Transco, Shippers and Other interested parties

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Dear Colleague,

Modification Proposal 492: Proposal to fix the national LDZ Shrinkage factor from 1 October 2001, pending validation of the 1992 NLT leakage rates

Ofgem has carefully considered the issues raised in Modification Proposal 0492 *'Proposal to fix the national LDZ Shrinkage factor from 1 October 2001, pending validation of the 1992 NLT leakage rates'*. Ofgem has decided to direct Transco not to implement this modification because we believe that it does not better facilitate the relevant objectives of Transco's Network Code.

In this letter we outline our reasons for this decision.

Background to the proposal

Transco receives funding under its allowed Price Control revenue to meet the cost of shrinkage. LDZ shrinkage is composed of gas that leaks from the network, gas used for transportation purposes (Operational Usage) and gas stolen from the network[1]. Leakage is by far the largest component of LDZ shrinkage by volume.

In order to enable Transco to procure gas to cover shrinkage on a daily basis, a shrinkage factor is set ex ante. Transco then procure a quantity of gas equal to throughput multiplied by the shrinkage factor[2]. The difference between the cost of actual shrinkage and the cost of gas procured by Transco will be met by shippers supplying customers who are billed through the Reconciliation by Difference (RbD) process. If the applied shrinkage factor is less than actual shrinkage then profit will be redistributed from RbD shippers to Transco, and vice versa.

The leakage estimate is derived from Transco's National Leakage Reduction Monitoring Model, which is based on asset data held by Transco, average network system pressures, Monoethylene Glycol (MEG) saturation levels[3] and the leakage rates determined through the National Leakage Test (NLT). The NLT was carried out in 1992 and determined average leakage rates for mains of different materials and diameters.

Under Section N3 of the Network Code, Transco has an obligation to submit, by no later than 1 July, an estimate of the LDZ shrinkage factor to be applied to each LDZ for the following gas year and the methodology applied to establish this estimate. Following a consultation period, Transco is then obliged to submit to Ofgem and all Users its final estimate of the LDZ shrinkage factor. This shrinkage factor will apply from 1 October unless any User applies to Ofgem for disapproval of the

[1] Transco is liable for only that gas which is stolen upstream of the customer control valve and downstream if there is no shipper contract with the end user.
[2] This procurement is performed on an LDZ-specific basis, using LDZ factors. When applied to LDZ throughput, these LDZ factors aggregate to the national shrinkage factor.
[3] MEG is added to gas to reduce leakage at flanged joints in cast iron distribution mains.

proposal, under Standard Condition 7(4) of Transco's GT Licence, and Ofgem consents to this disapproval. In such cases, the shrinkage factor will remain unchanged from the preceding gas year.

The shrinkage factor applying for the gas year 1997/8 was 0.98%, this was reduced to 0.91% for the year 1998/9. The shrinkage factor proposed by Transco to apply for the gas year 1999/00 was disapproved by the Director General of Gas Supply, following the receipt of an application for disapproval by a relevant User. As such, the shrinkage factor applied during the gas year 1999/00 was equal to that which applied in the preceding year, 0.91%. For the gas year 2000/01, Transco did not propose a change to the shrinkage factor.

On 31 August 2001, Transco issued its final proposal for the shrinkage factor for the gas year 2001/02. Transco proposed that the shrinkage factor be reduced to 0.86% of LDZ throughput. On 25 September 2001, Ofgem issued a disapproval of Transco's proposal for the gas year 2001/02, under Standard Condition 7(4) of Transco's Gas Transporters Licence.

The modification proposal

The proposal seeks to set the national LDZ shrinkage factor to a fixed rate of 1% until such time as the leakage rates derived from the 1992 NLT can be validated by an appropriate exercise. Further, Transco would determine the design and progress of this exercise, with input from shippers and Ofgem.

Following the satisfactory completion of the validation exercise, the new leakage rates would be applied to the shrinkage factor applied during the gas year in which the tests were completed. There would be no retrospective application of the new rates to years prior to the completion.

Respondents' views

Of the six respondents, five supported the proposal. One respondent expressed conditional support for fixing the shrinkage factor, pending the validation of the NLT, but did not support an increase in the factor to 1%.

All of the respondents supported some form of exercise to improve the accuracy of the current LDZ leakage rate, through validation of the 1992 NLT. A number of respondents highlighted the importance of the leakage estimate to the RbD, and the demand deeming processes. Two respondents stated that an improvement to the estimate of leakage would improve the information available to estimate the other components of shrinkage. One respondent added that although leakage is one of the many assumptions included within the LDZ shrinkage calculation, it is an assumption that can be validated.

Respondents highlighted a number of reasons why the 1992 NLT should be validated, including the high statistical uncertainty of the first tests and the fact that the tests were designed in a different commercial framework and for a purpose other than the estimation of LDZ shrinkage. Another respondent highlighted that a validation of the 1992 NLT would improve cost targeting and thus better facilitate the relevant objectives of Transco's Network Code.

Several respondents noted that Transco had proposed to undertake an exercise to validate the results of the 1992 NLT. However, respondents raised concerns over the incentives placed on Transco to perform these tests, with one noting that Transco had given no commitment to repeat the NLT. Three respondents specifically noted that following implementation of the modification Transco would have an incentive to undertake a validation of the 1992 NLT if the actual level of shrinkage was below 1%.

One shipper added that implementing a fixed shrinkage factor until the 1992 NLT was validated would introduce added certainty in the LDZ shrinkage regime.

The respondent expressing opposition to the introduction of a fixed 1% factor highlighted that without new leakage tests there was insufficient evidence to introduce a lower shrinkage factor but that equally the case for a higher one has not been made. This respondent added that overstating shrinkage would understate shippers' perception of the costs of theft, undervaluing the actions that could be taken to reduce this cost.

Transco's views

Transco does not support the implementation of this modification proposal as, in its view, the application of an arbitrary shrinkage factor would be contrary to the operation of an economic and efficient system.

Transco state that the calculation of the LDZ shrinkage factor is based on the best available methodologies and using the best available data. The figure of 1% is, in contrast, arbitrary and is not based on any objective methodology.

Transco highlights that setting the shrinkage factor at 1% would represent a considerable increase on the factors proposed for 2001/2 and applied for 2000/1. The modification proposal therefore seeks to impose a financial penalty on Transco and is therefore not consistent with the relevant objectives. Transco add that it is their intention to carry out a NLT in 2002, subject to funding and support from Users.

Transco state that the proposer has provided no evidence to suggest that the shrinkage factor being proposed is biased in favour of any Users and highlights that any overstatement of shrinkage is borne by Transco.

In relation to the 1992 NLT, Transco highlight that the survey was independently verified by the Warren Spring Laboratory and the University of Newcastle-upon-Tyne. Transco also contend that the commercial environment would have no impact upon the physical test methodology applied to any future tests and that there is no evidence to suggest that the validity of the tests has declined with the passage of time.

Transco's does not agree with the proposer's assertion that the modification would improve the industry's actions to address theft of gas; fixing the shrinkage factor would also fix the element relating to theft.

Transco also highlight that fixing the shrinkage factor at a high level would be inequitable, as it benefits only RbD shippers and not those Users with no domestic supply points.

Ofgem's views

In Ofgem's opinion, this modification proposal fails to better facilitate the relevant objectives of achieving the efficient and economic operation of the network and securing effective competition between relevant shippers.

Ofgem has consistently stated that some form of exercise to validate the results of the 1992 NLT would significantly improve the accuracy of the shrinkage factor. Both Ofgem and shippers participating in the LDZ shrinkage forum have expressed this view during the consultations on the 1999/2000, 2000/1 and 2001/2 LDZ shrinkage factor proposals. Ofgem also noted the high priority given to such an exercise by the shippers participating in this forum. Indeed, the failure by Transco to undertake such an exercise was a significant factor contributing to Ofgem's decision to grant Condition 7(4) disapproval of Transco's proposed shrinkage factor for the gas year 2001/2.

However, Ofgem does not accept that Transco faces no incentives to perform a validation of the 1992 NLT. Within the price control period Transco has an incentive to prove that actual shrinkage has fallen, as this reduces the volume of gas that Transco must procure. Further, Transco's failure to perform an appropriate validation exercise could result in Transco failing in its obligation to operate an efficient and economic network, due to its impact on cost allocation between shippers and between shippers and Transco. As such, Ofgem does not believe that the imposition of a shrinkage factor equal to 1% would introduce a new incentive, but it would increase the current financial incentives on Transco.

However, Ofgem believes that an increase in the shrinkage factor to 1% would not better facilitate the efficient and economic operation of the pipeline system. The reduction in the shrinkage factor to 0.91% resulted from a period of consultation between Transco and shippers, and represented the best estimate of LDZ shrinkage at that time. Ofgem has accepted that there is insufficient evidence to support a reduction in this factor, but equally Ofgem believes that there is insufficient evidence to support an increase. Further, Ofgem agrees with Transco that an increase in the shrinkage factor would financially benefit RbD shippers and not those users with no domestic supply points, thereby discriminating between relevant shippers, in the event that the increase does not reflect actual shrinkage.

The need to impose incentives on Transco to improve the estimation of LDZ shrinkage must be set against the need to target costs as accurately as is possible. Indeed, Ofgem accepts the concerns raised by one respondent that arbitrarily increasing the LDZ shrinkage factor would change shippers' perception of the costs of other components of LDZ shrinkage, potentially distorting their evaluation of the costs of, for example, theft of gas.

Ofgem's decision

Ofgem has decided to direct Transco not to implement this modification because we believe that it does not better facilitate the relevant objectives outlined under Standard Condition 7 of the Gas Transporter's licence. In our view, an arbitrary increase in the LDZ shrinkage factor could reduce the efficiency of cost targeting, and discriminate between Users, in a similar way as an arbitrary decrease in the factor.

If you have any queries in relation to the issues raised in this letter, please feel free to contact me on the telephone number above

Yours sincerely,

Steve Smith
Director, Trading Arrangements