



Chapter Three

Transportation Charges

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3. Transportation Charges

3.1 Introduction

Transportation charges are set to comply with a price control formula set by Ofgas, the gas industry regulator. The formula governs the maximum revenue that Transco can earn for gas transportation services in the formula year. The formula year runs from 1 April to 31 March.

If Transco collects more or less than the allowed revenue, an adjustment is made to the maximum allowed revenue for the following formula year. Charges are normally changed in October to enable account to be taken of any such adjustment. However charges may be changed at other times, in accordance with the notice periods laid down in Condition 3 of BG's Public Gas Transporter (PGT) Licence, and in the Network Code.

This chapter describes the price control formula and the way in which transportation charges are derived. It also describes likely developments in transportation charging.

3.2 Price Control Formula

The price control formula in BG's PGT Licence is set by Ofgas and is normally reviewed every five years. The present formula came into effect on 1 April 1997 and includes factors relating to:

- the volume of gas transported to business and domestic users; half of the allowed revenue in this category is fixed and half relates to the volume of gas transported;
- the volume of gas transported to large users - mainly interconnectors, power stations and large feedstock loads consuming more than 50 million therms a year. Again half of the allowed revenue in this category is fixed and half relates to the volume of gas transported;
- the rate of inflation. The formula is designed to change allowed revenue by a factor equal to two percentage points less than inflation, measured by the change in the Retail Price Index (RPI - 2%); and
- any under or over recovery from the previous formula year.

The costs associated with obtaining meter readings for Non-Daily Metered consumers are subject to a cost pass through mechanism. All such costs will be subject to an economic purchase test, which is presently subject of an Ofgas investigation.

Allowed revenue depends on a number of factors that must be forecast when setting transportation charges. Consequently, there is likely to be some difference between allowed revenue and the income actually generated by charges - most of the difference is normally associated with differences between actual and forecast demand. Any such under or over recovery is carried forward to the next formula year.

Transco has calculated that its income in the twelve months to 31 March 1998 was £169 million less than allowed by the formula. This under recovery, plus interest of £12 million, will be carried forward and increase the allowed revenue for the formula year to 31 March 1999 by £181 million.

After consulting with the industry, Transco have set charges at a level that should recover the £181 million over two years (on the basis of present volume forecasts and assuming normal weather patterns). On this basis, charges need to increase by an average of 2% from 1 October 1998.

3.3 Charging Methodology

Condition 3 of BG's PGT Licence requires Transco to establish a methodology showing the methods and principles on which transportation charges are based. Transco's present charging methodology was introduced in 1994 and is modified from time to time in accordance with Condition 4 of the Licence.

The Licence also requires that transportation charges:

- reflect the costs incurred by Transco; and subject to this principal consideration, also
- facilitate competition between shippers and between suppliers; and
- take account of developments in the transportation business.

In addition, Transco aims to ensure that transportation charges promote efficient use of the transportation system, are stable and are easy to understand and implement. There is often some conflict between the various objectives so, before Transco makes any changes to the methodology, it consults with the industry in an effort to strike the right balance. Ultimately, Ofgas has the right to veto any proposed methodology changes.

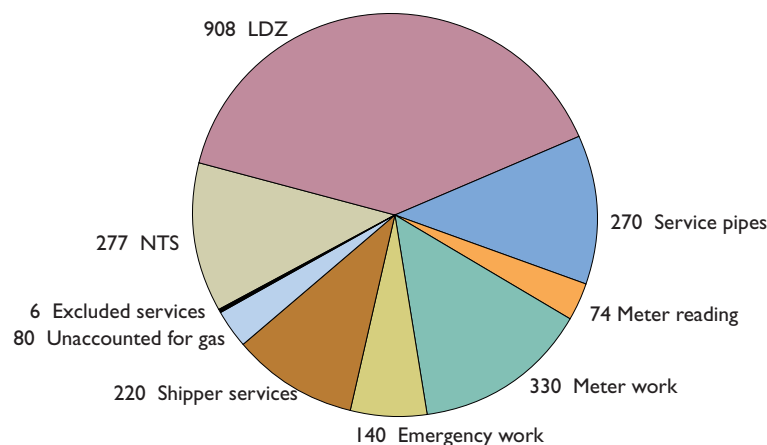
This section describes Transco's present transportation charging methodology.

3.3.1 ABC Cost Pools

The PGT Licence requires that transportation charges reflect costs. In order to fulfil this requirement, Transco uses the Activity Based Cost (ABC) model as the basis for determining the proportion of revenue to be recovered from users of the different tiers of the transportation system.

The ABC model analyses the costs of around three hundred and fifty core activities. A summary of the 1997 analysis is shown in figure 3.3.1. In order to promote transparency of cost information, Transco publishes an ABC analysis annually.

Figure 3.3.1 1997 ABC Costs (£ million)



For the purpose of setting charges, a number of adjustments are made to the historic ABC costs in order to derive an estimate of ongoing costs (for example, restructuring and decontamination costs are excluded). The adjusted costs are then assigned to four cost pools:

- National Transmission System;
- Local Distribution Zone;
- Customer (excluding meter work); and
- Meter Work.

Finally, since allowed revenue under the formula is not expected to equal ABC costs, the difference (equivalent to the return on investment in assets) is allocated to the cost pools in proportion to asset values. After consulting with the industry on the extent to which transportation charges should be rebalanced to reflect the 1997 ABC cost pools, Transco have decided to retain the 1996 cost pool analysis as the basis for the 1998 transportation charges.

The following sections describe how transportation charges are established within each of the ABC cost pools.

3.3.2 National Transmission System Charges

The National Transmission System (NTS) is a network of pipelines operating at pressures up to 75 bar through which gas is transported from system entry points to Local Distribution Zones, other connected systems and individual large consumers.

NTS charges are the main economic signals given to producers and shippers regarding the cost of using the NTS. The charges are split into capacity and commodity elements. For the year to October 1998 capacity charges were set to collect 65% of the income from NTS charges, with 35% being collected through a commodity charge.

NTS capacity charges are split into system entry charges, determined by the entry point, and exit charges, determined by the exit zone in which the offtake point is located. Capacity charges are based on the long run marginal costs of extending the system to meet increased demand and reflect the costs of providing extra capacity at different points on the system. The aim of the methodology is to promote more efficient use of the system by incentivising shippers to use those parts of the system where the cost of meeting this demand is lowest.

All gas transported through the NTS is subject to either a standard commodity charge, or an optional tariff that varies with load size and distance from the local entry point.

Appendix 11 describes the NTS charging methodology, including the calculation of long run marginal costs and the optional NTS commodity tariff. Figure 3.3.2 shows the entry and exit zones used in setting the charges.

Figure 3.3.2 National Transmission System



KEY

- Existing pipeline
- Regional Offtakes
- Interconnector
- ▲ Terminal
- LNG Storage
- Salt Cavity
- Exit Zones

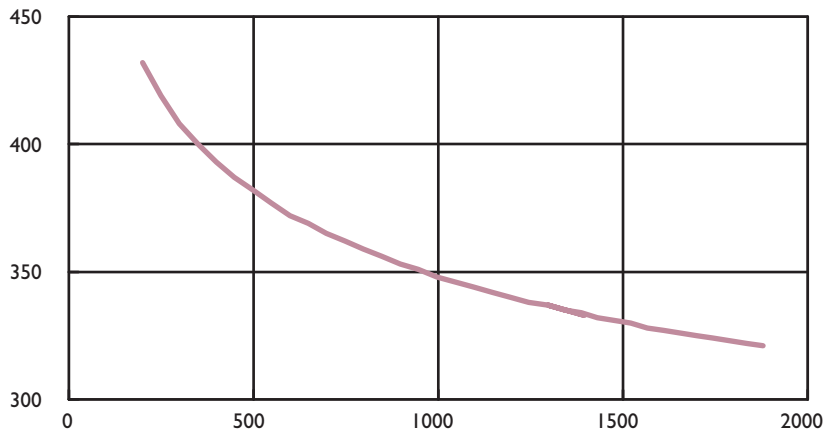
3.3.3 Local Distribution Zone Charges

Each Local Distribution Zone (LDZ) contains:

- the Local Transmission System; a network of pipelines operating generally at pressures up to 38 bar; and
- the Distribution System; a network of mains operating in three pressure tiers: intermediate (2 to 7 bar), medium (75 mbar to 2 bar) and low (below 75 mbar).

The principle underlying the LDZ charging methodology is that customers should be charged according to their use of the various tiers of the LDZ system. Analysis has shown that there is a good correlation between customer size and offtake tier - that is large customers are typically supplied from higher pressure tiers and small customers from lower pressure tiers. LDZ capacity and commodity charges are therefore based on the site peak capacity.

Figure 3.3.3 LDZ Capacity Charge



Appendix 12 describes the LDZ charging methodology in more detail.

3.3.4 Customer Charges

Customer charges are designed to reflect customer-related costs, such as costs relating to service pipes, meters and emergency work. The customer charge also reflects costs relating to Customer Portfolio Management and a proportion of other shipper service costs including Billing, Account Management and Service Development.

As with LDZ charges, the variable element of the customer charge is a function of customer size. However, for supply points that consume between 73,200 and 732,000 kWh per year, the function has been simplified to a fixed capacity charge.

For smaller supply points, consuming less than 73,200 kWh per year, Transco believes that the majority of customer-related costs are fixed. However, there is some tension between the PGT licence objectives of reflecting costs and facilitating competition in the domestic sector. Therefore, only part of the customer charge is levied as a fixed charge, with the remainder of the income being collected through a commodity charge.

Charges relating to non-daily meter reading have been quoted separately since October 1997. This reflects that NDM meter reading services are provided under a contract separate to the Network Code. Furthermore, Ofgas have made clear their view that the costs of Transco's metering activities should be unbundled from the core transportation charges. In light of this, after consulting with the industry and subject to progress with the unbundling of metering activities from Transco's transportation activities, Transco will make available as a rebate from 1 April 1999 the element within customer charges relating to the provision of the Transco metering service.

Charges for dataloggers are based on typical capital and operational costs, including costs associated with administration, line rental, repairs and maintenance.

The customer charging methodology is described in Appendix 12.

3.3.5 Interruptible Charges

Firm transportation charges comprise NTS and LDZ capacity and commodity charges plus customer charges. For supply points that have been nominated by a shipper as interruptible, Transco has the right to interrupt the gas supply for up to 45 days a year. To reflect this service, the shipper pays neither the NTS exit capacity charge nor the LDZ capacity charge.

Transco reserves the right to interrupt a few supply points for more than 45 days each year in order to safeguard system security. These supply points, known as Transco Nominated Interruptibles, are entitled to discounted NTS and LDZ commodity charges based on the number of days that they are available for interruption.

3.3.6 Meter Reading Charges

Transco's non-daily meter reading services are provided to shippers under the terms of a contract, not the Network Code. During 1998, Transco worked with Ofgas and the shipper community to develop a new incentive-based contract and associated charges. The charges apply only where shippers choose to use the Transco service. The main features of the charges are that:

- shippers are charged only for actual meter readings supplied by Transco;
- shippers are charged a 50% premium for reads above a standard performance level;
- charges are based on the configuration of supply points and meter points within each shipper's portfolio;
- the charges comprise a supply point and a meter point element since, in general, the cost per meter at supply points with more than one meter will be lower than at supply points with a single meter. The meter point element of the charge is capped to limit the total charge payable;
- there is a separate charge for opening reads at sites consuming more than 73,200 kWh; and
- there are separate charges for various non-cyclic reads such as must reads, special reads, next day rapid reads and same day rapid reads.

3.3.7 Charging for Connected Systems

Connected System Exit Points (CSEPs) are points at which Independent PGTs and other pipelines connect to Transco's system. A special charging treatment applies to transportation to CSEPs. Standard NTS exit and commodity charges apply, but the LDZ unit charges are based on the total peak capacity of the connected system, divided by the number of connections to the Transco system.

Standard customer charges do not apply. Instead, a CSEP administration charge is levied to reflect Transco's administration costs.

3.3.8 Other Charges

Further charges apply in respect of:

- the administration of pre-Network Code contracts;
- the administration of allocation arrangements at shared supply meter points and Interconnectors;
- Transco-supplied meter reads (Must Reads) where a shipper has been unable to provide meter readings in compliance with the Network Code; and
- the Transco Isolation service of removing or clamping meters.

Details of the charges included in sections 3.3.7 and 3.3.8 can be found in the transportation charging statement. The methodology used to calculate the appropriate level of these charges is based on an assessment of the direct costs of the ongoing activities involved in managing the services. The costs are forward looking and take into account anticipated enhancements to the methods and systems used. In accordance with Transco's background paper "Charging for Specific Services - Cost Assignment Methodology" May 1998, a suitable level of uplift is added to the direct costs to account for support and sustaining costs.

3.4 Future Developments

This section outlines likely developments in transportation charging. In considering such developments Transco must ensure that any changes to the charging methodology are consistent with the PGT Licence objectives. As noted earlier, there is some tension between these objectives, particularly those objectives that require charges to reflect costs and facilitate competition between shippers and suppliers. The debate about the right balance between these objectives was highlighted by the Government's Green Paper on utility regulation. Transco expect these issues to be the focus of ongoing discussion within the industry.

The main development areas are described in the following sub-sections.

3.4.1 NTS Developments

During 1997 a sub-group of the Ofgas Transportation Charging Methodology Steering Group reviewed the present NTS charging methodology and a development proposed by Transco based on the introduction of charging nodes. The sub-group concluded that it was not desirable to move to a three node model in the short term because of concerns about the possible effects on gas trading. It also concluded that improved capacity definition would facilitate trading. Transco therefore intends to examine ways of improving the present entry/exit charging model, in particular the development of services for different types of NTS capacity.

Transco also intends to release Transcost, a PC-based model for calculating NTS charges, during 1998. Transcost uses the same basic process for calculating charges as the present mainframe system but it has the following advantages:

- faster processing time. By simplifying some of the assumptions used to calculate charges, processing time has been reduced;
- improved stability. The reduced processing time allows Transcost to analyse all ten years of the plan period, improving the stability of the resulting charges; and
- increased transparency. Transcost runs on a PC and has been designed to allow shippers and other organisations to gain a better understanding of how NTS charges are calculated.

3.4.2 LDZ Developments

Transco intends to review the basis for LDZ charges with a view to implementing any changes from October 1999. The work will include an analysis of the appropriate capacity/commodity split and an examination of whether the present average cost based approach is still appropriate. In particular, Transco intends to review the cost reflectivity of LDZ charges to CSEPs and to review charges to interruptible loads to ensure that they are consistent with the development of new interruptible services.

3.4.3 Metering Developments

At present, with the exception of NTS loads, Transco provides all metering at supply points. This service includes the supply, installation, maintenance and replacement of meters, the costs of which are reflected in the customer charge. However, the Director General of Gas Supply has been considering how to extend competition in metering and has made clear her view that Transco's metering activities should be unbundled.

Any unbundling proposals would lead to separate metering charges, enabling customers to choose the price and service that best meets their needs. Ofgas intend to consult on the issues surrounding the unbundling of meters, including the development of a separate price control formula, during 1998. When effective competition has been secured, charges for metering services should be determined by the market, with no need for regulatory constraints on price levels.

In the shorter term, in the absence of a separated metering business, Transco has proposed separate charges for metering services based on the existing organisation and its costs. The element within customer charges relating to the provision of the Transco metering service has been identified separately for the first time. Subject to progress with the unbundling of metering activities from Transco's transportation activities, this element will be available as a shipper rebate from 1 April 1999 where a meter is supplied other than by Transco. Transco believes that the basis for the charges will need to be reviewed as detailed proposals for unbundling are developed.

Transco will also make a separate charge of £10 per annum for prepayment meters to reflect the additional capital and maintenance costs of these meters compared to standard credit meters.

3.5 Summary

- Transco's income for the formula year to 31 March 1998 was £175 million less than allowed by the price control formula. However, Transco intends to set transportation charges from 1 October 1998 with the aim of recovering this revenue plus interest over two years, rather than the one year allowed by the formula. Consequently, on average, charges for 1998/99 are expected to be 2% higher than the previous year.
- New Non-Daily Meter reading charges have been introduced in connection with the move to incentive-based meter reading contracts.
- An optional NTS commodity tariff has been introduced. This tariff varies according to size of load and distance from the local entry point.
- Transco has made a number of changes to its charging methodology, including the introduction of separate metering charges to facilitate unbundling, and an additional charge for prepayment meters.
- Transco intends to review the methodology used to calculate LDZ charges.