

**Gas Distribution Quality of Service
Regulatory Instructions and Guidance**

Version 3

March 2005

Table of contents

1. Introduction	3
PART A – OUTPUTS REPORTING FOR DISTRIBUTION NETWORKS	7
2. Number and duration of non-contractual Network supply interruptions	8
3. Customer satisfaction surveys.....	18
4. Distribution Network mains and service replacement	24
5. Distribution Network peak demand.....	28
6. Monitoring environmental performance.....	29
7. Supporting information.....	30
8. Reporting arrangements.....	32
PART B – OUTPUTS REPORTING FOR TRANSMISSION	34
9. Monitoring environmental performance – Transmission.....	35
10. Supporting information – Transmission	36
11. Reporting arrangements – Transmission	37
Appendix 1 Breakdown of the number and duration of Network non-contractual interruptions by cause	38
Appendix 2 Customer survey questionnaire.....	39
Appendix 3 Standard form letter for customer survey	43
Appendix 4 Standard format for reporting customer survey results.....	44

1. Introduction

Regulatory Instructions and Guidance

- 1.1 Version 3 of the Regulatory Instructions and Guidance (“RIGs”) amends the previous version in accordance with special conditions 36¹ and 35² of the gas transportation licence. These are the output reporting licence conditions for the Distribution Networks (“DNs”) and the National Transmission System (“the NTS”) respectively. These licence conditions are proposed to be superseded by standard special condition D9 and special condition C16 later this year as part of the DN sales formal consultation under section 8AA and section 23 of the Gas Act³ which is due to close on 15 April 2005. If, following consideration of consultation responses it is decided to introduce these conditions it is currently anticipated that these would be introduced in May 2005. Notwithstanding this, the new and amended requirements of the RIGs will be effective from 1 April 2005.
- 1.2 As such, Transco and the independent DNs will need to put in place arrangements to ensure that they are in a position to comply with the RIGs and relevant licence conditions once share sale is completed.
- 1.3 The initial draft version of the RIGs was published in November 2001. Ofgem has subsequently updated the RIGs twice, with revised versions published in February 2002 effective from 1 April 2002 and in February 2004 effective from 1 April 2004. This version is effective from 1 April 2005.

Amendments to the RIGs

- 1.4 This version of the RIGs contains amendments to the reporting requirements in light of changes to the outputs reporting licence conditions. Going forward, special condition D9 will require each relevant gas transporter (i.e. Transco as operator of the retained DNs and the independent DNs) to conduct two separate quarterly surveys to assess satisfaction with the quality of service customers have

¹ LDZ incentive scheme and performance reporting

² NTS performance reporting

³ Ofgem published the statutory consultation on amending the gas transportation licence earlier this month (see Ofgem publication 45/05 ‘National Grid Transco – Potential Sale of Gas Distribution Network Businesses. Formal Consultaiton under section 23 and section 8AA of the Gas Act 1986’)

received following planned and unplanned interruptions to gas supplies from 1 April 2005. These surveys cover performance in three key areas – (i) communication, (ii) the inconvenience caused by the interruption and the professionalism and efficiency with the work carried out in restoring supply.

- 1.5 The RIGs set out the detail of the customer survey questions as well specifying how the sample for the survey should be selected and how the results should be collated and reported to Ofgem.
- 1.6 The RIGs have also been amended in respect of non-contractual interruptions reporting. These amendments have been made following an initial assessment of Transco's 2003/04 interruptions data, undertaken during summer 2004 by an independent consultant. The amendments take into account recommendations from Ofgem's consultant and should enable the relevant gas transporters to report more accurately on the number and duration of interruptions, therefore making the results more meaningful.
- 1.7 The structural and licensing changes in the gas transportation industry have consequential effects on the way outputs are reported, not least that the RIGs will apply to more than one DN owner and the NTS separately going forward. The RIGs has now been separated into two parts to support this – into parts A and B. Part A sets out definitions, instructions and guidance for DNs and Part B sets out the definitions, instructions and guidance for the NTS. Further, the RIGs no longer require DNs to report performance in respect of the resolution of shipper queries or the reliability of the M-number CD-ROM service.
- 1.8 In addition to these more substantive amendments, Ofgem has also made a number of stylistic changes to the RIGs to improve their presentation throughout.

RIGs reporting for DNs

- 1.9 The RIGs include definitions and related instructions and guidance for collating 'specified information' that is set out in the DN output reporting licence condition. Specified information includes:
 - ◆ the number and duration of non-contractual interruptions to supply;

- ◆ the kilometres of mains decommissioned and replacement mains installed per year;
- ◆ the number of services decommissioned and transferred and replacement services installed per year;
- ◆ Distribution Network peak demand;
- ◆ data on the environmental performance of DNs and accompanying narrative; and
- ◆ supporting information

1.10 When it comes into effect, standard special condition D9 will add to the definition of specified information the results of customer satisfaction surveys undertaken to assess quality of customer service following a non-contractual interruption to supply after 1 April 2005.

RIGs reporting for the NTS

1.11 The RIGs include definitions and related instructions and guidance for collating 'specified information' that is set out in the NTS output reporting licence condition. Specified information in this regard is data on the environmental performance of the NTS and accompanying narrative and supporting information.

RIGs definitions

1.12 The RIGs includes definitions and related guidance for collating the specified information. For the avoidance of doubt this RIGs document is subordinate to the licence conditions. Consequently, the RIGs will not change any definitions or obligations contained within the gas transportation licence (or its successor documents) and in the event of any dispute the licence conditions will always take precedence.

Structure of this document

1.13 The RIGs is structured as follows. Part A of the RIGs provides definitions, instructions and guidance for:

- ◆ collating information on the number and duration of non-contractual Network supply interruptions –Section 2;
- ◆ undertaking customer satisfaction surveys and reporting the results to Ofgem – Section 3
- ◆ Network mains and service replacement - Section 4;
- ◆ Distribution Network peak demand – Section 5;
- ◆ environmental performance – Section 6;
- ◆ supporting information – Section 7; and
- ◆ reporting arrangements for DNs – Section 8

1.14 Part B of the RIGs provides definitions, instructions and guidance for:

- ◆ environmental performance of the NTS – Section 9;
- ◆ supporting information – Section 10; and
- ◆ reporting arrangements for the NTS – Section 11

1.15 The RIGs also contains the following appendices:

- ◆ a tree-diagram illustrating the breakdown of interruptions by cause for DNs – Appendix 1;
- ◆ the customer survey questionnaire for DNs – Appendix 2;
- ◆ the customer survey covering letter – Appendix 3; and
- ◆ the standard format for reporting customer survey results – Appendix 4;

PART A – OUTPUTS REPORTING FOR DISTRIBUTION NETWORKS

2. Number and duration of non-contractual Network supply interruptions

Introduction

- 2.1 This section sets out definitions and related instructions and guidance for reporting:
- ◆ the number of customers interrupted by non-contractual Network supply interruptions; and
 - ◆ the duration of interruptions from non-contractual Network supply interruptions

Information sources

- 2.2 Each DN is required to record data on interruptions using the amended definitions from 1 April 2005 and is required to develop appropriate systems and processes to accurately record this information at an overall and at a disaggregated level.
- 2.3 Where appropriate, Transco and the independent DNs will need to put in place arrangements to ensure that they are in a position to comply with the RIGs once share sale is complete.

Definitions of interruptions output measures

The number of non-contractual supply interruptions per year

- 2.4 The number of non-contractual supply interruptions per year is measured by the number of non-contractual supply interruptions to Network customers from all planned and unplanned sources per 10,000 customers per year. It is calculated as:

$$\frac{\text{The total number of customer interruptions per year} * 10,000}{\text{The total number of Network customers}}$$

The duration of non-contractual supply interruptions per year

- 2.5 The duration of non-contractual supply interruptions per year is measured by the average number of customer hours lost per interruption resulting from non-contractual supply interruptions to Network customers. This is calculated as:

$$\frac{\text{The total number of customer hours lost per year}}{\text{The total number of customer interruptions per year}}$$

Other definitions

Distribution Network

- 2.6 Distribution Network means the relevant gas distribution network defined with reference to its constituent Local Distribution Zones, as defined in Special Condition E2A ('Revenue Restriction definitions in respect of the Distribution Network') of the DN operator licence.

Network customer

- 2.7 A Network customer is defined as any premises or independent network supplied from a DN. Network customers should be identified from their unique Meter Point Reference Number (MPRN) or connected system exit point (CSEP) location. The method adopted by DNs to identify Network customers from MPRNs or CSEPs shall be agreed in advance with Ofgem.

Total number of Network customers

- 2.8 The total number of Network customers is derived by the following equation:

$$\frac{\text{The number of Network customers at the start of the reporting year} + \text{the number of Network customers at the end of the reporting year}}{2}$$

2

Domestic customer

- 2.9 A domestic customer is defined as any premises supplied by a DN where gas is taken off wholly or mainly for domestic purposes.

Non domestic customer

- 2.10 A non-domestic customer is defined as any premises supplied by a DN where gas is taken off wholly or mainly for non-domestic purposes.

Priority customer

- 2.11 A priority customer is defined as any premises supplied by a DN where gas is taken off wholly or mainly for domestic purposes and where the occupier:
- ◆ is a disabled or chronically sick person or is of pensionable age;
 - ◆ does not share the occupancy of the premises with any person who is not a disabled or chronically sick person, not of pensionable age and not a minor; and
 - ◆ is included in the information provided to a DN by the relevant suppliers in pursuance of Standard Condition 37 (3)(d) of the Gas Suppliers' Licence

- 2.12 Suppliers are required to supply information to DNs to enable meter point information to be tagged against the above definition. Interruptions will be reported based on the tagging information available at the start of the interruption.

CSEP customer

- 2.13 A CSEP customer is defined as any independent gas transporter that is not a DN but supplied from a DN's Network. These customers should be identified from the CSEP location.
- 2.14 Each CSEP interrupted counts as one customer regardless of the number of end users connected to the CSEP. Interruptions to CSEP customers due to faults on

an independent gas transporter's networks will not be included in the count of interruptions.

Meter Point Reference Number

- 2.15 The Meter Point Reference Number ("MPRN") is the unique number for identifying a particular metering point.

Non-contractual interruptions

- 2.16 A non-contractual interruption is defined as a loss of gas supply upstream of, or at, the emergency control valve ("ECV") to a Network customer. This includes planned and unplanned non-contractual interruptions. Contractual interruptions and interruptions not caused by any of the activities set out in Tables 2.1 and 2.2 are excluded. A breakdown of non-contractual interruptions by cause is illustrated in Appendix 1.

Planned non-contractual interruptions

- 2.17 Planned non-contractual interruptions are defined as non-contractual interruptions resulting from planned activities. This includes all non-contractual interruptions resulting from the planned activities shown in Table 2.1 below.

Table 2.1: Non-contractual interruptions resulting from planned activities

Activity	Definition	Example	Required notice
Customer/shipper initiated service alterations	Any change to a service pipe or associated DN plant at the request of a customer or shipper.	Alteration to route or size of service pipe for a housing extension.	By appointment
Customer initiated mains diversions	Diversion of pipelines and mains at the request of a Local Authority, highway authorities, developer, agent of a developer, landowner, or any other agency.	A new development will encroach on the location of the pipeline or main and will be diverted for safety reasons.	By appointment
DN initiated	Bulk service replacement, mains replacement driven service transfers or replacement or any other DN initiated operation in association with planned programmes of work. A relay and subsequent transfer will count as two non-contractual interruptions.	Safety and asset maintenance related replacement.	5 working days for customers due to be interrupted.

Unplanned non-contractual interruptions

- 2.18 Unplanned non-contractual interruptions are defined as non-contractual interruptions resulting from unplanned activities. This includes all non-contractual interruptions resulting from the unplanned activities shown in Table 2.2 below.
- 2.19 All unplanned interruptions upstream of, or at, the ECV should be attributed to one of the categories in Table 2.2.

Table 2.2: Non-contractual interruptions resulting from unplanned activities

Activity	Definition	Examples
Inadequate Network Capacity	An occurrence of insufficient system capability to provide the required quantity of gas to a supply point or CSEP as a result of the design of the network. This includes failure to construct adequate network capability in accordance with Standard Special Condition A9 of the DN operator licence.	Additional capacity not planned and/ or completed in time. System pressures not increased sufficiently.
1 in 20 conditions exceeded	An occurrence of insufficient system capability to provide the required quantity of gas to a supply point or CSEP as a result of 1 in 20 conditions being exceeded.	Severe weather conditions greater than 1 in 20
Leaking services	Interruptions of supply arising from repair or replacement due to corrosion, deterioration or joint failure resulting in leakage from service pipes and / or associated plant. This excludes causes resulting from 3 rd party action.	Temporary disconnection due to metal service corroding resulting in leaking gas.
Mechanical Pipe / Plant Failure	Interruptions of supply arising from repair or replacement due to mechanical pipe /plant failure. This includes failures of mains, pipelines, and pressure control systems. This excludes causes resulting from 3 rd party action.	Component failure Governor/PRS failure Pipe fracture
Non-mechanical Pipe / Plant Failure	An occurrence of insufficient system capability to provide the required quantity of gas to a supply point and /or CSEPs as a result of non-mechanical plant/pipe failure. This includes errors and operational procedures and inadequate asset records. This excludes causes resulting from 3 rd party action.	Maintenance procedures not followed.
NTS (upstream) failure	An occurrence of insufficient system capability to provide the required quantity of gas to a supply point and /or CSEP as a result of (upstream) failures of NTS pipelines, pressure control systems, operational procedures and non-availability of beach gas irrespective of cause.	Gas not available at Network boundary point.
Third Party action	An occurrence of isolation of a supply point resulting from third party action which reduces the capability of: <ul style="list-style-type: none"> - A DN's pipeline, mains and associated control equipment - A DN's service pipes and associated control equipment Additionally it includes interruptions necessitated by release of gases from plant and pipe-work not owned by a DN, and as necessitated by requests from other authorities.	Contractor cutting through a DN's pipeline or main. A customer piercing a service pipe while gardening. Fire or Police service request to cease gas supplies.
Other upstream events	Any other interruptions to supply arising at or upstream of the ECV.	Police requests for supply to be disconnected.

Interruption duration

- 2.20 The duration of an interruption is defined as the time difference between the initial interruption of a customer's gas supply as a result of a non-contractual interruption to when the interruption ends.
- 2.21 DNs should record this information for both planned and unplanned non-contractual interruptions to the nearest hour. Interruptions of less than one hour should be reported as one hour.

Interruption start

- 2.22 The interruption start time is the earlier of the date and time at which:
- ◆ the ECV is closed by the DN's personnel (or in some emergency situations the customer);
 - ◆ plant is isolated by the DN's personnel; or
 - ◆ the time and date initially logged by the call centre following calls received to the Emergency Services number in respect of multiple losses of supply arising from a single cause

Interruption end

- 2.23 The interruption end is date and time at which:
- ◆ gas is made available to the ECV by the DN's personnel; or
 - ◆ there are considerations outside of the DNs control (in the absence of which the gas supply could be restored to the ECV) which prevent the restoration of supply.
- 2.24 In instances where there are considerations outside of the DNs control, the DN's personnel should record the reasons why supply could not be restored to the ECV.

Major incidents

- 2.25 A major incident is defined as any unplanned activity on a DN that results in a non-contractual supply interruption to 250 or more Network customers.

Instructions and guidance

Domestic customers

- 2.26 Designation to this category will be based on information supplied to DNs by shippers based on the tagging of supply points against the definition.

Non-domestic customers

- 2.27 Designation to this category will be based on information supplied to DNs by shippers based on the tagging of supply points against the definition.

Interruption duration

- 2.28 DNs are required to report interruption duration only. However, it is important to specify how DNs should measure the duration by referencing start and end times of the interruption.
- 2.29 DNs personnel must use best endeavours to report the interruption duration as accurately as possible using information on when the interruption started from:
- ◆ the on-site Emergency Service Engineer who has made the gas supply safe following an emergency call out;
 - ◆ the call centre direct; or
 - ◆ the customer's own estimate
- 2.30 Where the DN's personnel receives different information on start times from these sources, they should use the most reliable start time provided.
- 2.31 Where the interruption spans two reporting periods, it will be allocated to the period in which the interruption started.

2.32 Due to the requirement to report information within one month of a period end it may be necessary for DNs to re-report a period although it is not expected that this will have a material impact on the number or duration reported.

Disaggregated reporting of the number and duration of non-contractual interruptions

2.33 Each DN is required to report information on the number and duration of non-contractual interruptions to supply at an overall and disaggregated level.

2.34 DNs must report the total number and duration of non-contractual interruptions and at the following levels of disaggregation:

- ◆ the number and duration of non-contractual interruptions for
 - domestic customers;
 - non-domestic customers;
 - priority customers; and
 - CSEP customers
- ◆ the number and duration of planned non-contractual interruptions in total and by the following classifications:
 - customer/shipper initiated service alterations;
 - customer initiated mains diversions; and
 - DN initiated
- ◆ the number and duration of unplanned non-contractual interruptions in total and by the following classifications:
 - inadequate network capacity;
 - 1 in 20 conditions exceeded;
 - leaking services;

- mechanical pipe/plant failure;
- non-mechanical pipe/plant failure;
- NTS upstream failure; and
- third party action

2.35 The number and duration of non-contractual interruptions related to each major incident shall be separately reported based upon the local recording processes. The cause of the incident shall also be reported.

2.36 Unplanned interruptions resulting from the activity “other upstream events” will be reported as a major incident, with cause, if 250 or more Network supply points are interrupted.

2.37 Ofgem will continue to review the materiality of these events and determine whether additional reporting is required in due course.

3. Customer satisfaction surveys

Introduction

- 3.1 Each DN is required to appoint an independent third party, such as a market research company, to undertake regular postal customer satisfaction surveys. These surveys will assess customer satisfaction in relation to work carried out by DNs on customers' service pipes where either the work has caused a non-contractual interruption to the customer's gas supply (i.e. a planned interruption) or where the work has been associated with an unplanned interruption.
- 3.2 This section sets out definitions and related guidance for:
- ◆ undertaking the customer satisfaction surveys;
 - ◆ the format of the surveys;
 - ◆ the frequency with which the surveys should be carried out; and
 - ◆ how the results of the surveys should be calculated and reported to Ofgem.

Undertaking the surveys

- 3.3 DNs are required to appoint independent third parties to carry out quarterly customer satisfaction surveys on a sample of customers who are likely to have experienced non-contractual interruptions to supply. Separate surveys must be conducted for:
- ◆ planned non-contractual interruptions; and
 - ◆ unplanned non-contractual interruptions
- 3.4 To undertake these surveys, DNs will need to obtain information on customers that have been affected by these types of interruptions. This information should be extracted from asset records as appropriate.
- 3.5 DNs (or their appointed third party) must not use financial or non-financial incentives to encourage customers to return completed surveys.

Provision of data to independent third party

- 3.6 Only details of those customers who are likely to have experienced a non-contractual interruption to their gas supply from 1 April 2005 should be included in the information provided to the independent third party.
- 3.7 For each quarter, DNs should provide all relevant details of those customers that have experienced a non-contractual interruption to supply since the beginning of that quarter for which records are available – as well as any customers that experienced a non-contractual interruption in previous quarters but whose details were not presented for sampling in that quarter – to the independent third party. DNs may exclude certain customers for the reasons set out below.
- 3.8 This information should be provided to the DNs' independent third party at the end of each quarter for the preceding quarter.

Sample size

- 3.9 The number of surveys sent out should be sufficient in number such that at least 100 are completed and returned for each type of survey in each quarter. In any case, at least 400 surveys should be completed and returned for each type of survey in each formula year.
- 3.10 If more than 100 surveys are returned for either survey in any quarter, the results should be calculated from all of the completed surveys.

Sample selection

- 3.11 The appointed independent third party is required to select the sample randomly from the information provided by the DN:
- ◆ ensuring a sufficiently sized sample is extracted from the total population provided to ensure that at least 100 completed surveys are returned for each type of survey in each quarter; and
 - ◆ excluding customers that have been sent the same postal survey (i.e. under the requirements of the licence condition) in the previous 12 months.

3.12 DNs and their appointed independent third party will make reasonable endeavours to ensure that the number of returned surveys is broadly consistent in each quarter, subject to meeting the minimum requirements.

Exclusions

3.13 In certain cases, it may be appropriate for a DN to exclude certain customers from partaking in the survey, and therefore not provide the necessary information to its third party for sampling.

3.14 For example, it may be appropriate for a DN to exclude a customer that has experienced, or is living within the vicinity of other customers that have experienced, a gas emergency situation (such as an explosion or incidents involving carbon monoxide).

3.15 Each DN should provide to Ofgem a list of those customers that have been excluded from the data sent to the third party for sampling and the reasons for the exclusion when the results are submitted.

3.16 DNs must satisfy themselves that in undertaking these customer surveys they comply with the relevant data protection and other information legislation, such as the Data Protection Act.

Format of questionnaire

3.17 Each DN is required to ask the same questions to customers that have experienced the same type of interruptions. Although the number of questions differs dependent on type of interruption, both cover the following broad areas of customer service:

- ◆ the DN's communication with customers;
- ◆ the inconvenience caused to the customer by the interruption to their gas supply; and
- ◆ the professionalism and efficiency the DN employed in carrying out the works necessary to restore supply.

- 3.18 Each DN (and its third party) is required to use the standard template for each survey, set out in Appendix 2 to this document. DNs must also use the standard covering letter for the surveys set out in Appendix 3.
- 3.19 Each DN (and its third party) may only change the standard template and standard covering letter in the specified areas (i.e. those areas in square brackets).

Survey frequency

- 3.20 Each DN is required to undertake both surveys simultaneously on a quarterly basis from 1 April 2005. Given the retrospective nature of customer surveys, surveys for the first quarter should be undertaken once that quarter is complete and on a three month lagged basis thereafter.
- 3.21 Table 3.1 sets out the timetable when DNs should start the customer survey process for the previous quarter:

Table 3.1: Survey process timetable

Date	Requirement
1 July	Survey process begins for quarter 1 (Q1)
1 October	Survey process begins for Q2
1 January	Survey process begins for Q3
1 April	Survey process begins for Q4

Note: These dates signify when DNs should begin the process of surveying customers for the previous quarter. They do not necessarily specify when DNs should be sending surveys to customers.

Survey results

- 3.22 This section sets out how DNs should calculate the results from the returned customer surveys as well as how these should be reported to Ofgem.
- 3.23 The survey has a number of screening questions and questions that ask customers to score the DNs performance. For the purpose of the RIGs, those questions which ask the customer to score the DN's performance are termed 'relevant questions'.

Calculating results

- 3.24 The customer satisfaction survey results for the relevant questions should be scored on the following basis:

where 5 = very satisfied; 4 = satisfied; 3 = neither satisfied nor dissatisfied; 2 = dissatisfied; and 1 = very dissatisfied.

- 3.25 Each DN's third party should calculate the mean score for each relevant question in the customer surveys on both a quarterly and an annual basis. For the purpose of these surveys, the mean score is the sum of the valid ratings for each question, where a valid rating is any rating scored 1-5 by customers, divided by the number of responses to that question. Each respondent's score to each relevant question should be equally weighted. The mean score is therefore the straight line average of the valid ratings given for each question.⁴
- 3.26 In addition to providing the mean score, each DN's third party should also calculate the upper and lower 95 per cent confidence intervals around the mean⁵.

Combined scores

- 3.27 Further, each DN's third party should calculate the combined mean score for the relevant questions in each survey, including the upper and lower 95 per cent confidence intervals. The method for calculating the combined mean results and the upper and lower 95 per cent confidence intervals for the combined mean shall be agreed in advance with Ofgem.

Reporting results

- 3.28 Each DN is required to report the results of both quarterly surveys to Ofgem three months after the end of each quarter. In addition, DNs are required to report cumulative annual results to Ofgem one month after the final quarter's date is reported in each regulatory year.

⁴ In a simple example, if two respondents are asked to answer a question and gave valid ratings of 4 and 5 respectively, the mean score would be 4.5

⁵ The confidence interval is a range within which there is a 95% chance that the true value for the population as a whole falls. It is calculated as follows:

$$\text{Mean result of the sample} \pm SE (\text{standard error}) * 1.96$$

- 3.29 Ofgem intends to publish quarterly and annual results on its website.
- 3.30 Each DN is also required to publish its own quarterly and annual results on its website within one month of the results being provided to Ofgem.
- 3.31 Table 3.3 sets out the dates when DNs should provide these results from the year commencing 1 April 2005.

Table 3.3: Reporting timetable for survey results

Date	Information reported to Ofgem
30 September	Q1 results for the surveys
31 December	Q2 results for the survey
31 March	Q3 results for the survey
30 June	Q4 results for the survey
31 July	Combined annual survey results for each survey

Format of results

- 3.32 Each DN is required to report the results of the surveys to Ofgem in the standard format as set out in Appendix 4.

4. Distribution Network mains and service replacement

Introduction

- 4.1 In September 2001, following a review of Transco's mains replacement activity, the Health and Safety Executive (HSE) concluded that Transco should be required to implement a mains replacement programme from 2002 such that all iron mains within 30 metres of property should be replaced within thirty years. Transco proposed, and the HSE accepted, an initial programme for the first five years to 2007. Further details are included in chapter 4 of the price control final proposals document.
- 4.2 The relevant licence condition requires DNs to report performance on the mains and service replacement programme. DN's performance will be monitored and any data will be shared with the HSE.

Definitions

- 4.3 The key definitions for reporting on DN mains and service replacement are set out below. All definitions refer to systems operating at low, medium and intermediate pressures, which include those at 7 bar gauge.

The number of kilometres of mains decommissioned per year

- 4.4 This is defined as the number of kilometres of mains per year of included materials permanently decommissioned

The number of kilometres of replacement mains installed per year

- 4.5 This is defined as the number of kilometres of mains of excluded materials installed as replacement for mains to be decommissioned per year.

The number of services decommissioned per year

- 4.6 This is defined as the number of service pipes permanently decommissioned per year and not replaced.

The number of replacement services installed per year

- 4.7 This is defined as the number of service pipes installed as replacement for services to be decommissioned.

The number of services transferred per year

- 4.8 This is defined as the number of service pipes permanently transferred to another main per year to facilitate the decommissioning of mains.

Other definitions

Services

- 4.9 Services are pipes for distributing gas to premises from a main, being any pipe between the main and the outlet of the first emergency control valve downstream of the main.

Mains

- 4.10 Mains are the network of pipes which transport gas from the bulk supply transmission system to the service. They are not used for the purpose of carrying gas in bulk.

Instructions and Guidance

Replacement Mains

- 4.11 Replacement mains laid and decommissioned mains will be reported in the format in Table 4.1 below for both the DNs in aggregate and by DN.

Table 4.1 Diameter bands for mains replacement

Mains Decommissioned (Internal Diameter)	Mains Decommissioned (km)	Replacement Mains Installed (External Diameter mm)	Replacement Mains Installed (km)
2-3"		</= 75mm	
4-5"		> 75-125mm	
6-7"		> 125-180mm	
8-9"		> 180-250mm	
10-12"		> 250-355mm	
> 12"		> 355	

- 4.12 For mains decommissioned, imperial sizes have been selected to reflect the target population for replacement. Metric sizes should be reported as the nearest imperial equivalent. The sizes of replacement mains installed refer to the current convention for polyethylene pipes (i.e. based on external diameter). Other pipe materials should be reported as the nearest equivalent (based on internal diameter where appropriate).

Included Pipe materials

- 4.13 Mains of all materials decommissioned in the low, medium and intermediate pressure tiers with the exception of polyethylene and cathodically protected steel.
- 4.14 Excluded materials. Polyethylene and cathodically protected steel mains.

Reason for decommissioning

- 4.15 All decommissioning of mains of included materials is to be reported with the exception of re-chargeable diversions. Re-chargeable diversions are reported separately as part of the supporting information (see Section 7).

Calculation of Decommissioned Lengths

- 4.16 The lengths decommissioned by diameter band will be derived from the change in each DN's asset population at the end of each reporting year, corrected as necessary to accurately reflect mains actually decommissioned.

Replacement Services

- 4.17 Each DN is required to report all information on replacement services and services transferred.
- 4.18 The number of replacement services installed must also be disaggregated by type of customer and cause as follows:
- ◆ the total number of replacement non-domestic services installed per year;
 - ◆ the total number of replacement domestic services installed per year;

- ◆ the number of replacement domestic services installed in association with mains replacement per year;
- ◆ the number of replacement domestic services installed as a result of leakage per year; and
- ◆ the number of replacement domestic services installed for reason of condition (where no associated mains replacement takes place) excluding leakage per year.

Included Pipe materials

4.19 All material types are included.

Audit Arrangements

4.20 The lengths of mains and numbers of services reported may be subject to annual audit.

5. Distribution Network peak demand

Introduction

- 5.1 Transco currently report its estimated 1 in 20 peak demand for each supply year and the forecast 1 in 20 peak demand for the next 10 supply years as part of its Ten Year Statement (a supply year lasts from 1 October to 30 September of the following year).
- 5.2 DNs should report peak demand on a formula year basis consistent with other output information required under these RIGs.

Definition

1 in 20 peak demand – the level of demand that, in a long series of winters, with connected load held at the levels appropriate for the winter in question, would be likely to be exceeded in one out of 20 winters, with each winter counted only once. A more detailed definition is set out in paragraph 2 of Standard Condition 16 of the gas transporters' licences

Connected load – the sum of demand for gas from all types of gas customers other than those covered by DN's interruptible transportation contracts.

Instructions and guidance

- 5.3 At the end of the reporting year DNs must submit the estimated 1 in 20 peak LDZ demand for that year and the forecast peak LDZ demand for the next ten reporting years. Each DN must also provide confirmation that it has made sufficient capacity available to meet 1 in 20 demand in the reporting year.
- 5.4 DNs must explain the variance in forecasts for particular reporting years.

6. Monitoring environmental performance

Introduction

- 6.1 Each DN should provide an annual environmental report covering the outputs set out in Table 6.1. The report should include information on a number of pre-specified environmental performance measures and accompanying narrative.

Environmental measures

- 6.2 The environmental measures required are:

Table 6.1 Environmental measures

Measure	Definition	Applicable asset group(s)	Reporting Detail
Methane emissions	Methane emitted from pipe networks due to leakage	Distribution Network asset group (MP and LP pressure tiers)	Disaggregate by Distribution Network asset group, estimated tonnes of methane per annum
Loss of containment	Number of incidents involving release of gas that are subject to reporting under COMAH.	Network storage	Number reported and total gas lost in tonnes.

Instructions and Guidance

- 6.3 The environmental report will take into account guidance from the Government, the Environment Agency and other relevant bodies. It will explain levels of carbon dioxide, oxides of nitrogen and methane emissions and (where appropriate) performance against any other relevant environmental targets.

7. Supporting information

Introduction

- 7.1 This section sets out definitions and related instructions and guidance for reporting supporting measures for DNs. These measures are required to facilitate the development of an expenditure monitoring framework or are associated with the distribution price control formula and are supplemental to the customer focused outputs and environmental performance reporting discussed in previous sections.

Definitions

- 7.2 The definitions of the supporting measures for the DNs are set out in Table 7.1.

Table 7.1: DN supporting measures

Supporting measure	Definition	Reporting Detail
New Connections	Number of new connections completed in the reporting year.	Total and disaggregated by the following categories of connection: <ul style="list-style-type: none"> • Existing housing • New Housing • I&C • Independent connections; such as to other GTs or UIP connections <p>The number of statutory and non-statutory connections shall also be provided by each Network</p>
Diversions	Number or length of re-chargeable diversion schemes completed in the reporting year	LTS: Number per Network Below 7bar: Length per Network.
Accuracy of 1 and 3 year ahead peak and annual demand forecasts	% error in 1 and 3-year ahead forecasts of annual demand and 1 in 20 peak demand.	Network demand (Refer to relevant forecast figures in each DN's Ten Year Statement.)

Annual demand	The total volume of gas offtaken from each DN in the reporting year.	Total and disaggregated by DN and by the following categories of load: <ul style="list-style-type: none"> • Firm load < 5860 MWh p.a. • Firm load > 5860 MWh p.a. and < 1,465,355 MWh p.a • Interruptible < 1,465,355 MWh p.a. • Firm and interruptible load > 1,465,355 MWh p.a.
Publicly reported escapes	<p>Number of internal reports</p> <p>Number of external reports and number of cases where no escape is found</p> <p>Histogram showing the annual numbers of uncontrolled and controlled escapes attended by time-band, together with the mean.</p> <p>Histogram showing the annual number of escape-related repairs deferred beyond 28 days, by time-band, together with the median repair time</p>	<p>Total per DN and disaggregated by pressure tier.</p> <p>Total per DN</p> <p>Total per DN</p> <p>Total per DN</p> <p>Date of oldest outstanding repair</p>
Gas in Buildings	Gas in Buildings associated with cast/spun iron mains fractures or ductile iron corrosion failures consistent with the latest DN Engineering Instructions and reports made to the HSE.	Total and disaggregated by pressure tier and material.
Cast/spun iron fractures and ductile iron corrosion failures	Number of instances of leakage being identified as a result of cast/spun iron mains fractures and ductile iron corrosion failures.	Total and disaggregated by pressure tier and material. Normalise to instances per 1000 km of main.

Instructions and guidance

7.3 DNs must provide explanatory narrative for trends in each of the measures listed above.

8. Reporting arrangements

Introduction

- 8.1 This section sets out the reporting arrangements to apply in each reporting year in relation to interruptions information, the environmental report and supporting information. The reporting arrangements for the customer surveys are set out in Section 3.
- 8.2 The normal reporting year for the provision of output information required under the relevant licence conditions is from 1 April of the relevant year to 31 March of the following year.
- 8.3 DNs are required to report the information required under the licence condition by 31 July in each relevant year.
- 8.4 Given the changes to industry structure, during the relevant year beginning 1 April 2005, DNs will be required to report information on the number and duration of non-contractual interruptions biannually. The first two quarters data should be reported by 30 November 2005 with the second two quarters by 30 May 2006. The annual submission is due by 31 July 2006. Thereafter DNs should report this output on an annual basis by 31 July in each relevant year.
- 8.5 Table 8.1 sets out reporting requirements for the outputs required under the relevant licence conditions.

Table 8.1: Key dates for submission of outputs information

Date	Information
30 November 2005	Q1 and Q2 interruptions data submitted to Ofgem for 2005/06
30 May 2006	Q3 and Q4 interruptions data submitted to Ofgem for 2005/06
31 July 2006	2005/06 annual outputs report submitted to Ofgem
31 July 2007	2006/07 annual outputs report submitted to Ofgem
31 July 2008	2007/08 annual outputs report submitted to Ofgem

Auditing interruptions data and accuracy of information

- 8.6 Ofgem may undertake annual audits of the information reported under the relevant licence condition. Where it does so, it would expect its auditors to

undertake a review of each DN's systems for recording and reporting the information as well as an audit of the data.

8.7 The auditors may be asked to recommend accuracy targets for this data in future years. Minimum levels of accuracy may be set for, but not limited to, the reporting of:

- ◆ the number of non-contractual supply interruptions – at both the overall level and disaggregated by cause and customer type; and
- ◆ the duration non-contractual supply interruptions – at both the overall level and disaggregated by cause and customer type

PART B – OUTPUTS REPORTING FOR TRANSMISSION

9. Monitoring environmental performance – Transmission

- 9.1 The price control final proposals set out that Transco would be required to submit an annual environmental report for the NTS. The report should include information on a number of pre-specified environmental performance measures and accompanying narrative.

Environmental measures

- 9.2 The environmental measures for the NTS are set out in Table 9.1 below.

Table 9.1 Environmental measures

Measure	Definition	Reporting Detail
Methane emissions	Methane emitted from plant.	Estimated Kg of methane emitted per annum, normalised by energy delivered – Kg methane per GWh
CO ₂ emissions	Carbon dioxide emitted by gas-powered compressors.	Normalise by energy delivered – estimated Kg of CO ₂ per GWh.
NO _x emissions	NO _x emitted by gas-powered compressors.	Normalise by unit of annual throughput.

Instructions and Guidance

- 9.3 The environmental report will take into account guidance from the Government, the Environment Agency and other relevant bodies. It will explain levels of carbon dioxide, oxides of nitrogen and methane emissions (where appropriate) for the NTS and performance against any other relevant environmental targets.

10. Supporting information – Transmission

Introduction

- 10.1 This section sets out definitions and related instructions and guidance for reporting supporting measures for the NTS. These measures are required to facilitate the development of an expenditure monitoring framework or are associated with the distribution price control formula and are supplemental to the customer focused outputs and environmental performance reporting discussed in previous sections.

Definitions

- 10.2 The definitions of the supporting measures for the NTS are set out in Table 10.1.

Table 10.1: General supporting measures

Supporting measure	Definition	Reporting Detail
New Connections	Number of new connections completed in the reporting year.	Total
Diversions	Number of re-chargeable diversion schemes completed in the reporting year	Total
Accuracy of 1 and 3 year ahead peak and annual demand forecasts	% error in 1 and 3-year ahead forecasts of annual demand and 1 in 20 peak demand.	NTS demand (refer to relevant forecast figures in Transco's Ten Year Statement.)

Instructions and guidance

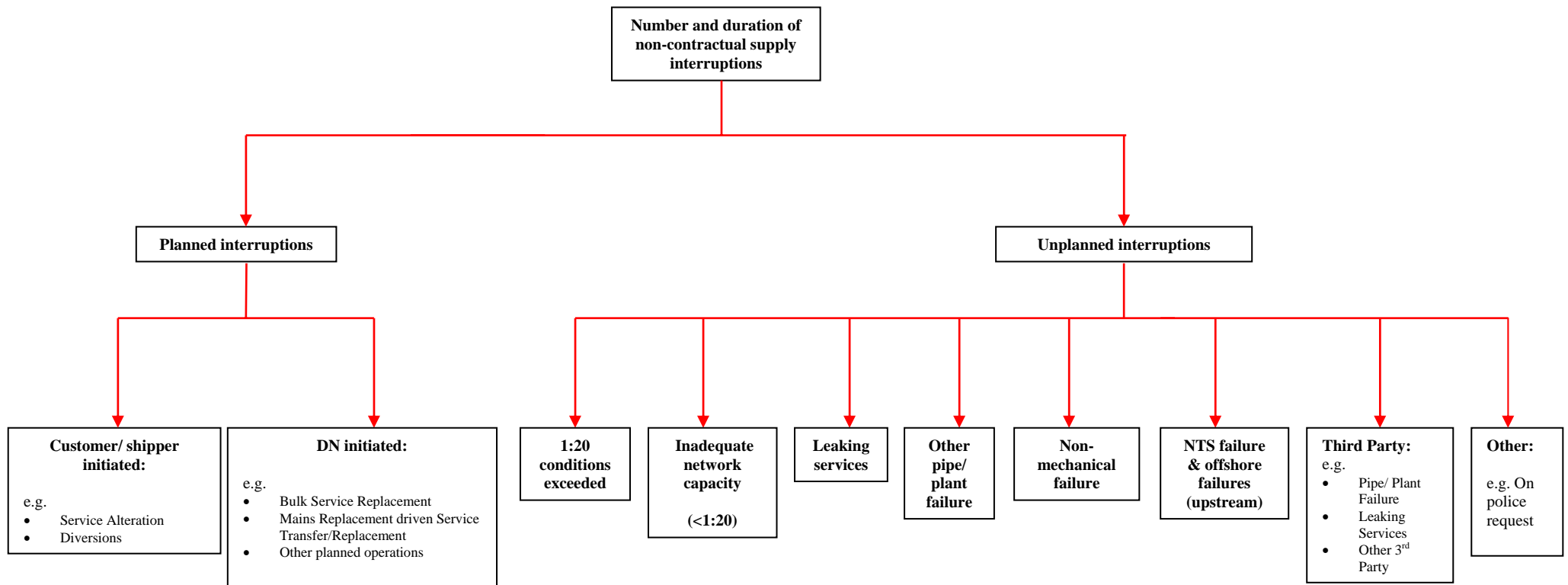
- 10.3 Transco must provide explanatory narrative for trends in each of the measures listed above.

11. Reporting arrangements – Transmission

- 11.1 This section sets out the reporting arrangements to apply in each reporting year in relation to the environmental reports and supporting information.
- 11.2 The normal reporting year for the provision of the information required under the relevant condition is from 1 April of the relevant year to 31 March of the following year.
- 11.3 Transco is required to submit the information required under the licence condition by 31 July in each relevant year.

Appendix 1 Breakdown of the number and duration of Network non-contractual interruptions by cause

Figure A.1 Sources of interruptions



Appendix 2 Customer survey questionnaire

- 2.1 This Appendix sets out the two sets of questions that each DN is required to ask customers to fulfil the requirements of standard special condition D9.
- 2.2 Each DN (and their appointed third party) is required to send out these questions along with the covering letter as set out in Appendix 3, adding in its company name in the square brackets as appropriate.

Customer Survey for replacement

[Company name] records show that they carried out maintenance (replacement) work on your incoming gas supply. Please complete the questionnaire using a black pen to put a cross in the appropriate boxes like this

1. Are you a domestic (home) or business customer? Please cross one box only.
 Domestic Business (please go to question 3)
2. If you are a domestic customer, are you on (or eligible for) the priority customer list? (Priority customers include people who are disabled, chronically sick or of pensionable age). Please cross one box only.
 Yes No Don't know
3. Was your gas supply interrupted as a result of the maintenance (replacement) work on your incoming gas supply? Please cross one box only.
 Yes No (please go to question 6)
4. If so, for how long? Please cross one box only. If you are not sure, give an estimate.
 0-4 hours 5-8 hours 9-12 hours 13-16 hours 17-23 hours
 24+ hours Don't know
5. How satisfied were you with the duration of this interruption to your gas supply? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
6. Did you receive notification before the work was carried out about the maintenance (replacement) work on your incoming gas supply? Please cross one box only.
 Yes No (please go to question 8)
7. If so, how satisfied were you with this advance notification about the work that needed to take place (for example, telephone calls, face to face contact, letters etc)? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
8. How satisfied were you with the communication from [company name] whilst the work was being carried out (for example, telephone calls, face to face contact, letters, etc.)? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
9. How satisfied were you with the skill and professionalism of the workforce that carried out the work at your property? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
10. How satisfied were you with the overall quality of work carried out? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)

All information given here will be treated as confidential. Your responses and comments will be used only as part of this survey and will not be attributed to you or to your address. However, it is sometimes considered appropriate to pass on comments, together with contact details to (company name) for their attention.

Please could you indicate below whether or not you are agreeable for this to happen.

- Yes, I would like my comments and contact details passed to [company name], as appropriate.
- No, I would not like my comments and contact details passed to [company name].

Customer survey for repair

[Company name] records show that they carried out a repair on your incoming gas supply. Please complete the questionnaire using a black pen to put a cross in the appropriate boxes like this

1. Are you a domestic (home) or business customer? Please cross one box only.
 Domestic Business (Please go to question 3)
2. If you are a domestic customer, are you on (or eligible for) the priority customer list? (Priority customers include people who are disabled, chronically sick or of pensionable age). Please cross one box only.
 Yes No Don't know
3. Was your gas supply interrupted prior to or during the repair work on your incoming gas supply? Please cross one box only.
 Yes No (Please go to question 6)
4. If so, for how long? Please cross one box only. If you are not sure, give an estimate.
 0-4 hours 5-8 hours 9-12 hours 13-16 hours 17-23 hours
 24+ hours Don't know
5. How satisfied were you with the duration of this interruption to your gas supply? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
6. How satisfied were you with the communication from [company name] whilst the work was being carried out (for example, telephone calls, face to face contact, letters etc)? Please cross as appropriate
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
7. How satisfied were you with the skill and professionalism of the workforce that carried out the work at your property? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)
8. How satisfied were you with the overall quality of work carried out? Please cross as appropriate.
 Very satisfied (5) Satisfied (4) Neither (3) Dissatisfied (2) Very Dissatisfied (1)

All information given here will be treated as confidential. Your responses and comments will be used only as part of this survey and will not be attributed to you or to your address. However, it is sometimes considered appropriate to pass on comments, together with contact details to [company name] for their attention.

Please could you indicate below whether or not you are agreeable for this to happen.

- Yes, I would like my comments and contact details passed to [company name], as appropriate.
- No, I would not like my comments and contact details passed to [company name].

Appendix 3 Standard form letter for customer survey

3.1 This Appendix sets out the standard form letter that DNs (and their appointed third party) should use when sending out the customer survey to customers.

Gas Customer

[Customer Address]

[Date]

Dear Gas Customer,

Your Views Make a Difference

[Company] is responsible for ensuring that gas is piped safely and efficiently to more than [x] million homes and businesses across the [geographical area]. So, whoever you choose as your gas supplier, [Company] is responsible for piping the gas to your meter.

As an organisation, [Company] is always looking for ways to improve the service it offers to gas customers. To help in this process [Company] has commissioned [agency name] to conduct a survey on their behalf.

[Agency name] is an independent company and we would like to assess your satisfaction with performance in completing work at your property. I enclose a questionnaire and would be very grateful if you could spare the time to complete and return it in the envelope provided. The questionnaire should only take a couple of minutes to complete and your participation in this survey would be greatly appreciated.

[Agency name] will treat any answers you give with complete confidence and will not attribute them to you personally. On completion of the survey, [agency name] will return all data to [Company] and if there is any information which personally identifies you, it will be destroyed unless otherwise requested by you.

If you need to contact [Company], either in relation to this questionnaire or work carried out, please contact the [Company] Customer Service Team on [insert details].

Thank you for your help.

Yours faithfully,

xxxxx

Safety note: If you smell gas, please call the national 24 hour gas emergency service on freephone 0800 111 999 (calls will be recorded and may be monitored).

Appendix 4 Standard format for reporting customer survey results

- 4.1 This Appendix sets out how DNs should report the results from the customer surveys to Ofgem.
- 4.2 The relevant questions (i.e. those questions which ask the customer to score the DN's performance) for each type of customer survey should be reported to Ofgem in the following format:

Question	Mean score	Upper level at 95% confidence interval	Lower level at 95% confidence interval
Question 1			
Question 2			
Question 3			
Question 4			
Question 5			
Combined score			

- 4.3 The responses to the other survey questions should be reported to Ofgem in MS Excel format, using tables and 100% stack bar charts where appropriate.