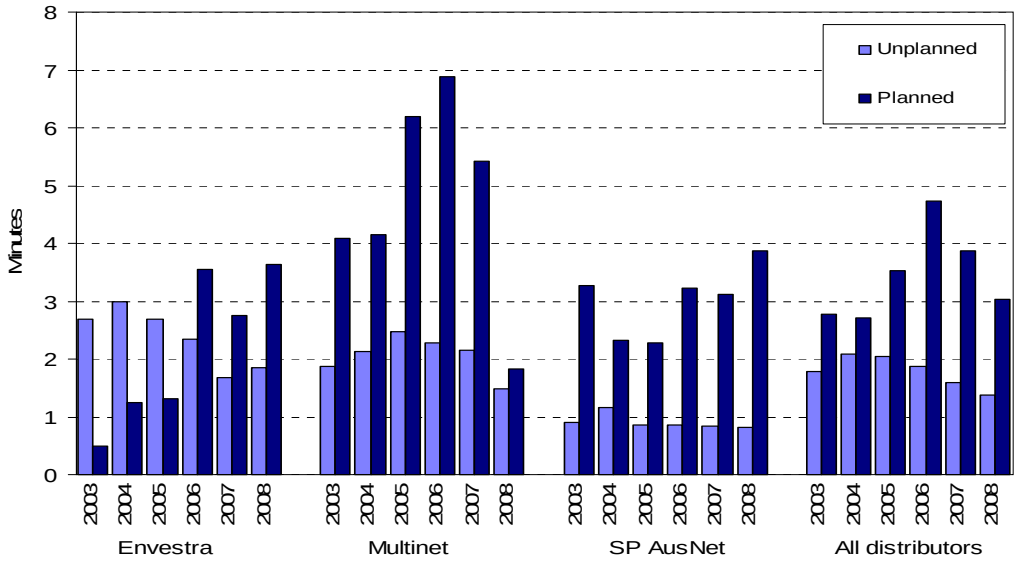
That said, both Envestra and Multinet assumed standard outage times for single customer outages (see section 4.3), which affects the accuracy of the comparison.

There was a decrease in the average minutes-off-supply from planned outages for all DNSPs by 22 per cent. Multinet was the only DNSP to reduce average minutes-off-supply from planned outages, decreasing 66 per cent to 1.83 minutes. SP AusNet increased average minutes-off-supply for planned outages by 25 per cent to 3.88 minutes and Envestra increased by 32 per cent to 3.63 minutes.

SP AusNet advised that the rise in SAIDI was because of the substantial increase in the number of service renewals in SP AusNet's mains renewal program.

Envestra advised that the SAIDI measure depends on the length of mains replaced and the density of customers. Where there is a greater density of customers per kilometre or there is an increase in the amount of customers serviced, the SAIDI measure will increase.

Figure 4.1 Average minutes-off-supply per customer (SAIDI)



Note: Envestra understated the SAIDI figures in its 2003 reported information.

4.2 Interruption frequency (SAIFI)

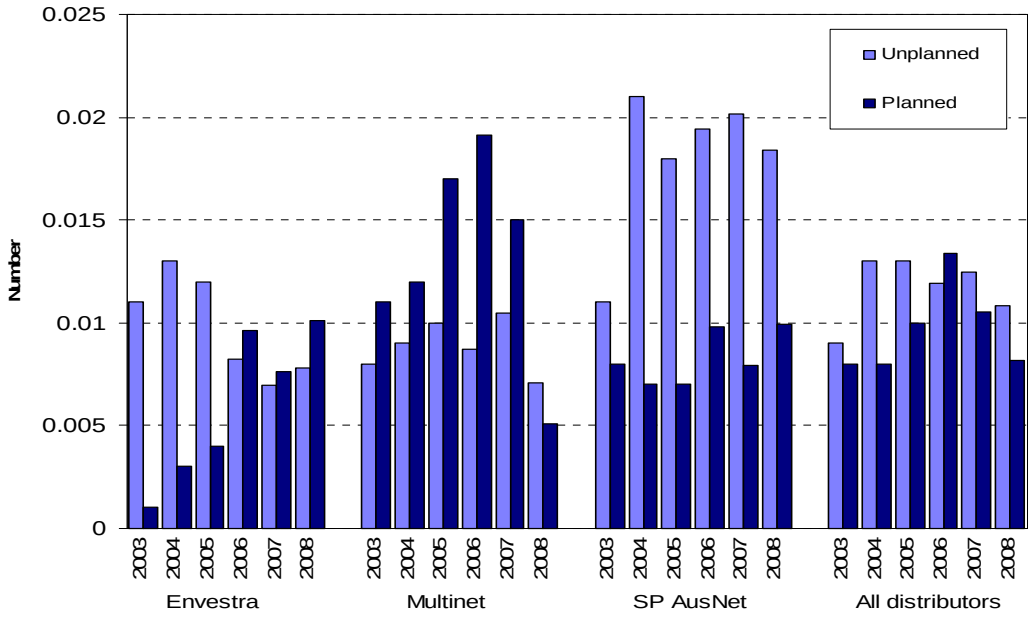
Figure 4.2 shows that, on average, the total frequency of supply interruptions experienced by Victorian gas customers in 2008 was 0.019, a 17 per cent reduction from 2007, and the lowest frequency of supply interruptions since 2003.

The 2008 results represent one interruption every 53 years for the average customer in Victoria. This varies across the DNSPs: for Multinet this is one interruption in 82 years; for Envestra this is one interruption in 56 years; and for SP AusNet this is one interruption in 35 years.

In 2008, the number of planned interruptions increased for both SP AusNet and Envestra by 25 per cent and 32 per cent respectively. Multinet reduced planned interruptions by 66 per cent. SP AusNet advised that SAIDI is simply a function of the length of gas mains renewed: the more mains renewed, the greater the number of interruptions of supply. SP AusNet advised that in 2008 it increased the length of main renewed 24 per cent since 2007. SP AusNet commented that interruption duration and average minutes-off-supply are preferred measures of efficiency.

Multinet and SP AusNet reduced average unplanned interruption frequency, while Envestra increased from 0.007 to 0.008 (an increase of 12 per cent).

Figure 4.2 Average number of interruptions per customer (SAIFI)

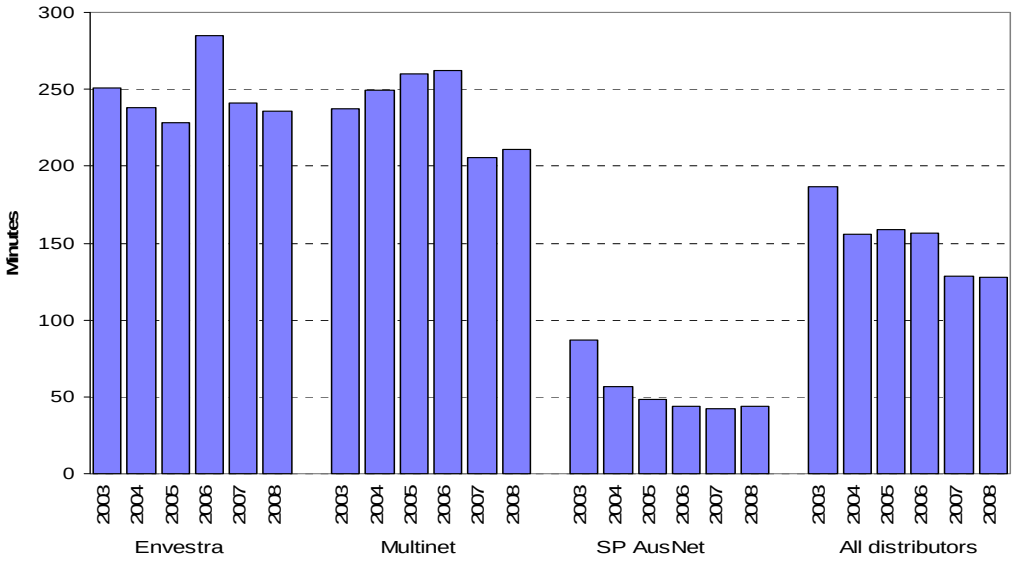


4.3 Interruption duration (CAIDI)

Figure 4.3 shows that the reported average duration of unplanned interruptions in 2008 was 127 minutes, a 1 per cent reduction since 2007 and an overall 19 per cent reduction compared with the average interruption duration in the 2003 – 2007 period.

Envestra was the only DNSP to report improvement – reducing interruption duration by 2 per cent to 235 minutes. Multinet's interruption duration increased by 3 per cent to 211 minutes. SP AusNet's interruption duration increased by 5 per cent to 44 minutes – the same result as in 2006. SP AusNet has reported the lowest average duration of unplanned interruptions in the 2003 – 2008 period.

Figure 4.3 Average unplanned interruption duration per customer (CAIDI)



Note: Due to the change in the reporting format during 2003, the reported performance indicators for the first six months of 2003 were converted to the current format by the former Office of Gas Safety.

4.4 Number of unplanned outages

DNSPs are required to report all unplanned gas outages, which are classified according to whether they affect five or fewer customers, or more than five customers.

Figure 4.4 shows the number of unplanned outages affecting five customers or fewer for each of the DNSPs since 2000.

The number of unplanned outages affecting five or fewer customers in Victoria as a whole decreased 18 per cent since 2000. Compared with 2003, which was considered to be the best year in the state, figures in 2008 were 42 per cent higher.

Compared with 2007, there was a 10 per cent reduction in the number of unplanned outages for all DNSPs.

For Envestra there was a reversal in the improving trend, as the number of unplanned outages increased by 15 per cent. The 2007 results mark the best year for Envestra.

Multinet and SP AusNet reduced the number of unplanned outages by 31 and 5 per cent respectively. SP AusNet commented that it is the only DNSP that reports all unplanned interruptions (even changing a faulty meter or regulator that only takes a few minutes), and consequently the number of interruptions are significantly higher than the other DNSPs.

Figure 4.4 Number of outages affecting five customers or fewer

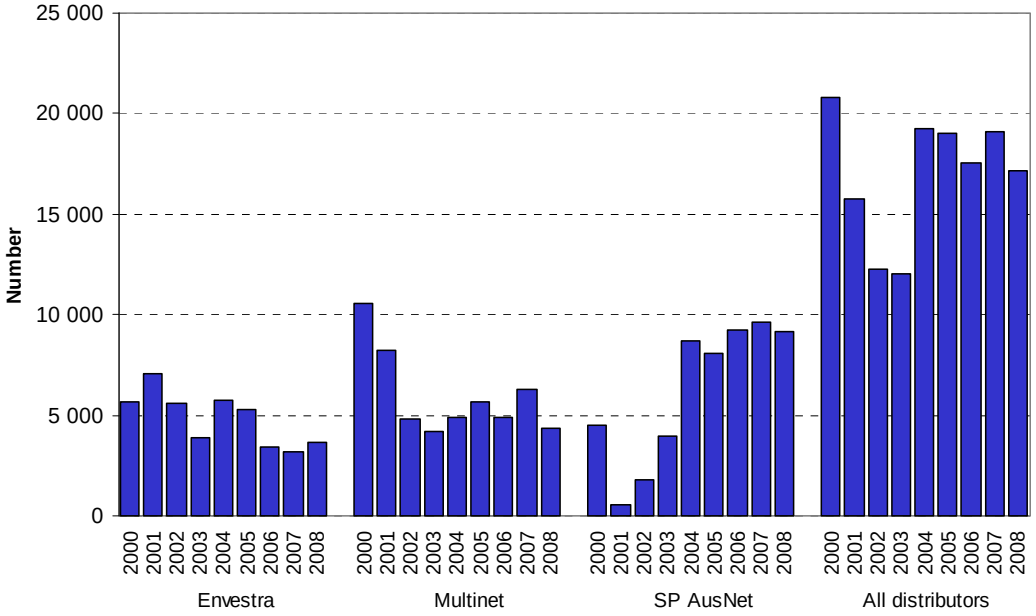


Figure 4.5 shows the number of outages affecting five or more customers, for each of the DNSPs since 2000. Compared to the outages that affect fewer than five customers, these incidents are far less common, and greater percentage variation might be expected from year to year. Appendix D provides further details of gas supply reliability.

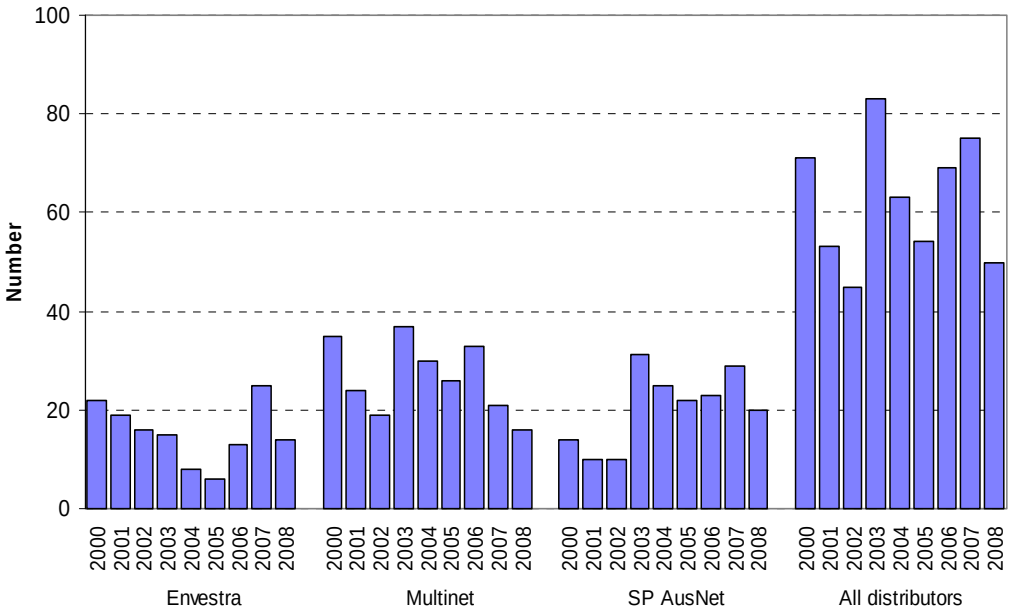
In 2008 the total number of outages affecting more than five customers was 50, an improvement of 33 per cent since 2007 and a 30 per cent improvement from 2000. The 2008 figure is the second lowest within the 2000 – 2008 period.

Envestra recorded 14 unplanned outages affecting five or more customers – a reduction of 44 per cent – similar to the 2006 figure.

Multinet also decreased the number of outages affecting five or more customers by 24 per cent – recording 16 outages. The 2008 figure is the second lowest for the 2000 – 2008 period.

SP AusNet decreased the number of outages affecting five or more customers by 31 per cent – recording 20 outages.

Figure 4.5 Number of outages affecting more than five customers



4.4.1 Significant supply interruption events in 2007

Appendix E provides a detailed list of significant supply interruption events. The most significant events in the year were:

- Loss of supply to 75 houses at Highton in SP AusNet's supply area on 17 July 2008, caused by incorrect information at mains replacement project.

- Loss of supply to approximately 69 houses in Thornbury in Envestra's supply area on 28 November 2008, caused by a drainage contractor's excavator damage of an 100 mm low pressure PVC gas main.

- Loss of supply to residential block in St Kilda and evacuation of 90 persons in Multinet's supply area on 21 September 2008, due to an electrician contractor's damage to a 150 mm low pressure gas main.

Compared with 2007, there are fewer significant supply events. The level of supply interruptions in 2008 — the number and the cause and impact of each on customers — does not appear to indicate major issues with DNSPs' asset management practices.

5 Network integrity

A critical aspect of gas supply safety is network integrity, which can be measured by loss of containment (leakages), third-party damage and replacement of aged assets. These measures may also provide an indication of supply reliability.

This report covers the assessment of network integrity in 2008 from a reliability perspective. Enquiries about gas safety should be directed to Energy Safe Victoria (ESV, formerly the Office of Gas Safety). Details about the performance measures for network integrity are contained in appendix B.

The steady improvements in network integrity indicators in 2008 do not signal any deterioration in the DNSPs' asset management practises.

5.1 Gas leaks

All DNSPs are required to provide information on gas leaks to ESV.[13] Repaired leaks include leaks identified through public reports and leakage surveys.[14]

The DNSPs carry out leakage surveys, which they use to identify and repair smaller leaks. The DNSPs also provide information to ESV on total number of outstanding leaks from their leakage surveys and the AER refers to these as unrepaired leaks.

The AER has been advised that there is variation in the types of leakage surveys carried out by the DNSPs in 2008. The ESC and ESV consider that the variation in the DNSPs approach to carrying out leakage surveys means that comparison of the leakage surveys between distributors is not meaningful.[15]

On this basis, the AER has decided not to compare unrepaired leaks information provided by the DNSPs in this report. Instead the average number of unrepaired gas leaks reported by the DNSPs for 2008 has been summarised in table 5.1.

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[13] Distributors are required to report on Key Performance Indicators contained within the *Information Specification: Performance Indicators* 2004 established by the Office of Gas Safety and the ESCV.

[14] ESCV and Office of Gas Safety, *Information Specification Performance Indicators Requirements for Reporting by Victorian Gas Distribution Companies*, December 2004, p. 8.

[15] ESCV and ESV, *Information Specification Performance Indicators Requirements for Reporting by Victorian Gas Distribution companies*, January 2009, p.8.

Information on unrepaired leaks continues to be provided by DNSPs to the ESV in a separate report and, is subject to ESV audits.[16] Information on DNSPs historical comparative performance of unrepaired leaks is available in the ESCV's previous comparative performance reports.

Table 5.1 Average number of unrepaired gas leaks for 2008

	SP AusNet	Envestra	Multinet	Total
2008	313	2 119	289	2 721

Note: Envestra advised that the average number of unrepaired leaks for 2008 have been reduced since 2007.

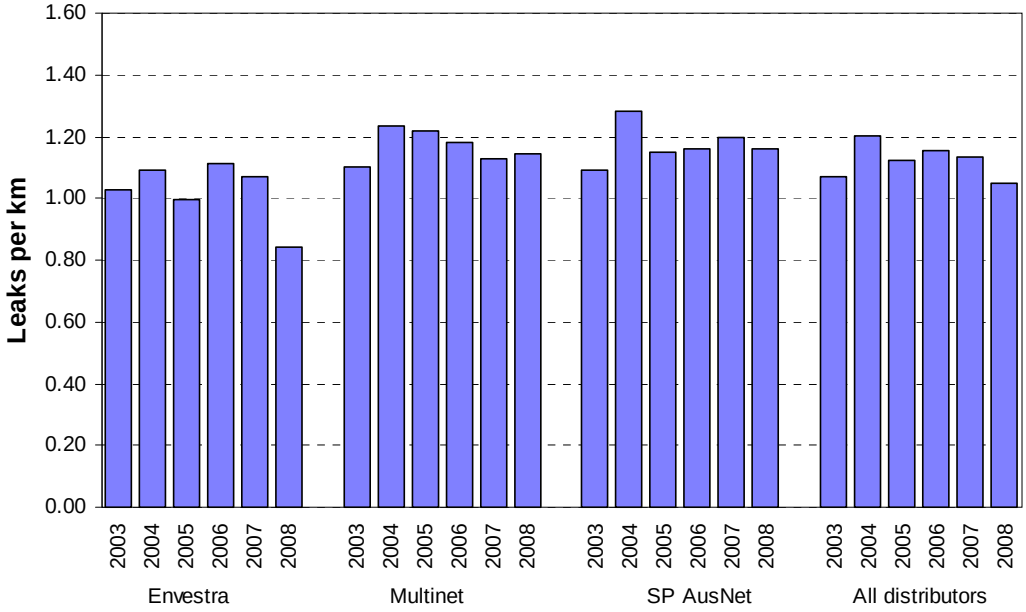
Figure 5.1 summarises the total number of publicly reported and repaired gas leaks per kilometre of pipe, in the DNSPs' networks.

In 2008, the total number of repaired gas leaks per kilometre decreased by 7 per cent from 2007 and 13 per cent since 2004, thereby continuing on the decreasing trend. It should be noted that the number of repaired leaks are driven by the number of public reports. That is a decline in the number of repaired leaks is attributable to a decline in the number of publicly reported gas leaks.

- The number of gas leaks repaired by Multinet increased by 1 per cent from 2007
- The number of gas leaks repaired by SP AusNet decreased 3 per cent
- The number of gas leaks repaired by Envestra decreased 21 per cent

[16] ibid.

Figure 5.1 Repaired leaks per kilometre of gas pipe



5.2 Mechanical damage

Figure 5.2 shows the number of mechanical damage to mains per kilometre. In 2008, DNSPs reported 275 instances of damage to gas distribution mains, 8 more than in 2007, representing approximately a 1 per cent increase. This represents 0.0097 incidents per kilometre of gas distribution pipes.

Figure 5.3 shows the number of mechanical damage to service connections for the 2003 – 2008 period. There were 3548 incidents of damage to customer service connections in 2008 or 20.6 incidents per thousand customer connections. This represents an increase of 26 incidents and a 1 per cent increase since 2007. The 2008 figures indicate relatively steady levels since 2004.

Figure 5.2 Mechanical damage to mains

Number of incidents per kilometre of distribution mains

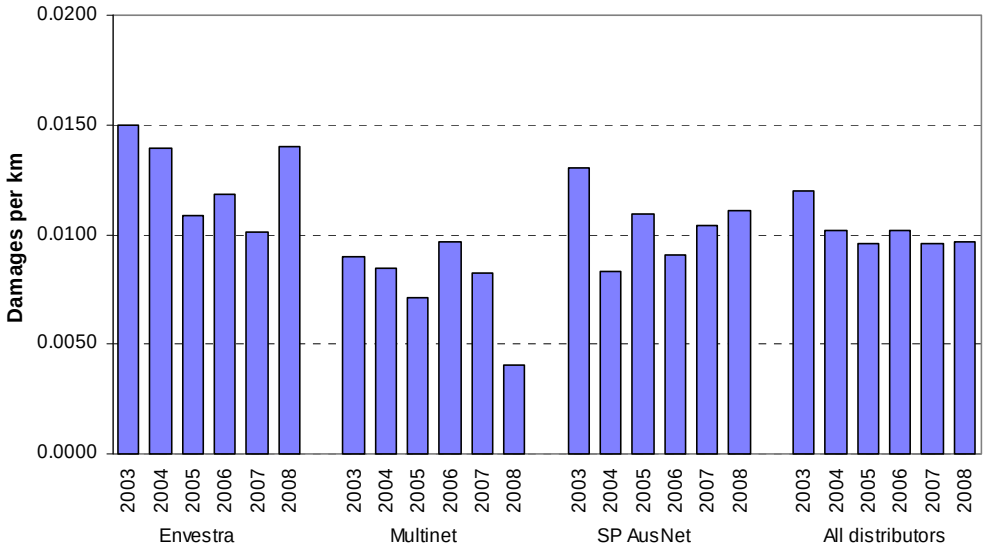
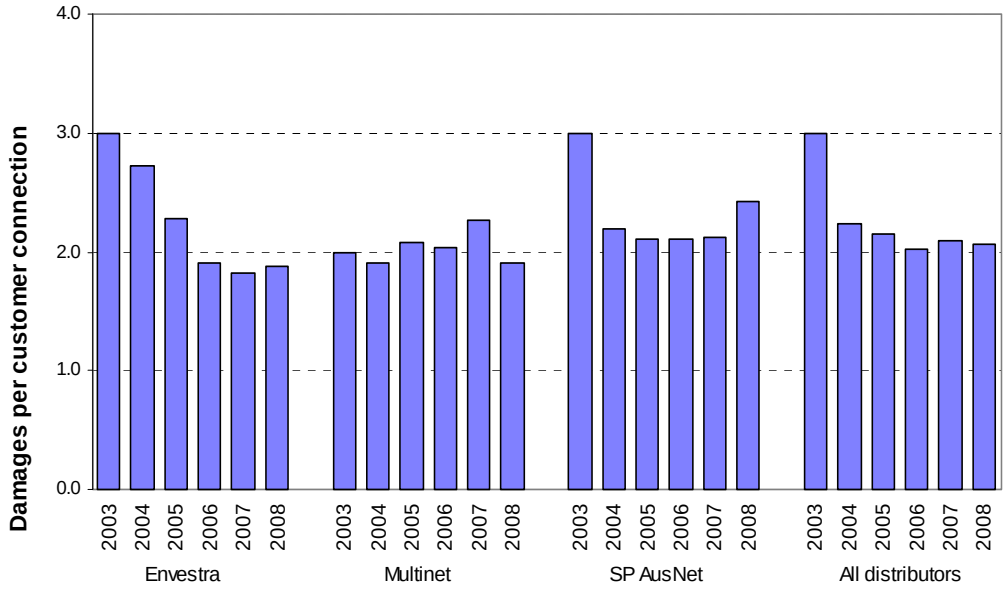


Figure 5.3 Mechanical damage to service connections

Number of incidents per 1000 customers



5.3 Low-pressure network replacement

Table 5.1 summarises the progress of low-pressure gas network replacement achieved by the DNSPs in 2008 against the replacement plan set by the ESCV in the 2008 GAAR. It also contains the DNSPs' actual low-pressure network replacement for the 2003 – 2007 period against respective targets in the 2003 GAAR.

In 2008, none of the DNSPs achieved their respective targets. Envestra achieved 50 per cent of the target; Multinet 43 per cent and SP AusNet 86 per cent.

Table 5.1 Low-pressure gas network replacement

Cumulative kilometres and percentage of final targets

	Envestra		Multinet		SP AusNet	
	Target	Actual	Target	Actual	Target	Actual
2003	32–36	18	93	67	40	46
2004	64–72	40	197	169	95	105
2005	96–108	65	296	298	175	171
2006	128–144	123	406	441	275	253
2007	160–180	191	540	576	375	315
Percent of final target for 2003 – 2007		**106% – 109%**		**107%**		**84%**
2008	90	45	108	46	90	77

SP AusNet advised that it did not achieve the target set out in the 2008 GAAR because it deferred capital due to the global financial crisis and also because of a significant increase in customer connections which took priority over low-pressure network replacement. SP AusNet commented that its improvement in repaired leaks and average minutes-off-supply for unplanned outages confirms the appropriateness of this reprioritisation.

Envestra advised that it had deferred capital expenditure temporarily due to the global financial crisis and that the rate of return allowed by the ESCV was insufficient for Envestra to invest.

Multinet advised that its low-pressure gas network replacement program was delayed in 2008.

6 Customer Service

The levels of customer service achieved by the DNSPs are measured by:

- their performance in responding to customer calls about serious incidents
- meeting customers' appointments on time
- making supply connections
- maintaining supply reliability above the minimum reliability level.

Customer service is also measured through the proportion of complaints received by the DNSPs, and received for full investigation the Energy and Water Ombudsman (Victoria) (EWOV).

6.1 Response to customer calls

DNSPs reported on their response times to customer calls about serious incidents. The response time is defined as the time elapsed from when a report classified as a priority A gas leak incident is received by the DNSP, to the time taken for a DNSP representative to arrive on site.[17] The following targets have been established:

- metropolitan business hours (7 am to 7 pm weekdays) — 95 per cent within 60 minutes
- metropolitan after hours — 90 per cent within 60 minutes
- country all hours — 90 per cent within 60 minutes.

Table 6.1 summarises the response to customer calls.

[17] A description of priority A gas leak incidents is contained in appendix E of this report.

Table 6.1 Response to customer calls

Percentage of response meeting target

		Metro calls	Country calls
	Business hours (target: 95%)	After hours (target: 90%)	(target: 90%)
Envestra	94%	89%	97%
Multinet	97% [a]	97% [a]	NA [b]
SP AusNet	98%	98%	98%

Note [a] Multinet does not differentiate between business hours and after hours. Multinet instead targets a 95 per cent response rate for all hours.
[b] Multinet does not have country customers.

While Multinet and SP AusNet were able to achieve above the targets, Envestra fell below the target for customer calls during and after business hours.

Envestra achieved the same result as in 2007 (94 per cent) for responding to customer calls during business hours and responded to 89 per cent of customer calls after hours (a 1 per cent improvement).

Envestra and SP AusNet were both able to achieve above targets for responding to country customer calls. (Multinet does not have any country customers). Envestra improved 4 per cent from 2007.

6.2 Guaranteed Service Level (GSL) payments

As part of the 2008 GAAR the ESCV required DNSPs to operate under the GSL payment scheme. The scheme intends to encourage DNSPs to improve their services. Details of the scheme are in appendix C.

Table 6.2 shows that DNSPs made a total of 899 payments totalling $147 170. This represents an increase of 102 per cent in the number of GSL payments and a 242 per cent increase in the value of total GSL payments from 2007. The AER notes that part of the significant increase in the value of total GSL payment can be attributed to the increase in the GSL payments made for connections.

The most significant change occurred to GSL payments made for failure to connect a residential customer within two days of agreed date – increasing to 707 payments from 120 in 2007.

In contrast with 2007, payments made for late appointments, lengthy and repeat interruptions all reduced. The amount of payments made by DNSPs for being more than 15 minutes late for an appointment with a residential customer improved by 56 per cent. The number of payments decreased from

3 to 1 (a 67 per cent improvement). Envestra was the only DNSP to make the payment.

The amount of payments for repeat interruptions increased by 10 per cent. However, the number of payments made decreased by 20 per cent. This variation is partly because Envestra, who made 3 payments, agreed to pay an amount in excess of the mandatory level of $50, making a payment of $160 to each affected customer. Multinet advised that it had also made payments above the mandatory level for each affected customer.

SP AusNet was the only DNSP to decrease the number of payments for repeat interruptions compared with 2007 by 57 per cent, from 68 to 29. Multinet made an additional 16 payments compared with 2007 (a 47 per cent increase). While Envestra did not incur a GSL payment for repeat interruptions in 2006 and 2007, it made 3 payments for repeat interruptions in 2008.

The number of GSL payments made for lengthy interruptions decreased by 50 per cent. Envestra decreased the amount of payments by 51 per cent; Multinet by 49 per cent and SP AusNet by 54 per cent. The amount of payments decreased from 2007, for Envestra by 51 per cent; Multinet by 30 per cent; and SP AusNet by 27 per cent.

On average, in 2008 DNSPs made one GSL payment per 1877 customers, indicating a significant increase from 2007, where DNSPs made one payment for every 3700 customers. This varies for each DNSP:

- For SP AusNet there was one GSL payment per 738 customers. This is a significant increase in GSL payments compared with 2007 which was one GSL payment per 3582 customers.

- For Envestra there was one GSL payment per 7 106 customers. This is a significant improvement from 2007 which was one per 2988 customers.

Figure 6.1 displays the total number of GSL payments made by DNSPs from 2003 to 2008:

- Envestra reported an increase in the number and amount of GSL payments for late appointments and repeat interruptions. Envestra advised that repeat interruptions are infrequent and that there were six in 2005 and none in 2006 and 2007. Envestra also noted that unplanned outages are affected by the weather, for example rain may cause water in mains. Envestra also advised that GSL payments involve small numbers which result in larger percentage variances.

- Envestra reduced the number of GSL payments for lengthy interruptions. It also reduced the number and amount of payments made for connections. For 2008 Envestra performed the best, incurring the lowest total number and amount of GSL payments out of the Victorian DNSPs.

- Multinet has continued the trend for not making any payments for late appointments since 2003. Multinet has performed consistently in GSL payments for connections by only making one payment in 2008.

- The number of GSL payments made for repeat interruptions continued increasing for Multinet since 2007. There appears to be fluctuations in payments made for lengthy interruptions. Multinet advised that it seeks to improve or at least maintain its performance. Multinet also noted that relative to its customer base the increase in the number of repeat interruptions is a relatively small amount and that smaller numbers produce larger variances.

- SP AusNet performed consistently by not making any payments for late appointments. However, SP AusNet experienced a significant increase in payments made for connections in 2008. The bulk of these payments were made in March, April and May 2008. SP AusNet advised that during the initial quarter of 2008 a recall of faulty up stands[18] was required to ensure safe service installation. The recall resulted in 636 customers not being connected with two days of the agreed date. SP AusNet performed consistently in payments for repeat interruptions and lengthy interruptions, decreasing in the number and amount of payments made. SP AusNet advised that it had identified necessary augmentation and targeted areas of mains replacement to the network prior to the 2008 winter peak period.

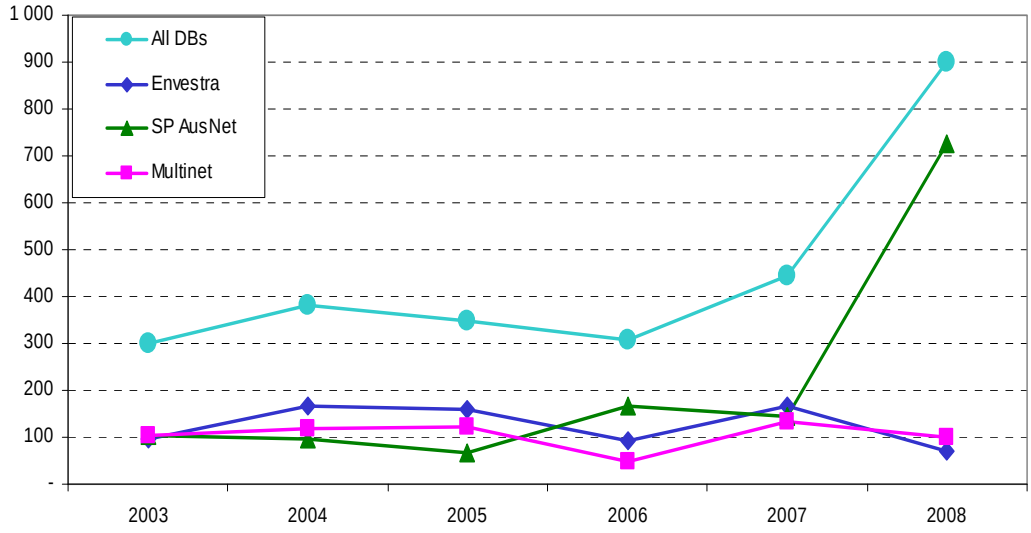
[18] A service 'up stand' refers to the connection between the service to the meter inlet and the customers' fitting line or (piping) to permit the turn on and commissioning of the fitting line and appliances.

Table 6.2 GSL payments made by distributors

No. of customer payments						Amount paid				
	2004	2005	2006	2007	2008	2004	2005	2006	2007	2008
Appointments — more than 15 minutes late for appointment with a residential customer										
Envestra	-	1	-	3	1	-	$50	-	$180	$80
Multinet	-	-	-	-	-	-	-	-		
SP AusNet	-	-	-	-	-	-	-	-		
Total	-	1	-	3	1		$50	-	$180	$80
Connections — failure to connect a residential customer within two days of agreed date										
Envestra	22	80	42	69	21	$3 090	$10 880	$7 760	$12 160	$3 760
Multinet	1	2	-	-	1	$ 80	$ 400	-	-	$80
SP AusNet	8	22	44	51	685	$ 720	$3 440	$7 840	$8 080	$126 880
Total	31	104	86	120	707	$3 890	$14 720	$15 600	$20 240	$130 720
Repeat interruptions — more than six unplanned interruptions to a residential customer in a twelve-month period resulting from faults in the distribution system										
Envestra	49	6	-	-	3	$2 600	$ 300	-	-	$480
Multinet	63	32	18	34	50	$3 150	$1 600	$ 900	$1 700	$3 700
SP AusNet	31	27	100	68	29	$1 550	$1 350	$5 000	$3 400	$1 450
Total	143	65	118	102	82	$7 300	$3 250	$5 900	$5 100	$5 630
Lengthy interruptions — gas supply interruption to a residential customer not restored within 12 hours										
Envestra	95	73	50	95	47	$7 600	$5 840	$4 000	$7 600	$3 760
Multinet	56	88	32	98	50	$4 480	$7 040	$2 560	$7 840	$5 460
SP AusNet	57	16	21	26	12	$4 560	$1 360	$1 680	$2 080	$1 520
Total	208	177	103	219	109	$16 640	$14 240	$8 240	$17 520	$10 740

Figure 6.1 GSL payments made by distributors, 2004 – 2008

Total number of payments



6.3 Complaints

6.3.1 Customer complaints to distributors

Figure 6.2 shows that the level of complaints recorded by all DNSPs combined increased by 13 per cent, reversing the decreasing trend for the 2004 – 2007 period.

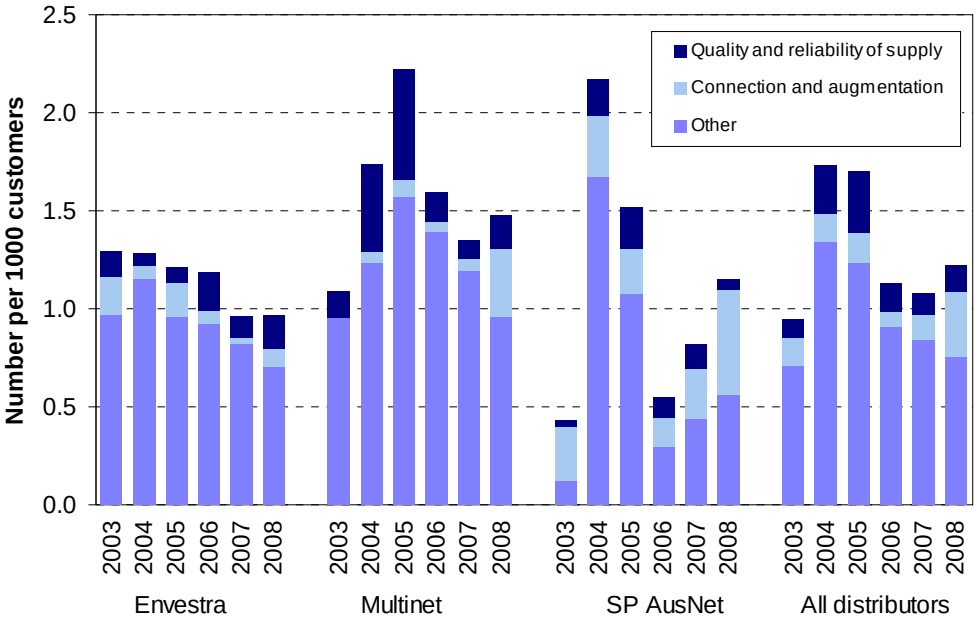
- Customer complaints made to Envestra increased slightly by less than 1 per cent. There was an increase in complaints about connections and quality and reliability of supply. In 2008 there were 0.9 complaints per thousand customers.

- Multinet's customer complaints increased by 9.4 per cent, with 1.4 complaints per 1000 customers. However, Multinet continues to have the largest number of complaints per thousand customers compared with other DNSPs.

- SP AusNet's customer complaints increased by 40 per cent, with 1.2 complaints per thousand customers. There was a significant increase in complaints about connection and augmentation. SP AusNet advised that this increase was about the recall and replacement of up stands as discussed in section 6.2.

Figure 6.2 Complaints received by distributors

Number per 1000 customers



SP AusNet advised that the increase in customer complaints in the 'other' category was due to severe weather and record demand which raised various customer issues such as water ingress. SP AusNet advised that the decrease in complaints about quality and reliability of supply was due to identifying necessary augmentation and mains replacement prior to the winter peak period.

6.3.2 Complaints to the Energy and Water Ombudsman (Victoria) (EWOV)

Figure 6.3 shows the number of complaints about gas distribution received by EWOV for full investigation (see box 6.1 for explanation).

The number of complaints received by EWOV for full investigation in 2008 decreased by 48 per cent, from 48 to 25 complaints. The number of complaints in 2008 was the lowest since 2004. The number of complaints received by EWOV for all DNSPs decreased in 2008 except for Multinet who achieved the same result as in 2007. The majority of complaints received by EWOV for full investigation were about Multinet (48 per cent), 32 per cent were complaints about SP AusNet and 20 per cent were complaints about Envestra.

Figure 6.3 Complaints against distributors received by EWOV

Complaints received for full investigation, 2008

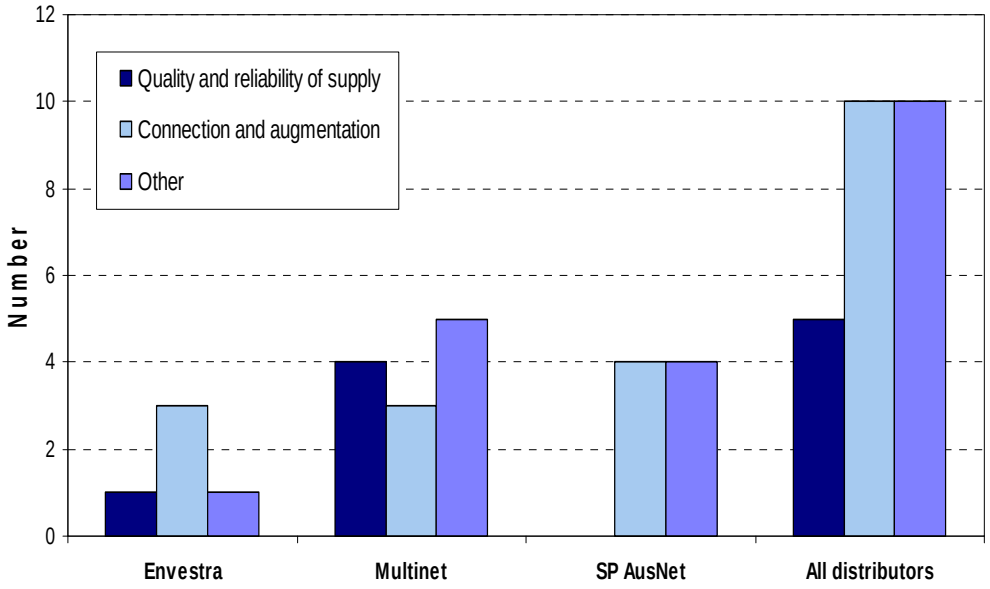
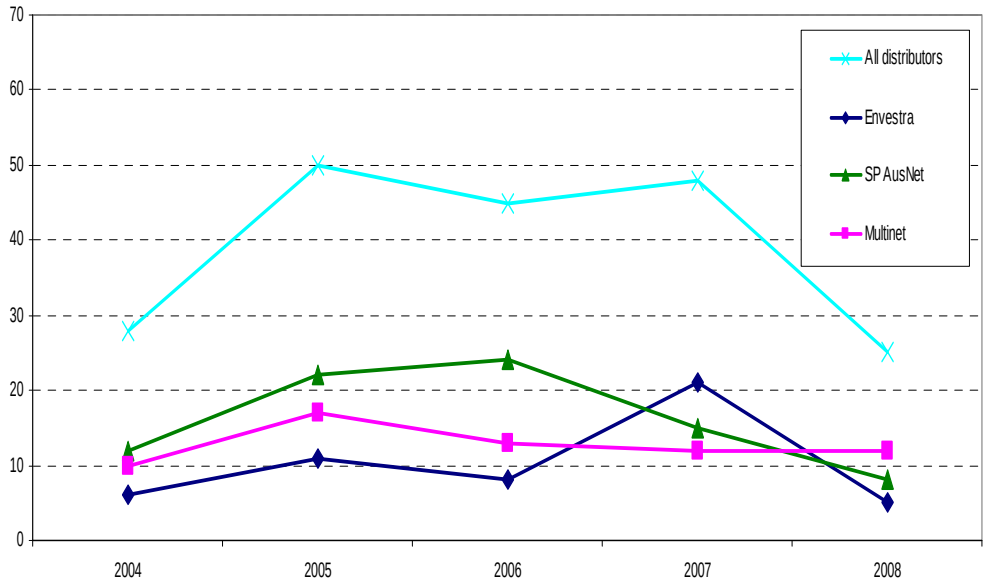


Figure 6.4 shows that the trend of all complaints about gas distribution received by EWOV for full investigation is improving.

Figure 6.4 Complaints against distributors received by EWOV

Complaints received for full investigation, 2004-08



Box 6.1 Explanatory note

EWOV defines a complaint as an expression of dissatisfaction regarding a policy, practice or customer service performance of an energy or water provider that is a participant in the EWOV scheme, where a response or resolution is explicitly or implicitly expected.[19]

The material above shows only 'complaints received for full investigation'. EWOV's normal process is to fully investigate complaints that remain unresolved following two or more contacts between the customer and the provider. In 2008, EWOV received 25 gas distribution complaints for full investigation.

In addition to 'complaints received for full investigation', the two other types of complaint are:

'complaints referred to provider': if a customer has not yet spoken with the energy or water provider about their complaint, EWOV generally refers them back to the provider's call centre. EWOV began noting the number of these complaints in July 2005.

'complaints referred to higher level contact': if the customer has spoken once with someone at the provider's call centre but the complaint remains unresolved, EWOV usually refers them to a higher level contact at the provider.

[19] Energy and Water Ombudsman, *How we handle cases*, http://www.ewov.com.au/GotaProblem/Howwehandlecases1.aspx 12 April 2010.

A. Appendix: Gas haulage tariffs

DNSPs currently charge two types of Haulage Reference Tariffs (tariffs) — Volume Tariff V and demand Tariff D (including Tariff M).

Tariff V is applicable to customers using less than 10 terajoules (TJ)[20] per year. Such customers are typically residential and small commercial users. The tariff includes a fixed charge and a variable component.[21] Different tariffs are charged across geographic zones — Envestra maintains four pricing zones (Central, North, Murray Valley and Bairnsdale); SP AusNet, four (Central, West, Central New and West New); and Multinet, a single metropolitan zone and two regional zones (South Gippsland and Yarra Valley).

Charges also vary according to customer categories — classified as residential and non-residential. Envestra applies the same tariff, while Multinet and SP AusNet charge different Tariff V rates to residential and non-residential customers. Envestra's and SP AusNet's Tariff V structures include tariff 'bands' for peak and off-peak periods. Multinet applies a greater number of tariff bands, including a shoulder period.[22]

SP AusNet also has a Tariff M which applies to existing Tariff V customers that exceed the Tariff V consumption limits of 10 TJ in any 12 month period, or the maximum hourly quantity (MHQ) limit of 10 gigajoules in any hour (1 gigajoule, GJ = 10^9 joules).

Tariff D applies to customers using more than 10 TJ per year. It is based on the MHQ of gas consumed. These customers are typically large industrial users such as bakeries and large manufacturing plants. Tariff D does not incorporate a fixed charge. As Tariff D is based on the MHQ, charges are generally common across each DNSP's area.[23] Tariff D structures vary across each of the businesses.

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[20] One TJ = 10^{12} joules (J), or 1000 GJ.

[21] Under the existing Access Arrangements, the Reference Service for Tariff V customers comprises gas haulage, connection to the gas system and provision of a gas meter.

[22] The shoulder period applies to May and October and, according to Multinet, is designed to account for usage in these months that is more reflective of the peak period than the off-peak period.

[23] Envestra applies higher charges in its Murray Valley zone.

B. Appendix: network performance and integrity measures

B.1 Performance measures for reliability of supply

Reliability is primarily measured through the average frequency and duration of supply interruptions. Gas supply interruptions can be either planned or unplanned. Planned interruptions occur when a DNSP needs to disconnect supply to undertake maintenance or construction work. DNSPs are required to give customers at least 10 business days' notice of planned interruptions.

Unplanned interruptions occur mainly due to leakages or damaged pipes requiring immediate repair. Unplanned outages are often caused by third parties damaging pipes, and by water entering low-pressure pipes.

The key reliability measures used to analyse the performance of DNSPs in Victoria are:

- Minutes-off-supply — the performance indicator for customer minutes-off-supply is called System Average Interruption Duration Index (SAIDI). It measures the total minutes, on average, that a customer could expect to be without gas over the reporting period. Total SAIDI comprises both planned and unplanned minutes-off-supply.

- Interruption frequency — the performance indicator for interruption frequency is called System Average Interruption Frequency Index (SAIFI). It measures the number of occasions per year when each customer could, on average, expect to experience an interruption. It is calculated as the total number of customer interruptions, divided by the total number of connected customers averaged over the reporting period.

- Interruption duration — the performance indicator for interruption duration is called Customer Average Interruption Duration Index (CAIDI). It measures the average time taken for supply to be restored to a customer when an interruption has occurred. It is calculated as the sum of the duration of each customer interruption (in minutes), divided by the total number of customer interruptions (SAIDI divided by SAIFI). In this report, CAIDI for unplanned interruptions is reported. Unplanned CAIDI is the average time taken by the DNSP to find and repair faults on the gas network.

- Numbers of unplanned outages — the numbers of outages in the reporting period resulting in customers experiencing an unplanned gas supply interruption. Note that the performance indicator for the number of outages does not take account of variations between DNSPs in the size of their gas networks or the number of customers supplied.

B.2 Measures of network integrity

B.2.1 Gas leaks

An important measure of the effectiveness of DNSPs' network integrity and maintenance strategies is the number of gas leaks per kilometre. This measure is impacted by a number of factors, including the effectiveness of DNSPs' renewal strategies, the condition and composition of assets, the level of odorant, the extent and effectiveness of leakage surveys and seasonal/environmental factors.[24]

Gas leaks are identified through public reports of gas smell, and through the DNSPs' leakage surveys. The number of repaired leaks refers to the reported leak repair jobs that have been completed by the DNSPs and not the number of public reports made.[25] As all publicly reported gas leaks are required to be repaired within 24 hours there are no outstanding leaks from public reports.[26]

Prior to 1 July 2003, loss of containment was reported as publicly reported leaks per 1000 customers. Because a leak may be reported several times or one reported leak may be due to several leakage points, this is not an accurate measure. DNSPs now report the number of kilometres of gas mains surveyed and the number of leaks detected and repaired.

DNSPs undertake leakage surveys as a pro-active maintenance strategy. They advise that the selection of locations to be surveyed is risk-based and that they have particular regard to sensitive areas where the consequences of leakage is greatest. More frequent leakage surveys can reduce the duration of gas leaks and can reduce the number of leaks found and reported by the public.

B.2.2 Mechanical (third party) damage

External damage to networks is a significant cause of gas escapes and customer supply interruptions. This is primarily a safety issue because damage to gas mains may lead to death and injuries.

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[24] Gas distribution network assets can be classified based on the gas pressure as low-pressure, medium-pressure and high-pressure mains. The material of the gas mains also impacts on the number of gas leaks. Cast iron pipes are more prone to develop leaks.

[25] ESCV and ESV, *Information Specification*, January 2009, p. 8.

[26] ibid.

The number of mechanical damage incidents is calculated by tallying the recorded mains-damage and service-damage jobs completed during the year, which includes:

- the number of incidents of damage to distribution mains
- the number of incidents of damage to distribution services.[27]

B.2.3 Replacement of aged assets

During the 2003 Gas Access Arrangement Review, DNSPs made submissions to the ESCV to replace a significant portion of their aging — mostly cast iron — low-pressure networks to improve safety and reliability.

The ESCV decided on the following quantities of gas mains targeted for replacement for the 2008 – 2012 regulatory control period:

	Total target for 2008 – 2012
Envestra	450 kilometres
Multinet	557 kilometres
SP AusNet	450 kilometres

[27] 'Distribution services' means all components, including the service tapping tee and any service isolation valve between the gas main and a customer's meter/regulator assembly.

C. Appendix: Guaranteed Service Levels (GSL) payments scheme

Table C.1 Guaranteed Service Level (GSL) payment threshold items

Area of service	Level of service to incur GSL payment	Level of GSL payment
Appointments	Arrive for an appointment with a *residential customer* within 15 minutes of the scheduled time[28]	$50 per event
Connections	Failure to connect a customer within one day of agreed date	$80 per day (subject to a maximum of $240)
Repeat interruptions	No more than 6 unplanned interruptions to a residential customer in a twelve month period resulting from faults in the distribution system[29] [30]	$50 for each subsequent event in that calendar year
Lengthy interruptions	Gas supply interruption to a residential customer not restored within 12 hours[31]	$80 per event

Source: Essential Services Commission Victoria, Gas Distribution System Code – version 8.1, 28 March 2007, p. 41.

[28] Appointments rescheduled by the gas businesses are counted as missed appointments. Appointments rescheduled by the customer are excluded from payments.
[29] Excluding force majeure, faults in customers' gas installations, transmission faults, third party events and upstream events.
[30] Excluding third party events
[31] Excluding force majeure, faults in customers' gas installations, transmission faults, third party events and upstream events.

D. Appendix: Network Performance Indicators

Table D.1 Gas supply reliability

Envestra						
	2003	**2004**	**2005**	**2006**	**2007**	**2008**
			Average minutes-off-supply per customer (SAIDI)			
Planned	0.49	1.24	1.32	3.56	2.74	3.63
Unplanned	2.68	2.98	2.69	2.35	1.68	1.84
Total	3.17	4.22	4.01	5.91	4.42	5.48
			Average number of interruptions per customer (SAIFI)			
Planned	0.001	0.003	0.004	0.010	0.008	0.010
Unplanned	0.011	0.013	0.012	0.008	0.007	0.008
Total	0.012	0.016	0.015	0.018	0.015	0.018
			Average interruption duration (CAIDI)			
Planned	358	360	360	360	360	360
Unplanned	251	238	228	285	241	236
Total	610	264	259	330	303	306
				Mechanical damage – gas mains		
Number of incidents	126	120	94	107	94	133
Damage per km	0.015	0.014	0.011	0.012	0.010	0.014
				Mechanical damage – service connections		
Number of incidents	1412	1319	1116	956	942	994
Damage per customer	0.003	0.003	0.002	0.002	0.002	0.002

Notes:
1 Envestra assumes six hours for each planned interruption.
2 Envestra assumes four hours for each unplanned single premise interruption.

Multinet						
	2003	**2004**	**2005**	**2006**	**2007**	**2008**
			Average minutes-off-supply per customer (SAIDI)			
Planned	4.08	4.15	6.20	6.89	5.41	1.83
Unplanned	1.88	2.12	2.48	2.28	2.16	1.49
Total	5.96	6.28	8.68	9.17	7.57	3.33
			Average number of interruptions per customer (SAIFI)			
Planned	0.011	0.012	0.017	0.019	0.015	0.005
Unplanned	0.008	0.009	0.010	0.009	0.010	0.007
Total	0.019	0.020	0.027	0.028	0.026	0.012
			Average interruption duration (CAIDI)			
Planned	360	360	360	360	360	360
Unplanned	237	249	260	262	206	211
Total	597	313	325	329	297	571
				Mechanical damage – gas mains		
Number of incidents	79	78	66	91	78	39
Damage per km	0.009	0.008	0.007	0.010	0.008	0.004
				Mechanical damage – service connections		
Number of incidents	1240	1214	1328	1 306	1 458	1 240
Damage per customer	0.002	0.002	0.002	0.002	0.002	0.002

Notes:
1 Multinet cannot specify the causes for unplanned interruptions affecting one customer.
2 Multinet assumes six hours for each planned interruption.
3 Multinet assumes four hours for each unplanned single premise interruption.

SP AusNet						
	2003	**2004**	**2005**	**2006**	**2007**	**2008**
			Average minutes-off-supply per customer (SAIDI)			
Planned	3.26	2.32	2.29	3.22	3.11	3.88
Unplanned	0.91	1.16	0.86	0.86	0.85	0.81
Total	4.18	3.49	3.15	4.08	3.96	4.68
			Average number of interruptions per customer (SAIFI)			
Planned	0.008	0.007	0.007	0.010	0.008	0.010
Unplanned	0.011	0.021	0.018	0.019	0.020	0.018
Total	0.019	0.027	0.025	0.029	0.028	0.028
			Average interruption duration (CAIDI)			
Planned	394	356	323	328	394	391
Unplanned	87	57	48	44	42	44
Total	481	129	125	139	141	166
			Mechanical damage – gas mains			
Number of incidents	108	72	96	81	95	103
Damage per km	0.013	0.008	0.011	0.009	0.010	0.011
			Mechanical damage – service connections			
Number of incidents	1227	1084	1057	1 081	1 122	1 314
Damage per customer	0.003	0.002	0.002	0.002	0.002	0.002

All distributors						
	2003	**2004**	**2005**	**2006**	**2007**	**2008**
			Average minutes-off-supply per customer (SAIDI)			
Planned	2.77	2.72	3.53	4.74	3.88	3.03
Unplanned	1.78	2.09	2.04	1.86	1.60	1.34
Total	4.55	4.81	5.57	6.60	5.48	4.41
			Average number of interruptions per customer (SAIFI)			
Planned	0.008	0.008	0.010	0.013	0.011	0.008
Unplanned	0.009	0.013	0.013	0.012	0.012	0.011
Total	0.017	0.021	0.023	0.025	0.023	0.019
			Average interruption duration (CAIDI)			
Planned	367	359	352	355	368	372
Unplanned	187	156	159	156	129	127
Total	554	229	244	261	238	232
			Mechanical damage – gas mains			
Number of incidents	313	270	253	279	267	275
Damage per km	0.012	0.010	0.009	0.010	0.010	0.010
			Mechanical damage – service connections			
Number of incidents	3879	3617	3387	3 343	3 522	3 548
Damage per customer	0.003	0.002	0.002	0.002	0.002	0.002

Notes:
1 Multinet cannot specify the causes for unplanned interruptions affecting one customer.
2 Envestra and Multinet assume six hours for each planned interruption.
3 Envestra and Multinet assume four hours for each unplanned single premise interruption.

Table D.2 Number of outages affecting fewer than five customers

	2001	2002	2003	2004	2005	2006	2007	2008
Envestra	7 048	5 589	3 861	5 712	5 300	3 413	3 149	3 648
Multinet	8 213	4 828	4 163	4 858	5 684	4 899	6 310	4332
SP AusNet	532	1 823	3 991	8 677	8 049	9 225	9 649	9 192
All distributors	15 793	12 240	12 015	19 247	19 033	17 537	19 108	17 172

Table D.3 Number of outages affecting five or more customers

	2001	2002	2003	2004	2005	2006	2007	2008
Envestra	19	16	15	8	6	13	25	14
Multinet	24	19	37	30	26	33	21	16
SP AusNet	10	10	31	25	22	23	29	20
All distributors	53	45	83	63	54	69	75	50

Table D.4 Number of gas leaks per kilometre of gas mains

	Average repaired leaks				Average unrepaired leaks per month			
	2005	**2006**	**2007**	**2008**	**2005**	**2006**	**2007**	**2008**
Envestra	0.99	1.11	1.07	0.84	0.18	0.21	0.28	0.21
Multinet	1.22	1.18	1.13	1.14	0.10	0.03[a]	0.02[a]	0.03
SP AusNet	1.15	1.16	1.20	1.16	0.33	0.19	0.01	0.03

Note:[a] In consultation with Energy Safe Victoria, Multinet has changed the way it calculates unrepaired leaks and the figures after 2006 are not directly comparable with those of previous years.

Table D.5 Number of complaints per 1000 customers

	Connection and augmentation				Quality and reliability of supply				Other complaints			
	2005	2006	2007	2008	2005	2006	2007	2008	2005	2006	2007	2008
Envestra	0.172	0.074	0.029	0.081	0.084	0.193	0.114	0.153	0.958	0.920	0.819	0.705
Multinet	0.078	0.031	0.087	0.384	0.568	0.148	0.093	0.188	1.574	1.389	1.198	0.958
SP AusNet	0.223	0.146	0.252	0.530	0.209	0.107	0.127	0.055	1.082	0.297	0.441	0.565
All distributors	0.151	0.080	0.121	0.327	0.312	0.149	0.110	0.134	1.237	0.908	0.846	0.757

E. Appendix: Significant supply interruption events

Energy Safe Victoria (ESV) advised the following significant gas supply interruption events of 2008 (listed by DNSP, in order of severity).

Distributor	Data	Location	Remarks
SP AusNet	9 April	Welfare/Hereford Street, Portarlington	Loss of supply to 15 dwellings due to damage of 63 mm PE main by third party.
SP AusNet	7 May	Hopetoun, Chapel St and Bendigo	Loss of supply to 32 houses due to hit on main due to directional boring by third party
SP AusNet	17 July	Highton	Loss of supply to 75 houses due to incorrect information at mains replacement project.
Jemena – Multinet	3 September	Chadstone	Loss of supply to 26 houses due to damaged 50 mm gas main.
APA – Envestra	11 September	Reservoir	Loss of supply to approximately 30-35 houses due to broken 4" low pressure iron gas main due to contractors.
Jemena – Multinet	21 September	St Kilda	Loss of supply to residential block and evacuation of 90 persons, due to an electrician contractor's damage to a 150 mm low pressure gas main.
APA – Envestra	28 November	Thornbury	Loss of supply to approximately 69 houses due to a drainage contractor's excavator damage of a 100 mm low pressure PVC gas main.

F. Appendix: Background information of distributors

Table F.1 Total distribution customers

	2006			2007			2008		
	Domestic	**Non-domestic**	**Total**	**Domestic**	**Non-domestic**	**Total**	**Domestic**	**Non-domestic**	**Total**
Envestra	486 040	22 551	508 591	499 046	23 135	522 181	511 622	23 706	535 328
Multinet	622 000	22 000	644 000	624 400	21 700	646 100	640 200	16 900	657 100
SP AusNet	505 585	15 355	520 940	519 386	15 498	534 884	535 502	15 595	551 097
All distributors	1 613 625	59 906	1 673 531	1 642 832	60 333	1 703 165	1 687 324	56 201	1 743 525

Note: Figures include those customers where reference tariffs do not apply, for example Envestra's customers in Mildura and Bairnsdale. The figures are therefore slightly different from those shown in Table 3.3.

Table F.2 Network composition

	Transmission mains (km)	**Distribution mains (km)**	**Customers per km of distribution mains**
Envestra	314	9 517	55.6
Multinet	158	9 670	67.4
SP AusNet	182	9 282	58.5
All distributors	654	28 469	60.5

Figure F.1 Victorian gas distribution network by material

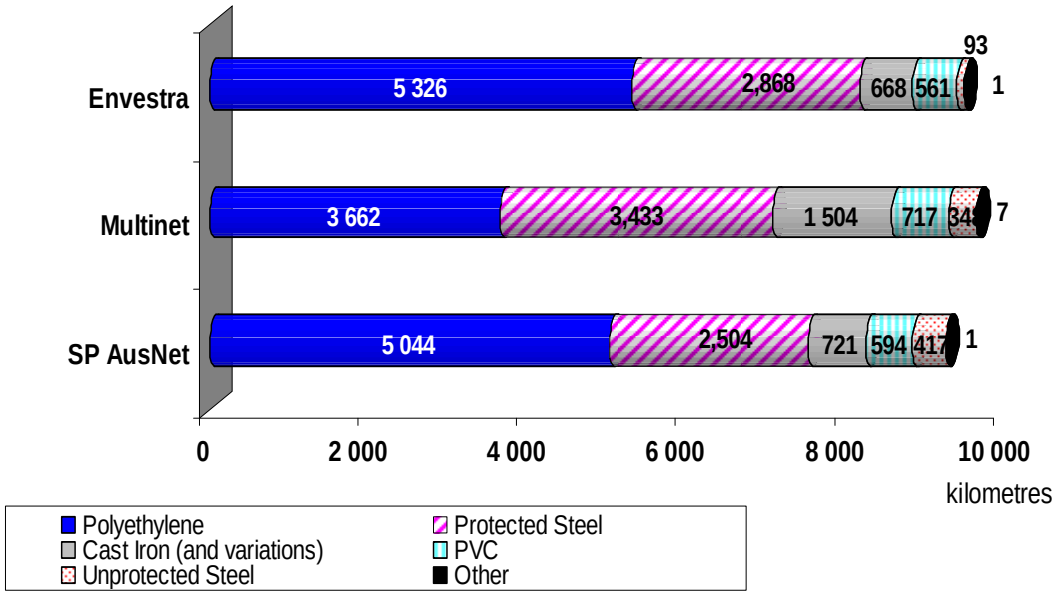
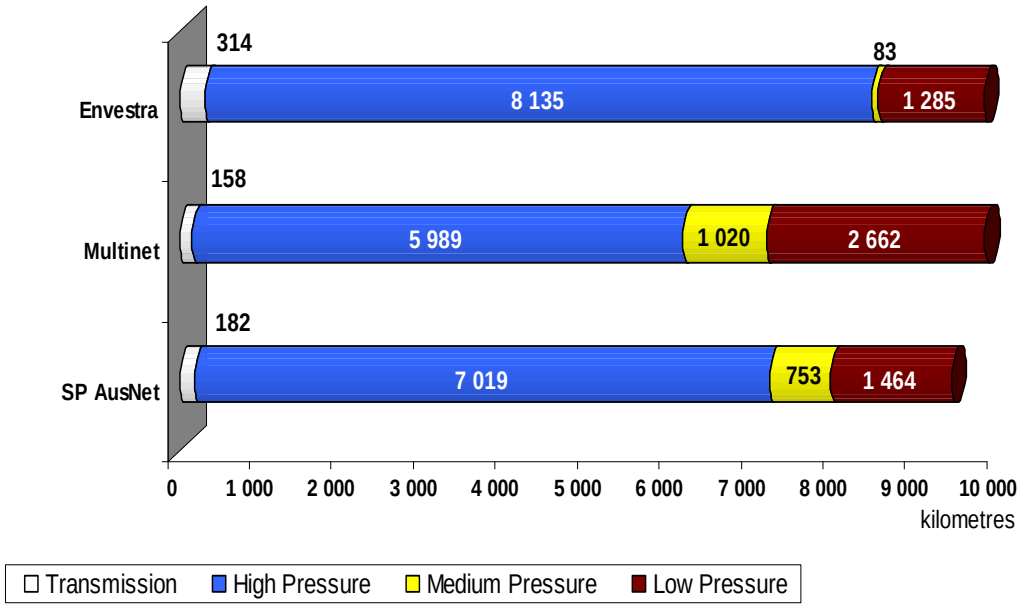


Figure F.2 Victorian gas distribution system by pressure



G. Appendix: description of priority ‘A’ gas leak incidents

Code	Brief description	Detail description
CSL	Critical supply loss (for example, hospital equipment)	To be used when the loss of supply is life-threatening (such as when hospital equipment is affected), or when loss of supply could adversely affect the state’s economy (major industry is impacted). Replaces old enquiry code AHEZ — hospital equipment out of use.
EBD	Escape — bad	Any uncontrollable gas leak or presence of gas inside/under a house, other building or inside a basement, or a severe escape outside a building not already covered by other priority A codes. In determining the severity of an escape outside a building the operator must rely on the caller’s description, considering factors such as length of time noticed, how strong or bad the odour is, can the gas be heard escaping etc. Special instruction field must be populated with further detail.
EBS	Escape — bad, street	A bad street escape is generally the result of a main or service pipe being broken by workmen involved in some form of excavation work. In most cases, the broken pipe will already have been exposed by the workmen. Advise not to attempt to cover or hose the leak, keep bystanders away from the immediate area, and do not start or move machinery at the site (may ignite). Ground movement may also cause a main or service pipe to be broken resulting in a bad street escape.
EFB	Police and/or fire brigade	Used if notification of a fire or gas escape is received from either the police or fire brigade.
EMG	Emergency	Use in situations that would require corporate management to be advised, or would result in a level 4 or 5 Emergency
EXP	Explosion	An explosion in a main, service pipe, fitting line or appliance. For explosion in transmission pressure main or facility, refer to EMG.
FAP	Fire — appliance	A fire can occur at a gas appliance without the appliance burning and it can spread to adjoining fixtures in the house. If the appliance is the cause of the fire, this enquiry code should be used.
FAT	Fatalities	If fatal accident or serious injury has resulted from a problem in the gas reticulation network. This would include death caused by a gas escape, fire or explosion.
FHS	Fire — house	When a house fire is reported at an address which has gas supplied. Fires reported by the fire brigade must be processed using this enquiry code.
FMN	Fire — main	When a gas escape from a main has ignited. The gas escape may be the result of damage to the main during excavation in the street. A fire at a main can also be reported as a nature strip or road fire. Gas leaking from the underground main escapes to the surface and ignites.
FMT	Fire — meter	While gas meters do not burn, the lead connections, meter gaskets and regulator diaphragms can melt or burn and fuel fire. Gas escaping from the meter can ignite, engulfing it in flames. This can be a threat to a house, depending on the meter location.
FSV	Fire — service	When a fire is reported in a customer’s yard. It may be due to gas escaping from either the service pipe or fitting line. If the fire is between the house and the gas meter, the fire could be the result of a gas escape in the fitting line. This type of escape can be made safe by turning off the gas supply at the meter. If the fire is in between the gas meter and the property boundary, it should be treated as an FSV.