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Gas distribution quality of service report 2007 - 2008

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Target Audience: Consumers, consumer representatives, gas distribution networks and other interested parties

Overview:

This report is a summary of the quality of service information relating to the gas distribution networks for the year 2007 - 2008.

There are a variety of obligations on the gas distribution networks companies designed to ensure that they provide a high quality of service to customers. These obligations cover areas such as interruptions to supply, customer satisfaction and environmental performance. The network companies supply information to Ofgem in accordance with the Regulatory Instructions and Guidance document.

This is the sixth annual quality of service report to be published by Ofgem.

Contact name and details: Tom Wood, Senior Analyst

Tel: 0207 901 7418

Email: tom.wood@ofgem.gov.uk

Team: Gas Distribution

Context

As the companies which own and operate the gas distribution networks (GDNs) in Great Britain are monopolies, Ofgem sets limits on how much these companies can charge their customers. As the GDNs look to reduce the costs of running their businesses, there is a possibility that the quality of service that they provide could also be reduced. To safeguard against this risk, Ofgem has put in place arrangements to monitor the service provided by the GDNs.

Condition D9 of the gas transporter licence requires the gas distribution network companies to gather specified information each year and to provide that information to Ofgem. This report is a summary of the information provided for the period beginning on 1 April 2007 and ending on 31 March 2008.

Associated Documents

Gas Distribution Quality of Service Regulatory Instructions and Guidance version 3, March 2005 (Ref. No. 100/05):
http://www.ofgem.gov.uk/Networks/GasDistr/QoS/Documents1/10354-10005.pdf

Gas Distribution Quality of Service Regulatory Instructions and Guidance version 4, August 2008 (Ref. No. 111/08):
http://www.ofgem.gov.uk/Networks/GasDistr/QoS/Documents1/Gas%20Distribution%20Quality%20of%20Service%20Regulatory%20Instructions%20and%20Guidance%20FINAL.pdf

Gas Distribution Price Control Review Final Proposals, December 2007 (Ref. No. 285/07): http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf

2006-07 Gas Distribution Quality of Service Report, December 2007 (Ref. No. 294/07):
http://www.ofgem.gov.uk/Networks/GasDistr/QoS/Documents1/Gas%20Distribution%20QoS%20report%200607%20Final.pdf

2005-06 Gas Distribution Quality of Service Report, December 2006 (Ref. No. 210/06): http://www.ofgem.gov.uk/Networks/GasDistr/QoS/Documents1/16406-210_06.pdf

2004-05 Gas Distribution Quality of Service Report, December 2005 (Ref. No. 280/05):
http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/13213_280_05.pdf

2003-04 Gas Distribution Quality of Service Report, April 2005 (Ref. No. 119/05):
http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/11148_11905.pdf

2002-03 Gas Distribution Quality of Supply Report, March 2004 (Ref. No. 71/04):
http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/6642_7104.pdf

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Summary

The quality of service provided by the gas distribution networks (GDNs) in Great Britain is a key priority for Ofgem. The term quality of service covers a wide range of areas: from the number of gas supply interruptions that customers experience and the amount of greenhouse gasses lost from the pipeline networks to the replacement of older gas mains with newer, safer ones.

Our principal objective is to protect the interests of gas and electricity consumers and there are a variety of ways in which we ensure that the service provided by the GDNs is of a sufficiently high quality. These include a compensation scheme where GDNs pay customers if they fail to meet certain standards, licence conditions requiring the GDNs to meet specified performance targets and other reporting requirements.

The purpose of this report is to provide a summary of the quality of service provided by the GDNs in 2007-08. This is the sixth report we has published on the quality of service performance of the GDNs.

This report covers four key areas of quality of service: interruptions, customer satisfaction surveys, the mains replacement programme and environmental issues. We have seen some improvement in customer satisfaction survey scores and a reduction in gas leakage over the past year. On mains replacement, the industry has managed to meet the HSE target for the decommissioning of iron pipelines. The number of reported interruptions has increased over last year, with the most probable cause for this being changes made to the GDNs reporting processes.

Following the implementation of the latest price control review[1] on 1 April 2008, the GDNs have been subject to a number of new or strengthened incentives covering such areas as mains and service replacement and environmental emissions. We anticipate that this will serve to further drive up the quality of service provided by the GDNs over the coming years. The key findings of this report are as follows:

Interruptions

Unplanned interruptions result in the loss of gas supply to customers' premises. These events are predominantly due to an element of network failure caused either by equipment failure or damage to the gas distribution assets. The total number of unplanned interruptions minutes has fallen from 75.7 million minutes in 2006-07 to 68.3 million. Around one third of all of the unplanned minutes lost in 2006-07 were caused by a single incident, so a major decrease was anticipated. The number of unplanned interruptions has increased to 87,000 in comparison to 72,000 last year. The increases in this area have largely been attributed to mechanical failures of pipes and plant and leaking service pipes, although changes to the GDNs' interruption recording processes appear to be the principal reason for the increase in the number of interruptions reported this year.

[1] Gas Distribution Price Control Review Final Proposals, December 2007 (Ref. No. 285/07): http://www.ofgem.gov.uk/Networks/GasDistr/GDPCR7-13/Documents1/final%20proposals.pdf

Planned interruptions are associated primarily with the GDNs mains replacement programme which requires the removal of all iron mains within 30m of a property over thirty years. This results in approximately 3 per cent of the UK's gas pipeline assets being replaced on an annual basis. The number of planned interruptions has increased from 380,000 reported in 2006-07 to 529,000 in 2007-08 and the number of interruption minutes from 172 million to 207 million.

Customer satisfaction surveys

The results of the quarterly customer satisfaction surveys show that levels of customer satisfaction for the industry as a whole have increased slightly in the last year. The average scores for both repair and replacement stand at 3.97 on the five-point scale, up on 3.93 and 3.90, respectively, last year.

Mains replacement programme

The GDNs' programme of decommissioning at least 3,500km of 'at risk' gas mains continued in 2007-08 and the total length of mains decommissioned was 3,945km.

Environmental issues

Driven by the mains replacement programme and advancements in the use of pressure control equipment, the amount of methane emitted by the GDNs has continued to decrease. Seven of the eight GDNs' methane emission figures were lower than those reported last year.

1. Introduction

1.1. This is the annual report on quality of service for the gas distribution networks. It is the sixth such report that we have published.

1.2. Under Condition D9 of the gas transporters licence, each of the eight gas distribution networks (GDNs) must gather specified information and provide it to us once a year. This report is a summary of the information on the quality of the service provided by the gas distribution networks in the period between 1 April 2007 and 31 March 2008.

1.3. We specify the information that we require in a document called the Regulatory Instructions and Guidance (RIGs). The information that is discussed in this document was specified in version 3 of the RIGS.

1.4. GDNs are required to supply data on themes such as the number and duration of interruptions to customers' gas supply, customer satisfaction surveys, the mains replacement programme and the environmental performance. These areas are covered in detail in following chapters

1.5. The document is structured as follows:

- Chapter 2 - A summary of the information on the number and duration of supply interruptions.
- Chapter 3 - The results from the customer satisfaction surveys carried out this year.
- Chapter 4 - A summary of the GDNs' gas mains replacement activities for this year.
- Chapter 5 - Information on the environmental performance of the GDNs.
- Chapter 6 - Changes to the quality of service arrangements.

Gas distribution in Great Britain

1.6. Natural gas is brought into Great Britain from the gas fields in the North Sea, via pipelines linking us with continental Europe and from liquefied natural gas (LNG) terminals. The national transmission system (NTS) is a network of pipelines that takes gas from where it is brought onshore and transports it at high pressures across Great Britain. The GDNs are linked to the NTS at various points called offtakes. The GDNs transport gas at lower pressures from the offtakes to the homes and businesses of gas customers.

1.7. The GDNs' main responsibilities are the operation, maintenance, repair and renewal of their networks, the provision of emergency service personnel to gas emergencies and the provision of gas connections to premises within their network area.

1.8. Customers buy gas from supply companies and not from the GDNs. The GDNs make money by charging for the transportation of gas, which they do not own, via their pipeline networks. The GDNs are monopoly companies as they have no direct competitors for the distribution of gas. We regulate these companies by setting limits on the revenues that they can earn.

1.9. We have a principal statutory duty to protect the interests of consumers, present and future. For this reason, we have put in place arrangements to monitor the service provided by the GDNs.

1.10. This report covers the period of the one year gas distribution price control from 1 April 2007 to 31 March 2008. The new price control period commenced on 1 April 2008 and is due to end in March 2013. As a part of our work on the new price control, we introduced a number of new measures designed to improve our monitoring of the GDNs. You can read more on this in chapter 6. We will start to publish information on GDN performance against these new measures next year.

1.11. Our reports covering GDN quality of service over the last six years have been published as stand-alone documents. This is due to change from 2008-09, when we expect to publish a report containing information on GDN costs and revenues as well as quality of service, which we believe will provide a more rounded, more comprehensive picture of the performance of the GDNs.

The gas distribution network companies

1.12. There are eight gas distribution networks in Great Britain: East of England, London, the North West, the West Midlands, the North of England, Scotland, Southern and Wales & West. They are owned by four companies: National Grid Gas, Northern Gas Networks, Scotia Gas Networks and Wales & West Utilities.

National Grid Gas

1.13. National Grid Gas plc (NGG) is part of National Grid plc. It owns four GDNs, covering the East of England, North London the North West and the West Midlands. NGG previously owned all eight networks but chose to sell four of these in 2005. National Grid also owns and operates the NTS.

1.14. NGG's four GDNs are covered by a single Gas Transporter's licence, though each of the GDNs has a separate price control. For the purposes of this report, NGG supplies information on each of its GDNs separately, rather than on the company as a whole.

Northern Gas Networks

1.15. Northern Gas Networks (NGN) is the owner of the North England GDN, having purchased it from NGG in 2005. This GDN covers the area between the Scottish border and South Yorkshire.

1.16. NGN is owned by a consortium of five companies. NGN's operational delivery is carried out by one of these companies - United Utilities.

Scotia Gas Networks

1.17. Scotia Gas Networks (SGN) owns two GDNs, Southern and Scotland. The Southern GDN extends from Milton Keynes to Dover in the east and Lyme Regis in the west. It also covers those London boroughs south of the Thames. The Scotland GDN covers Scotland and includes the five independent networks at Stornoway, Wick, Thurso, Oban and Campbeltown, which are not connected to the main distribution system.

1.18. Unlike the GDNs owned by NGG, the two networks owned by SGN are contained within two separate companies. These are called Scotland Gas Networks and Southern Gas Networks. Each company holds its own gas transporter's licence. As with NGG, performance is reported at GDN, rather than ownership group level.

1.19. SGN's ultimate owners are the energy group Scottish & Southern Energy plc (50 per cent) and two Canadian pension funds (25 per cent each).

Wales and West Utilities

1.20. Wales and West Utilities (WWU) owns the Wales and West GDN. The network covers Wales and south-west England from Swindon to the tip of Cornwall. WWU is owned by a consortium led by the Macquarie European Infrastructure Fund.

Independent Gas Transporters

1.21. There are a number of Independent Gas Transporters (IGTs) which operate relatively small distribution networks, typically covering newly built properties. The licence conditions that apply to these companies are different to those that apply to the eight large GDNs and, for this reason, IGT performance is not covered under this report.

Some key characteristics of the GDNs

1.22. Table 1.1 shows some of the key characteristics of each of the GDNs - the number of customers, the lengths of the networks and the network materials.

Table 1.1 - Some key characteristics of the GDNs

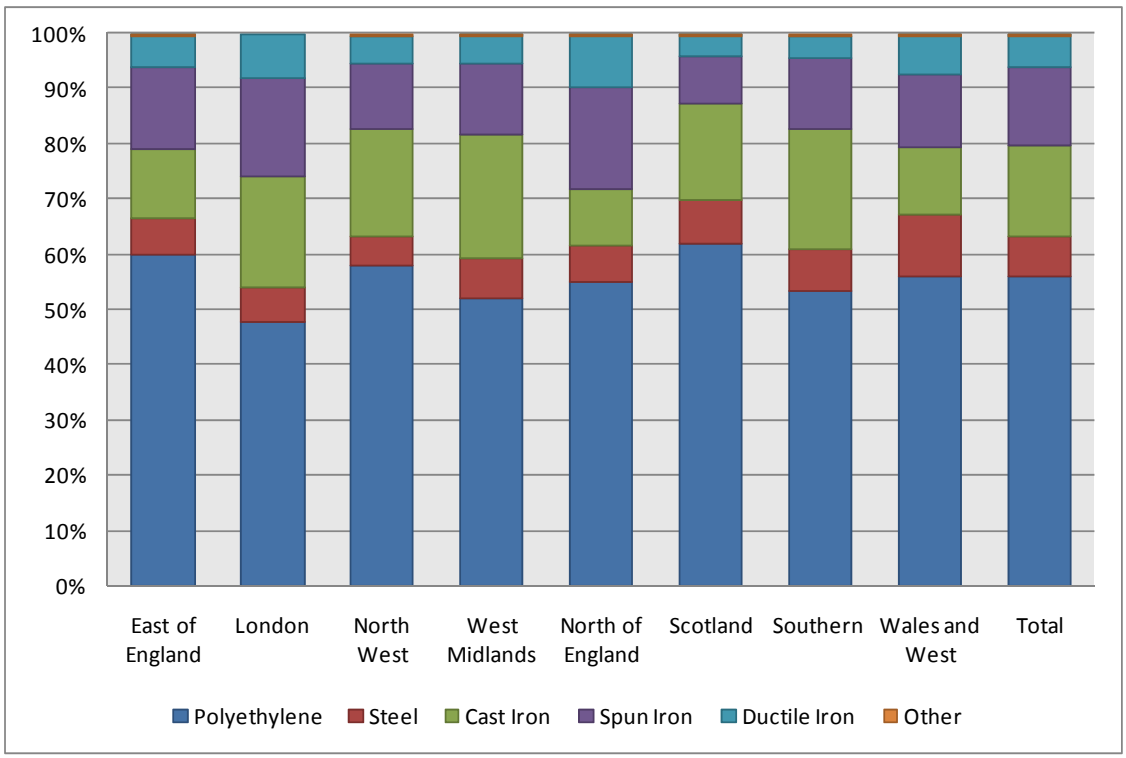
		NGG				NGN	SGN		WWU	Total
		East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	
Network lengths (km)	**Low pressure**	40,992	18,738	29,945	19,926	31,151	18,342	40,029	26,279	225,403
	Medium pressure	6,422	1,619	3,278	3,095	3,732	3,561	6,439	4,548	32,694
	Intermediate pressure	1,846	258	421	348	683	1,126	1,211	1,582	7,476
	Local Transmission System	2,477	685	947	883	1,194	1,334	1,755	2,412	11,687
	Total	51,738	21,300	34,592	24,253	36,759	24,362	49,435	34,820	277,260
Network materials (km)	**Polyethylene**	29,610	9,875	19,523	12,165	19,531	14,245	25,478	18,153	148,581
	Steel	3,234	1,283	1,755	1,670	2,419	1,849	3,659	3,591	19,459
	Cast Iron (>12")	286	744	676	467	253	206	780	1,382	4,794
	Cast Iron (<=12")	5,812	3,364	5,873	4,798	3,352	3,808	9,586	2,603	39,194
	Spun Iron (>12")	348	201	315	168	322	154	223	1,043	2,774
	Spun Iron (<=12")	7,021	3,484	3,713	2,855	6,276	1,835	5,893	3,212	34,288
	Ductile Iron	2,950	1,664	1,632	1,246	3,409	931	1,814	2,425	16,072
	Asbestos Cement	0	0	158	0	4	0	0	0	162
	PVC	0	0	1	0	0	0	247	0	248
	Other	0	0	0	0	0	1	0	0	2
	Total Mains	49,261	20,615	33,645	23,370	35,565	23,029	47,680	32,409	265,573
	Number of customers	3,941,377	2,284,082	2,678,620	1,950,314	2,490,449	1,735,710	4,005,052	2,411,381	21,496,985

Note: the network lengths information includes data on the Local Transmission System, the network materials information does not.

1.23. Figure 1.1 shows a breakdown of gas mains by material type across all GDNs. More than half of the pipe lines on the GDN network in Great Britain are made of Polyethylene (PE). The vast majority of newly installed pipelines are made from this material. Iron pipes can corrode and fracture, which is unsafe, particularly when this happens near to buildings. The installation of replacement PE pipes should reduce the number of occurrences of these types of failures.

1.24. The installation of this type pipe should also drive down the quantity of gas that leaks from the GDNs pipeline systems, thereby reducing the environmental impact as well as some of the costs associated with running the networks.

Figure 1.1 Mains material types - All GDNs



1.25. Ofgem and National Grid Gas are currently in the process of verifying the accuracy of the mains replacement data provided by NGG. Pending the outcome of this work, the figures on mains replacement and on overall network lengths (contained in table 1.1 above) may be subject to change.

2. Interruption reporting

Introduction

2.1. The GDNs are required to report on the number of customers whose supply of gas is interrupted each year. They also report on the average duration of interruptions on their network. The GDNs provide further information on the causes of interruptions and the types of customers who are affected.

2.2. It is important for GDNs to minimise the impact that gas supply interruptions have on customers. Unlike an electricity power cut, the supply of gas to a customer's premises cannot simply be switched back on following an interruption. During a gas interruption, air can enter the system, creating a potentially explosive mixture. For this reason, a gas engineer must visit a customer whose supply has been interrupted to purge the system of air and to relight the appliances. This can cause serious inconvenience to customers.

2.3. Most interruptions are caused by planned engineering works such as the diversion of pipelines at the request of a Local Authority or the replacement of service pipes. A smaller number of interruptions are unplanned and can be caused by things such as repair works needed after gas leaks or by third-parties damaging pipelines owned by the GDNs.

2.4. Table 2.1 below shows the number of interruptions per 100 customers across all of the GDNs over the last five years.

Table 2.1

Reported number of interruptions per 100 customers - All GDNs					
	2003-04	2004-05	2005-06	2006-07	2007-08
Planned interruptions	0.79	1.04	1.37	1.77	1.99
Unplanned interruptions	0.14	0.25	0.24	0.33	0.40
Total	0.92	1.29	1.61	2.10	2.40

(Following further analysis, the numbers of interruptions in 2006-07 reported here have changed from those reported in last year's publication)

2.5. Figures 2.1 and 2.2 show the average duration of planned and unplanned interruptions in minutes over the last two years.

Figure 2.1

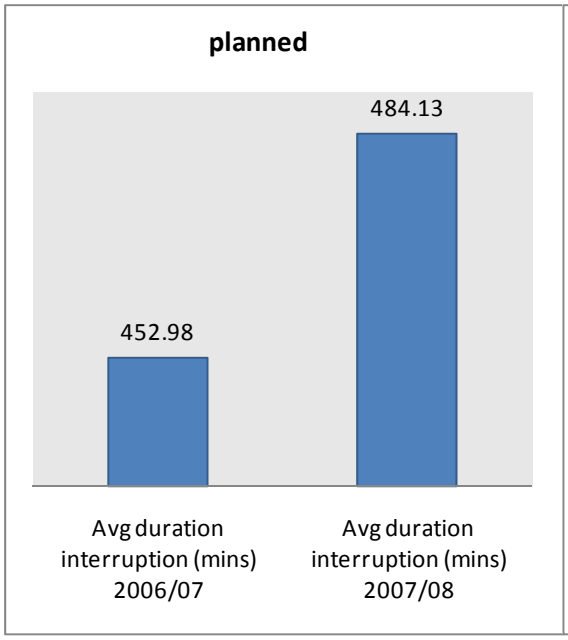
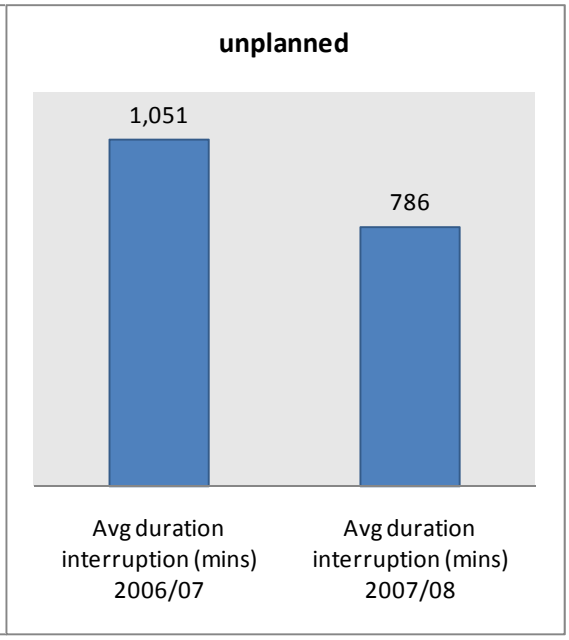


Figure 2.2



2.6. Though the number of reported interruptions per 100 customers has increased for both planned and unplanned interruptions in comparison to last year, it is important to note that a large proportion of these increases appear to have been due the GDNs improving their interruption reporting systems.

2.7. In 2004, Ofgem identified a number of concerns around the quality of the data being provided by the GDNs on the number and duration of interruptions. As a result, a requirement was placed on the GDNs to ensure that, from 1 April 2009, this data is at least 95 per cent accurate. Therefore we anticipate carrying out further, more robust analysis of apparent trends in this data in the coming years.

Unplanned interruptions

2.8. The total number of unplanned interruptions minutes across all networks has fallen from 75.7 million minutes to 68.3 million minutes - a decrease of around 7 million minutes. However, around one third of all of the unplanned minutes lost in 2006-07 (27 million minutes) were caused by one incident in the town of Crooke, which is served by Northern Gas Networks. As there has not been an incident of comparable size in 2007-08, a major decrease was anticipated.

2.9. Certain types of unplanned interruption have increased significantly in the past year. In particular, the number of reported interruption minutes caused by mechanical failures of pipe or plant has increased by around 12 million minutes.

2.10. The number of reported interruptions has increased in comparison to last year. The figure reported for 2006-07 was 72,000 interruptions, compared to 87,000 for 2007-08. This increase of 15,000 interruptions is mainly due to an increased number of reported interruptions caused by mechanical failures of pipe or plant and by leaking service pipes.

Planned interruptions

2.11. The number of planned interruptions has increased from 380,000 reported in 2006-07 to 529,000 in 2007-08 and the number of interruption minutes from 172 million to 207 million. Most of these increases are attributable to an increased number of interruptions initiated by the GDNs, rather than those initiated by consumers and shippers.

3. Customer satisfaction surveys

Introduction

3.1. The guidance that we have issued to the GDNs requires them to carry out quarterly postal surveys on their customers. There are two separate surveys: one covers those customers whose gas supply has been subject to an unplanned interruption and the other on customers who have experienced a planned interruption. The surveys are conducted by independent third-parties.

3.2. The questions relate to specific aspects of the work carried out by the GDNs to restore the customers' gas supplies. Customers are asked to rate their level of satisfaction on a five point scale, where 1 is very dissatisfied and 5 is very satisfied.

3.3. The GDNs supply lists of customers who have experienced work associated with the two categories of interruption to the independent third party, who then selects at random the people to send the surveys to. Certain customers can be excluded by the GDN from the list supplied, such as those who have experienced, or who live near to somebody who has experienced, a gas emergency.

3.4. Each of the GDNs provides the results of these surveys to us. This is important, as it helps us to understand customers' views on the works being carried out by the GDNs and to identify any areas where they may not be performing at the levels that their customers would want them to. If any of the results give us cause for concern, we can address the issue with the GDN to find out what may be causing the problem.

3.5. The customer satisfaction survey requirements were introduced in April 2005, so we able to see how GDNs have performed over the last three years. The information is also useful in comparing the performance of the GDNs against each other.

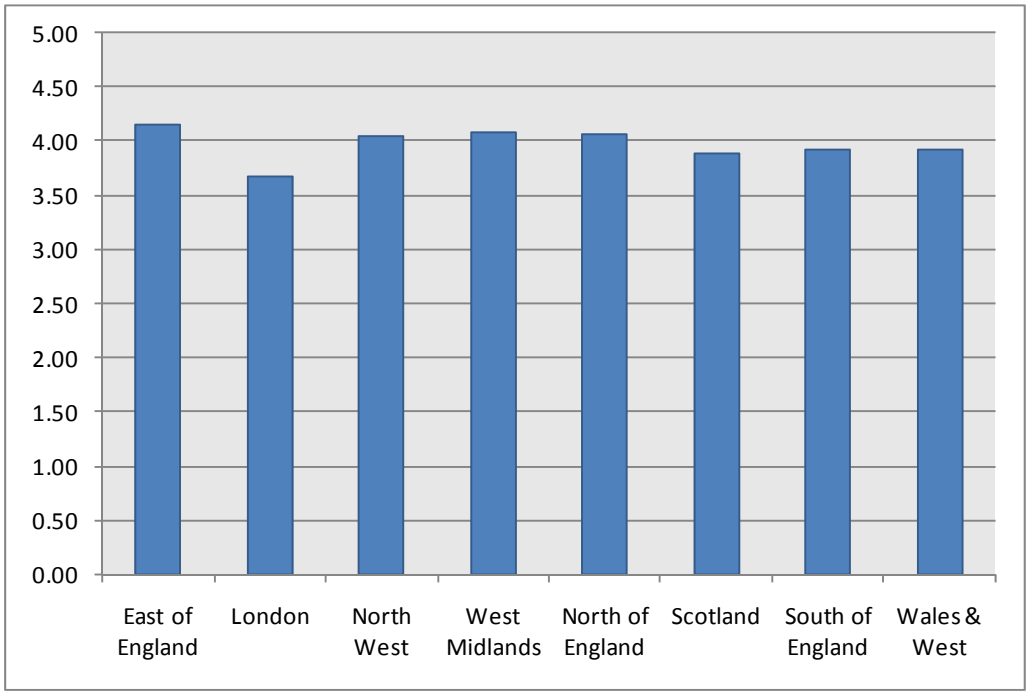
Repair

3.6. The scores displayed on Figure 3.1 below are the results of the surveys of customers who have experienced an unplanned interruption to their gas supply, where a GDN has had to carry out repair works. The scores shown are composites of the scores for individual questions on the customer's level of satisfaction with:

- the duration of the interruption;
- communication from the GDN;
- the skill and professionalism of the people who carried out the work; and
- the overall quality of the work.

3.7. The results show that the level of satisfaction is broadly consistent across the GDNs, with all of the combined scores falling between 3 ("neither satisfied nor dissatisfied") and 4 ("satisfied"). The highest satisfaction rating for 2007-08 was the East of England GDN with 4.14. London received the lowest satisfaction rating of 3.68.

Figure 3.1 Combined satisfaction scores 2007-08 - Repair

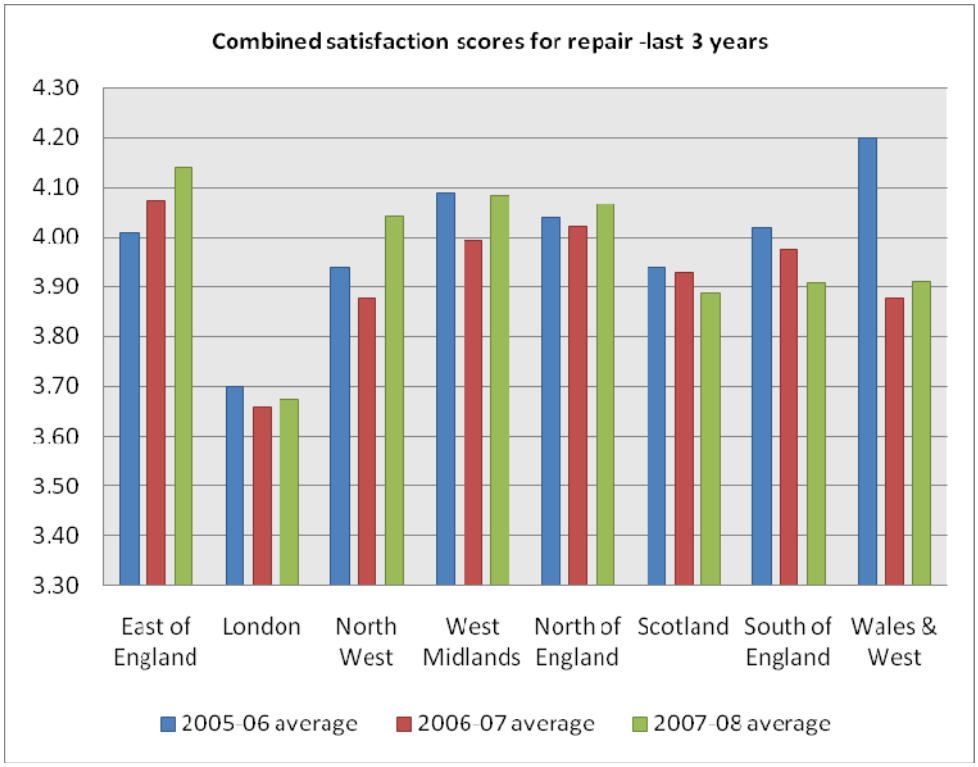


3.8. Table 3.1 and Figure 3.2 show the composite scores for repairs for each of three years since 2005/06, which was the first year in which the surveys were carried out. Four of the GDNs' scores are lower that they were in 2005/06, three are higher and one is the same.

Table 3.1 Combined satisfaction scores for repair - last 3 years

GDN	2005-06 average	2006-07 average	2007-08 average
East of England	4.01	4.08	4.14
London	3.70	3.66	3.68
North West	3.94	3.88	4.04
West Midlands	4.09	4.00	4.09
North of England	4.04	4.02	4.07
Scotland	3.94	3.93	3.89
South of England	4.02	3.98	3.91
Wales & West	4.20	3.88	3.91

Figure 3.2



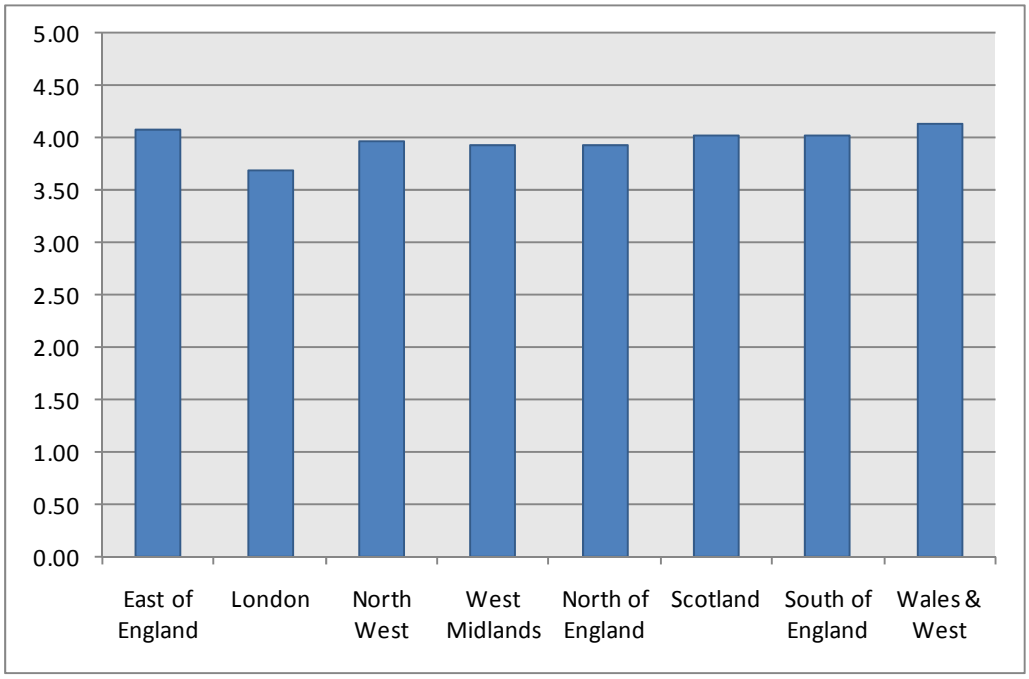
3.9. However, the magnitude of the increases and decreases across this three-year period are quite small with the largest increase being 0.10 and the largest decrease being 0.29. As is shown in figure 3.4, the average across all of the GDNs has seen a small decrease of 0.02, falling from 3.99 to 3.97.

Replacement

3.10. The scores displayed on Figure 3.3 below are the results of the surveys of customers who have experienced an interruption to their gas supply that was planned by a GDN and where a GDN has had to carry out replacement works. As with the scores for repair works, the scores below are composites of the scores for individual questions on the customer's level of satisfaction with:

- the duration of the interruption;
- the advanced notification of the interruption
- communication from the GDN;
- the skill and professionalism of the people who carried out the work; and
- overall satisfaction with the quality of the work.

Figure 3.3 Combined satisfaction scores 2007-08 - Replacement



3.11. These results show that the level of satisfaction is even more consistent across the GDNs than is the case with the results for repairs. Individual GDNs scores are between 3.68 and 4.13. The average across all GDNs is 3.97, which suggests that the overall level of satisfaction amongst customers is quite high.

3.12. Table 3.2 and Figure 3.4 show the composite scores for replacements across the last three years. Two of the GDNs scores are lower that they were in 2005-06, five are higher and one is the same. The average across all of the GDNs has increased from 3.86 to 3.97 (see figure 3.5)

Table 3.2 Combined satisfaction scores for replacement -last 3 years

GDN	2005-06 average	2006-07 average	2007-08 average
East of England	3.94	3.99	4.08
London	3.68	3.66	3.68
North West	3.70	3.77	3.96
West Midlands	3.94	4.00	3.93
North of England	3.74	3.92	3.92
Scotland	3.97	4.00	4.01
South of England	3.90	3.89	4.01
Wales & West	4.01	3.95	4.13

Figure 3.4

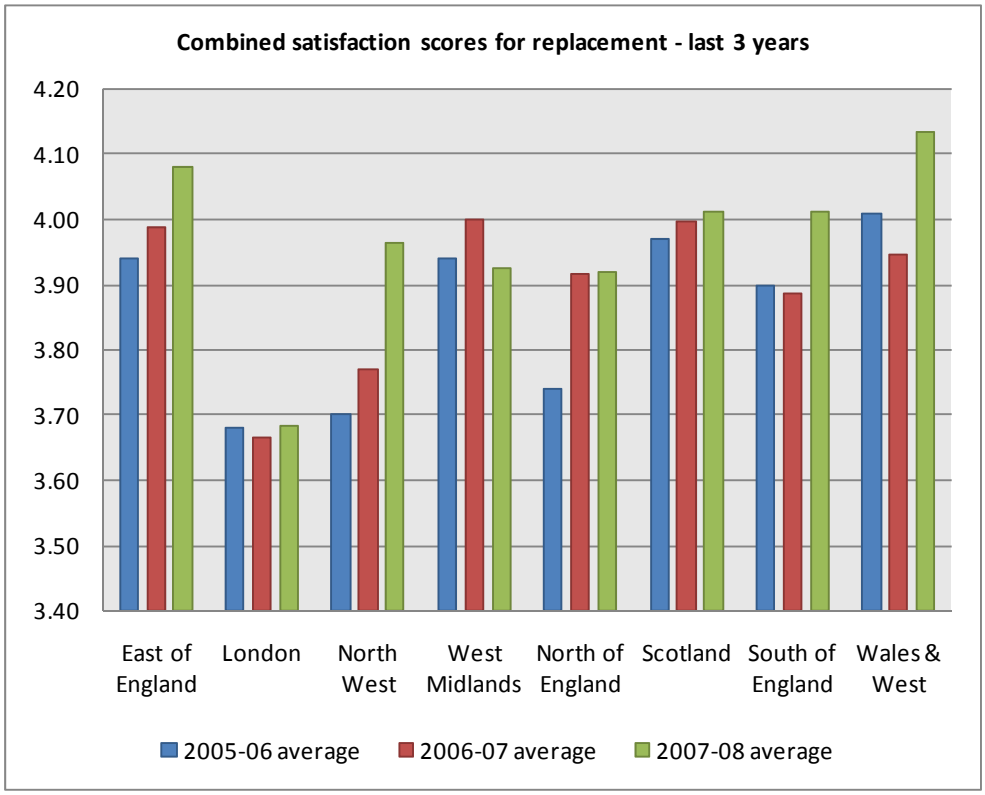
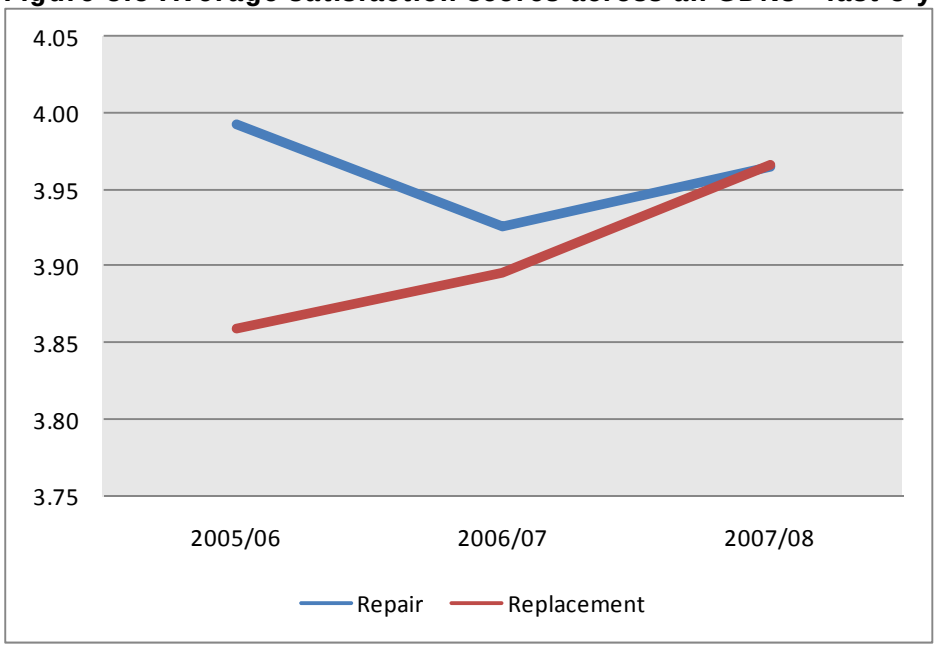


Figure 3.5 Average satisfaction scores across all GDNs - last 3 years



4. Mains replacement programme

4.1. In September 2001, the Health and Safety Executive (HSE) published its document "*Enforcement policy for the replacement of iron gas mains*". In it, the HSE concluded that it was realistic and practicable for Transco (now NGG), which owned all of the GDNs at the time, to speed up its rate of replacing 'at risk' iron mains (those within thirty metres of buildings) over the next five years so that all such mains could be replaced within no more than 30 years. This is referred to as the '30/30 programme'

4.2. In 2005, the HSE reviewed this policy. It concluded that the 30/30 programme was fit for purpose and should continue until at least the end of the current price control period ending in 2013. The HSE said that at least 3500 kilometres of mains should be replaced each year during this period. The aim of the programme remains to reduce the level of risk associated with the gas distribution networks through the replacement of older iron gas mains with new polyethylene pipes.

4.3. The charges levied on the GDNs customers reflect to some extent the mains replacement workload that the GDNs expect to carry out in the year, so, from this perspective too, it is important for us to ensure that the work done by the networks is broadly as we anticipated and to understand any significant divergences.

4.4. The GDNs report to us each year on the length of mains that have been decommissioned and installed on their network. Tables 4.1 and 4.2 show the total lengths of mains decommissioned and the total lengths of new mains installed since the start of the price control period commencing in 2002. The figures show that the lengths of main installed and decommissioned each year have increased steadily over this period. This ramp up was built into the 30 year programme to enable the GDNs and their contractors to increase the size of the workforce required to meet the 30 year programme.

Table 4.1 Total decommissioned mains across all GDNs (km)

Internal Diameter	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Total
2-3"	351	486	561	619	552	573	3,142
4-5"	679	1,417	1,484	1,990	2,140	2,105	9,815
6-7"	475	439	519	474	554	643	3,103
8-9"	425	209	215	163	196	241	1,449
10-12"	452	162	176	112	151	181	1,234
>12"	255	125	187	170	190	203	1,130
TOTAL	2,637	2,838	3,142	3,528	3,783	3,945	19,873

Table 4.2 Total mains installed across all GDNs (km)

External Diameter	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Total
</=75mm	461	893	1,091	1,509	1,519	1,593	7,066
>75-125mm	593	973	1,017	1,284	1,426	1,367	6,660
>125-180mm	404	251	290	249	329	397	1,920
>180-250mm	347	97	137	92	110	129	912
>250-355mm	339	107	122	123	133	165	989
>355mm	151	48	83	38	75	67	462
TOTAL	2,295	2,369	2,740	3,295	3,592	3,718	18,008

4.5. The total length of mains decommissioned in 2007-08 was 3,945km so the HSE requirement of replacing 3,500km of mains per year was achieved. The total length installed was 3,718km.

4.6. Looking at the allowed lengths of mains to be decommissioned by each of the GDNs in 2007-08 - the lengths of mains to be decommissioned for which the GDNs have been funded - East of England and Northern Gas Networks decommissioned fewer km of mains than allowed, by less than 1km in the case of the latter. The allowed length for the East of England GDN was 774.5km. 724km was the length of mains actually decommissioned. Each of the other six GDNs exceeded the lengths on which the allowances were based.

4.7. It is important to note that the GDNs retain some flexibility in deciding the exact makeup of works in a given year. For example, a GDN may choose to replace ten kilometres of a more expensive type of main rather than fifteen kilometres of a less expensive type of main, in order to carry out the works in the most efficient way. Furthermore the HSE allows NGG to reallocate workload between its GDNs, provided that the total NGG mains decommissioning target is met.

4.8. Another example would be where, in responding to an emergency, a GDN is required to replace a section of gas main. In this situation, the GDN will do so regardless of the diameter of that main. This could have some effect on the overall lengths of mains replaced in given year.

4.9. For these reasons, it is important to consider not only the total lengths of mains decommissioned each year, but also at the makeup of the works carried out across the mains diameter bands.

4.10. More detailed data on the mains replacement activities of each of the GDNs can be found in Appendix 1 of this document.

5. Environmental issues

5.1. The RIGs require the GDNs to provide information on the amount on gas emitted from their networks. Methane is the principal component of natural gas. As it is a greenhouse gas it is important for us to monitor the quantities of gas being emitted by the distribution networks. Ofgem is required by law to carry out its functions in a way that contributes to the achievement of sustainable development.

5.2. The GDNs must also report on any losses of containment at sites covered under the Control of Major Accident Hazard Regulations (COMAH). There has been no such loss of containment reported for 2007-08.

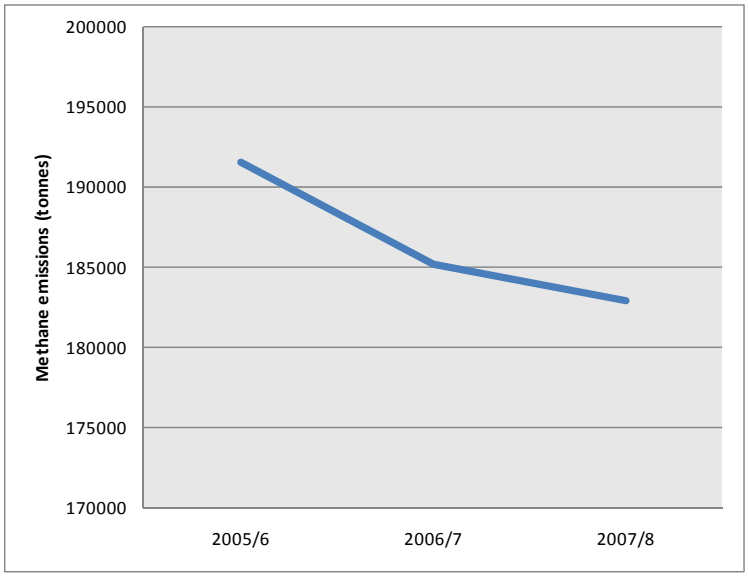
5.3. More than 90 per cent of the gas emissions covered by this report are caused by leakage from low pressure pipes. The quantities of natural gas and methane emitted from the GDNs networks over the last three years are shown in Table 5.1 below.

5.4. Figure 5.1 shows that the quantities of methane emitted have decreased over the last three years. All emissions from medium pressure pipes have fallen by around 12 per cent and all emissions from low pressure pipes have fallen by around 4 per cent over this period. The chief drivers for the decreases seen in this area are the GDNs mains replacement programmes, described in more detail in section 5 of this report.

Table 5.1 Total GDN emissions in tonnes (last three years)

	2005-06	2006-07	2007-08
Methane emissions from medium pressure pipes	15,329	14,865	13,502
Methane emissions from low pressure pipes	17,6243	170,314	169,407
Natural gas emissions from medium pressure pipes	19,430	18,698	16,990
Natural gas emissions from low pressure pipes	222,601	213,169	212,658

Figure 5.1 methane emissions across all GDNs - last 3 years

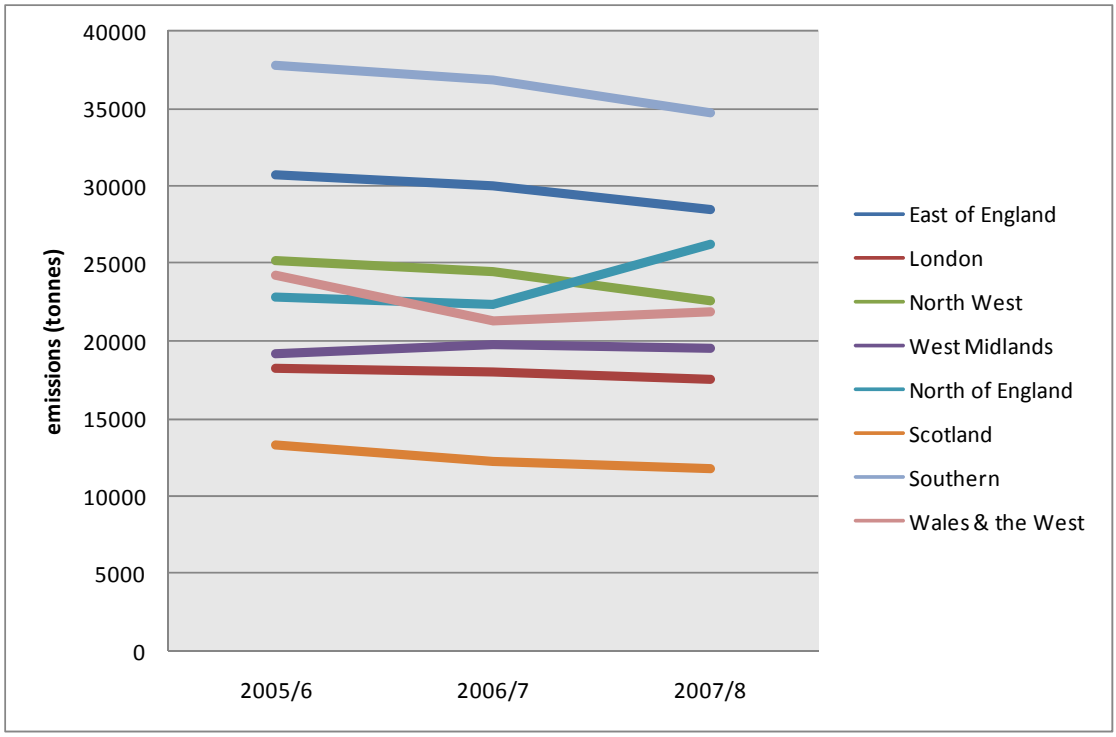


5.5. Looking at the figures for the eight individual GDNs in Figure 5.2, only the West Midlands network has seen an increase in emissions over this three-year period, where emissions from low pressure pipes have increased by around 3 per cent.

5.6. Two distribution networks, Wales and West and West Midlands, have seen slightly increased emissions from their low pressure pipelines in the last year. Emissions from Wales and West and West Midlands GDNs increased by around 3 per cent and 0.25 per cent, respectively. In both cases, the GDNs have stated that this can be attributed to increases in system pressure, which have offset the decreases driven by the mains replacement programme. Overall, West Midlands' emissions were lower than last year.

5.7. Though the emissions figures submitted by Northern Gas Networks appear to show an increase on last year's figures, NGN has informed us that this is due to their using a different calculation in converting the volumes of gas emitted into tonnes. Had the calculation used been the same as that used last year, a decrease would have been seen in the figures for both low and medium pressure pipes. The figures reported by the GDNs in this section are based on a model, rather than being directly measured.

Figure 5.2 Total methane emissions by GDN - last 3 years



6. Changes to the quality of service arrangements

6.1. 2007-08 was the final year in which the GDNs reported under version 3 of the quality of service RIGs. Version 4 of the RIGs was published in August 2007 and sets out the reporting requirements for the GDNs for the current five-year price control period.

6.2. The new RIGs document contains a number of changes to the reporting requirements on the GDNs. The most significant of these are:

- The introduction of a third type of customer satisfaction survey, covering customers who have requested a quote from a GDN for a new gas connection or an alteration to their existing connection;
- Changes to the customer satisfaction survey on repairs, so that it also covers customers who have contacted the gas emergency telephone line to report a leak or an interruption to their gas supply;
- Changes to each of the questionnaires to move from using a five-point to a ten-point satisfaction scale. This should help us to better differentiate between the GDNs in this area;
- The introduction of new requirements relating to the accuracy of pipeline records. We recognise the importance of the GDNs maintaining high-quality asset information and so have introduced a requirement for the GDNs to provide information on the number and length of pipeline records digitised during the year, and;
- The establishment of a Discretionary Reward Scheme, which will provide GDNs with an extra incentive to improve their customer service in areas such as the reduction of the environmental impact of gas distribution. Up to £20 million will be available across the five-year price control period for eligible schemes.

6.3. These requirements came into effect on 1 April 2008. Information on GDN performance in these areas will be covered in the quality of service report for the 2008-09, which we expect to publish in 2009.

Appendices

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Appendix 1 - Mains Replacement Activity by GDN

The following tables show the lengths of mains in kilometres decommissioned and installed by each of the GDNs since the year 2002-03

2002-03

	NGG				NGN	SGN		WWU	
Mains Decommissioned	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**TOTAL**
2-3"	34	18	88	13	60	91	16	29	351
4-5"	136	90	75	44	103	54	100	77	679
6-7"	80	48	35	72	65	37	74	65	475
8-9"	57	26	47	57	67	35	79	57	425
10-12"	64	19	45	83	66	36	79	58	452
>12"	50	25	46	39	41	13	25	17	255

	NGG				NGN	SGN		WWU	
Replacement Mains Installed	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**TOTAL**
</=75mm	93	29	82	18	91	61	38	49	461
>75-125mm	92	103	80	57	85	50	84	43	593
>125-180mm	58	27	44	59	62	30	67	58	404
>180-250mm	42	13	29	45	66	31	60	61	347
>250-355mm	47	15	41	77	59	15	36	50	339
>355mm	17	19	35	27	26	8	11	8	151

2003-04									
	NGG				NGN	SGN		WWU	
Mains Decommissioned	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	TOTAL
2-3"	54	7	143	23	92	82	40	46	486
4-5"	325	131	113	169	215	81	220	164	1,417
6-7"	82	49	33	54	48	44	79	51	439
8-9"	38	25	16	24	22	24	37	22	209
10-12"	25	21	23	17	15	13	34	14	162
>12"	30	16	20	6	23	6	13	11	125

	NGG				NGN	SGN		WWU	
Replacement Mains Installed	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	TOTAL
</=75mm	168	30	144	69	154	66	122	139	893
>75-125mm	199	131	91	101	149	67	160	76	973
>125-180mm	45	28	24	22	24	28	44	35	251
>180-250mm	14	11	10	12	11	12	18	9	97
>250-355mm	19	14	9	7	19	11	20	7	107
>355mm	7	7	12	3	7	3	4	5	48

2004-05									
	NGG				NGN	SGN		WWU	
Mains Decommissioned	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	TOTAL
2-3"	54	8	161	32	125	70	48	63	561
4-5"	334	119	149	150	218	92	247	176	1,484
6-7"	96	50	51	55	72	62	76	58	519
8-9"	45	19	20	28	24	23	34	22	215
10-12"	38	19	20	22	17	12	28	20	176
>12"	44	9	19	31	23	10	35	15	187

	NGG				NGN	SGN		WWU	
Replacement Mains Installed	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	TOTAL
</=75mm	230	18	161	100	181	81	139	180	1,091
>75-125mm	200	137	142	75	158	66	164	76	1,017
>125-180mm	50	24	39	28	36	33	47	35	290
>180-250mm	28	15	17	17	13	12	22	13	137
>250-355mm	32	9	15	20	13	9	9	17	122
>355mm	15	3	11	14	8	5	25	3	83

2005-06									
	NGG				NGN	SGN		WWU	
Mains Decommissioned	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	TOTAL
2-3"	48	4	164	116	109	84	31	64	619
4-5"	523	134	228	158	306	122	308	211	1,990
6-7"	87	52	39	33	59	55	79	70	474
8-9"	24	15	17	11	21	24	33	18	163
10-12"	17	11	14	10	11	13	23	14	112
>12"	28	6	25	13	18	12	53	16	170

	NGG				NGN	SGN		WWU	
Replacement Mains Installed	East of England	London	North West	West Midlands	Northern	Scotland	Southern	Wales & West	TOTAL
</=75mm	322	41	205	266	226	96	131	222	1,509
>75-125mm	290	122	192	72	191	108	226	84	1,284
>125-180mm	40	24	32	17	31	32	45	29	249
>180-250mm	13	7	10	8	9	10	22	13	92
>250-355mm	18	4	12	11	15	10	40	12	123
>355mm	4	3	9	0	4	6	11	0	38

2006-07

	NGG				NGN	SGN		WWU	
Mains decommissioned	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**TOTAL**
2-3"	58	8	149	52	91	89	34	71	552
4-5"	479	113	237	227	373	140	342	229	2,140
6-7"	123	51	44	56	65	55	92	68	554
8-9"	47	21	25	17	14	25	27	20	196
10-12"	32	15	26	10	12	13	25	18	151
>12"	28	12	50	41	6	8	40	5	190

	NGG				NGN	SGN		WWU	
Replacement mains installed	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**TOTAL**
</=75mm	249	22	210	206	265	125	188	254	1,519
>75-125mm	367	121	193	117	217	104	218	90	1,426
>125-180mm	79	49	41	20	24	32	59	26	329
>180-250mm	20	3	20	11	4	14	23	16	110
>250-355mm	26	6	33	17	4	12	30	4	133
>355mm	7	9	22	7	0	8	20	1	75

2007-08

	NGG				NGN	SGN		WWU	
Mains decommissioned	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**TOTAL**
2-3"	61	10	127	56	113	90	56	60	573
4-5"	410	137	222	177	370	135	415	238	2,105
6-7"	131	54	92	62	63	55	110	75	643
8-9"	56	22	31	34	14	22	40	23	241
10-12"	41	22	40	24	8	18	17	11	181
>12"	25	24	55	49	5	12	23	10	203

	NGG				NGN	SGN		WWU	
Replacement mains installed	**East of England**	**London**	**North West**	**West Midlands**	**Northern**	**Scotland**	**Southern**	**Wales & West**	**TOTAL**
</=75mm	250	28	171	174	295	151	266	258	1,593
>75-125mm	288	128	209	109	214	94	247	79	1,367
>125-180mm	97	50	71	41	24	33	53	29	397
>180-250mm	28	12	35	10	6	10	19	10	129
>250-355mm	23	21	44	36	5	13	17	7	165
>355mm	9	3	25	5	2	7	14	2	67

The following tables show the allowed lengths of mains to be decommissioned in 2007-08 (in kilometres) by each of the GDNs and the lengths of mains actually decommissioned in that year.

East of England		
Diameter	Allowed	Actual
</=3''	53	61
4-5''	485	410
6-7''	129	131
8-9''	47	56
10-12''	31	41
>12''	29	25
TOTAL	775	724

London		
Diameter	Allowed	Actual
</=3''	12	10
4-5''	111	137
6-7''	51	54
8-9''	21	22
10-12''	15	22
>12''	16	24
TOTAL	225	269

North West		
Diameter	Allowed	Actual
</=3''	147	127
4-5''	273	222
6-7''	44	92
8-9''	24	31
10-12''	26	40
>12''	48	55
TOTAL	561	567

West Midlands		
Diameter	Allowed	Actual
</=3''	142	56
4-5''	115	177
6-7''	30	62
8-9''	17	34
10-12''	13	24
>12''	51	49
TOTAL	367	403

Northern		
Diameter	Allowed	Actual
</=3''	105	113
4-5''	354	370
6-7''	71	63
8-9''	12	14
10-12''	17	8
>12''	14	5
TOTAL	574	573

Scotland		
Diameter	Allowed	Actual
</=3''	53	90
4-5''	148	135
6-7''	63	55
8-9''	21	22
10-12''	15	18
>12''	13	12
TOTAL	313	331

Southern		
Diameter	Allowed	Actual
</=3''	25	56
4-5''	434	415
6-7''	108	110
8-9''	31	40
10-12''	23	17
>12''	33	23
TOTAL	654	661

Wales and West		
Diameter	Allowed	Actual
</=3''	76	60
4-5''	230	238
6-7''	68	75
8-9''	15	23
10-12''	14	11
>12''	11	10
TOTAL	414	417

Appendix 2 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.[2]

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly[3].

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of consumers, present and future, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- The need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- The need to secure that all reasonable demands for electricity are met;
- The need to secure that licence holders are able to finance the activities which are the subject of obligations on them[4]; and
- The interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[5]

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

[2] entitled "Gas Supply" and "Electricity Supply" respectively.
[3] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.
[4] under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.
[5] The Authority may have regard to other descriptions of consumers.

- Promote efficiency and economy on the part of those licensed[6] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- Protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity;
- Contribute to the achievement of sustainable development; and
- Secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- The effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- The principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- Certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation[7] and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

[6] or persons authorised by exemptions to carry on any activity.
[7] Council Regulation (EC) 1/2003

Appendix 3 - Glossary

G

Gas Distribution Network (GDN)

GDNs transport gas from the NTS to final consumers. There are currently eight GDNs in Great Britain which comprise twelve LDZs

Gas Transporter (GT)

The holder of a Gas Transporter's licence in accordance with the provisions of the Gas Act 1986. The term covers the NTS, GDNs and IGTs.

H

Health and Safety Executive (HSE)

The Health and Safety Commission is responsible for health and safety regulation in Great Britain. The Health and Safety Executive and local government are the enforcing authorities who work in support of the Commission.

I

Independent Gas Transporter (IGT)

IGTs are GT licence holders that own and operate small local gas networks and levy distribution charges on shippers.

L

Local Distribution Zones (LDZs)

LDZs are low pressure pipe-line systems which deliver gas to final users and Independent Gas Transporters. There are twelve LDZs which take gas from the high pressure transmission system for onward distribution at lower pressures.

Local Transmission System (LTS)

The pipe-line system operating at >7bar that transports gas from NTS offtakes to distribution systems. Some large users may take their gas direct from the LTS.

N

National Grid Gas (NGG)

The GT licence holder for the North West, West Midlands, East England and London GDNs. NGG also holds the GT licence for the gas national transmission system (NTS). Prior to 10 October 2005, NGG was known as Transco.

National Transmission System (NTS)

National Grid's high pressure gas transmission system. It consists of more than 6,400 km of pipe carrying gas at pressures of up to 85 bar (85 times normal atmospheric pressure).

Northern Gas Networks (NGN)

The GT licence holder for Northern GDN.

S

Scotia Gas Networks (SGN)

The owner of two GT licence holders: Southern GDN and Scotland GDN.

W

Wales & West Utilities (WWU)

The GT licence holder for Wales & West GDN.

Appendix 4 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

- Does the report adequately reflect your views? If not, why not?
- Does the report offer a clear explanation as to why not all the views offered had been taken forward?
- Did the report offer a clear explanation and justification for the decision? If not, how could this information have been better presented?
- Do you have any comments about the overall tone and content of the report?
- Was the report easy to read and understand, could it have been better written?
- Please add any further comments?

1.2. Please send your comments to:

Andrew MacFaul
Consultation Co-ordinator
Ofgem
9 Millbank
London
SW1P 3GE
andrew.macfaul@ofgem.gov.uk