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Dear Colleague

Network code modification 0711 “Amendment of Network Entry Provisions at BP sub-terminal at Dimlington”

Ofgem¹ has carefully considered the issues raised in modification proposal 0711 to Transco’s network code, “Amendment of Network Entry Provisions at BP sub-terminal at Dimlington”.

Having had regard to the principal objective and statutory duties of the Authority, Ofgem has decided to direct Transco to implement modification proposal 0711 because Ofgem considers that the proposal will better facilitate the relevant objectives of Transco’s network code under standard condition 9 of Transco’s Gas Transporters (GT) licence.

In this letter, Ofgem explains the background to the modification proposal and gives reasons for making its decision.

Background to the proposal

Gas Safety (Management) Regulations (GS(M)R)

The GS(M)R, which are part of health and safety legislation, set the legal parameters for gas entering into and leaving the GB gas network. These parameters are set to ensure the safe distribution and utilisation of gas. All gas entering the National Transmission System (NTS) at

¹ Ofgem is the Office of the Gas and Electricity Markets Authority. The terms ‘Ofgem’ and the ‘Authority’ are used interchangeably in this letter.

either sub-terminals or in some cases specified downstream blending points² must comply with these regulations.

Network entry agreements / legacy contracts

In addition to the GS(M)R, Transco has its own individual gas quality specifications at each entry point, which it agrees with the relevant sub-terminal operator. At some sub-terminals, these specifications are contained in Network Entry Agreements (NEAs). NEAs are subsidiary documents governed by Transco's network code. However, at some of the sub-terminals, these specifications are contained in pre-network code agreements (so called "legacy" contracts). These legacy agreements were signed primarily by British Gas and the relevant producers at the entry points prior to the introduction of Transco's network code in 1996.

The gas quality specifications contained in these agreements are referenced in Transco's network code. Under section I of Transco's network code, any changes to the Network Entry Provisions (NEPs), which include gas entry conditions, measurement provisions and the point or points of delivery, need the written consent of all users who are registered at such a date when the amendment is to take effect. Alternatively, changes to NEPs can be progressed via a modification proposal.

Gas quality parameters

Natural gas contains hydrocarbons (methane, ethane, propane, and butane), small quantities of hydrogen, inert gases such as nitrogen and carbon dioxide, and contaminants such as hydrogen sulphide, oxygen and mercury. In the UK, gas appliances are designed and tested to operate on methane. The appliances are tested with this reference gas and some tests are also performed with limit gases. The limit gases³ are those which fall at the upper and lower ends of the GS(M)R Group H Wobbe range. The Wobbe index is related to calorific value (CV) and density. The GS(M)R range for the Wobbe number is 47.2 MJ/m³-51.41 MJ/m³.

Transco's obligations

Transco has a number of obligations within the GS(M)R, the Gas Act 1986 and its GT licence that are relevant when considering changes to gas quality arrangements at entry terminals.

Transco must comply with the GS(M)R when allowing gases to enter its transportation system at either sub-terminals or in some cases specified downstream blending points.

Under section 9 of the Gas Act 1986, Transco must comply, so far as it is economical to do so, with any reasonable request for it to connect to the system and convey gas by means of that system to any premises. In doing so, Transco must avoid any undue preference or undue discrimination in the terms on which it undertakes the conveyance of gas.

² Gas Safety (Management) Regulations 1996 Regulations 2(4) and 8.

³ Limit gases relate to gas falling at the upper and lower end of the group H classification as determined by EN 437 Gas Category H. These limit gases have a Wobbe number of 54.7 MJ/m³ at the higher end and 45.7 MJ/m³ at the lower end. These gases are usually tested to confirm that they will operate safely, if temporary excursions up to these limits occur. It should be noted that it is accepted that "operate safely" can be achieved by controlling shutdown of the appliance in a manner that presents no hazard to the user or surrounding property.

Standard condition 4D of the GT licence also states that:

“the licensee shall conduct its transportation business in the manner best calculated to secure that neither –

- ◆ the licensee or any affiliate or related undertaking of the licensee, nor
- ◆ any gas shipper or gas supplier,

obtains any unfair commercial advantage including, in particular, any such advantage from a preferential or discriminatory arrangement.”

Ofgem’s statutory duty with regards to gas quality

The principal objective of the Authority is to protect the interests of consumers⁴. Further, under the Gas Act 1986, “the Authority may with the consent of the Secretary of State, prescribe standards of pressure and purity to be complied with by gas transporters in conveying gas to premises or to pipe-line systems operated by other gas transporters”⁵.

DTI/Ofgem/HSE/DEFRA study

The Government committed in the Energy White Paper with respect to gas quality, to “keep developments here closely under review. In particular we will monitor the likely effects on gas quality”⁶. Subsequently, the Department of Trade and Industry (DTI) announced the launch of a three phase gas quality exercise. This is a joint study between the DTI, Ofgem, the Health and Safety Executive (HSE) and the Department of Environment Food and Rural Affairs (DEFRA).

This study will assess the gas quality implications for the UK as it becomes more import-dependent in the coming years. The study will consider both the need to facilitate trade in the wholesale gas market and the need to ensure that customers’ gas appliances function adequately. In phase one, a study was commissioned by the DTI from Ilex Energy Consulting Ltd⁷. It concluded that the UK’s ability to meet gas demand could be impaired by the mismatch between the national gas specification requirements with respect to the quality of gas that could be imported and the quality of potential imported gas sources. This finding launched phase two of the study, which is currently exploring the different policy options available to the UK. Phase three, which is likely to occur in mid-2005, would begin to implement the preferred policy option.

Ofgem and the DTI are also aware of the gas quality developments that are occurring in Continental Europe. These developments are mainly focusing on the work being achieved by EASEE-gas⁸, which comprises of representatives of gas transporters and other interested parties from Europe, working to agree on common gas quality standards to aid the harmonisation of the gas markets in Europe. However, the results of this forum are voluntary and therefore EASEE-gas cannot currently compel member states to adopt the standards.

⁴ Section 4AA (1) of the Gas Act 1986

⁵ Section 16 (1) (a) of the Gas Act 1986.

⁶ Energy White Paper: Our energy future creating a low carbon economy, DTI, February 2003

⁷ A copy of this report can be found on the DTI’s website in the energy section.

⁸ European Association for the Streamlining of Energy Exchange, for more information see www.easee-gas.org

Shrinkage costs

Shrinkage gas is gas lost through the transportation system at both the local distribution zone (LDZ) and NTS level. LDZ gas shrinkage includes gas lost through leakage, theft and gas used for operational purposes. NTS shrinkage gas includes own use gas⁹, unaccounted for gas¹⁰ and unbilled energy¹¹. Transco recovers the costs associated with NTS shrinkage gas through the SO commodity charge whilst LDZ shrinkage gas is recovered as part of general transportation revenue.

The costs of NTS shrinkage can be influenced by Transco's actions as NTS SO. Transco has therefore been provided with financial incentives to manage shrinkage gas costs efficiently under its GT licence as part of its NTS SO incentives. The cost target is set by multiplying forecast volumes of shrinkage gas by a reference price derived using specified forward prices. If costs are above the target, Transco faces 20% of the additional costs, whereas if costs are below the target level Transco receives 25% of the savings made. A cap of £4million and a collar of -£3million limit Transco's exposure under this incentive.

Flow weighted average CV calculations

The Gas (Calculation of Thermal Energy) Regulations 1996, written by Ofgas, specify in detail permitted methods that Gas Transporters may use to calculate the energy content of gas supplied to consumers. The 1997 Amendment Regulations introduced a concept of charging areas and flow weighted average energy content. Regulation 4 introduced a capping mechanism that prevents the gas transporter from charging for energy content higher than 1 MJ/m³ above that of the gas with the lowest energy content entering the charging zone.

Transco's system is split up into a number of charging areas. Some of these charging areas receive gas from a single feeder (e.g. Scotland) and others receive gas from a number of feeders, all with varying CV contents. The gas supply is metered (to a good degree of accuracy) at each entry point to a charging area and shippers pay for gas measured at these meters. In these charging areas, the energy content of gas that is delivered to customers, is measured on a flow weighted average (FWA) basis reconciled via RbD (reconciliation by difference). The FWA methodology, in using averaging, could lead to some customers receiving a higher energy content of gas for the price they pay and some customers could receive a lower energy content of gas for the same price. However, when the FWA methodology was approved, it was judged that the costs of introducing more accurate metering to ensure accuracy were judged to be too high relative to the benefits of marginally more accurate cost targeting.

⁹ Own use gas includes gas used for compression, venting and preheating.

¹⁰ Unaccounted for gas arises from meter inaccuracies and discrepancies between measured flows and actual physical flows leading to differences in measured NTS entry and exit volumes.

¹¹ Unbilled energy is the result of differences between the actual CV of gas delivered onto the NTS and the average (flow weighted) CV upon which billing is based.

Modification proposal 0681 "Amendment of Network Entry Provisions at ConocoPhillips sub terminal at Theddlethorpe"

Network code modification proposal 0681 sought to change some of the gas quality parameters currently in place at ConocoPhillips sub-terminal at Theddlethorpe. These parameters included extending the current Wobbe range from 48.3 – 51.3 MJ/m³ to 47.36 – 51.41 MJ/m³, increasing the lower limit of CV for the gas from 36.9 MJ/m³ to 37.3 MJ/m³ and aligning hydrogen, soot index and incomplete combustion with the GS(M)R limit. Ofgem accepted modification proposal 0681 on 16 July 2004 after assessing that there was no identified increase in direct costs as a result of the changes to the gas quality parameters at entry.

Modification proposal 0707 "Amendment of Network Entry Provisions at Total E&P UK sub-terminal at St Fergus"

Network code modification proposal 0707 sought to change the Wobbe number upper limit at Total E&P UK's sub-terminal at St Fergus from 51.0 MJ/m³ to 51.41 MJ/m³. Ofgem accepted modification proposal 0707 on 13 August 2004 after assessing that there was no identified increase in direct costs as a result of the changes to the gas quality parameters at entry.

The modification proposal

Modification proposal 0711 was proposed by BP Gas Marketing Ltd on 8 September 2004. This modification proposal seeks to amend the NEPs at BP Gas Marketing Ltd's sub-terminal at Dimlington. Specifically, the modification proposal seeks to extend the current Wobbe range from 48.2 – 51.2 MJ/m³ to 47.2 – 51.41 MJ/m³, to align hydrogen, soot index and incomplete combustion with the GS(M)R limits and to revise the water dewpoint specification from - 10 °C @ 69 barg to -10 °C @ 70.33 barg.

BP Gas Marketing Ltd requested that this modification proposal be granted urgent status to ensure that a decision would be received before the start of the next gas year which commences on 1 October 2004. On 8 September 2004, Ofgem agreed to grant urgency status because it considered this modification proposal to be linked to a time related event.

Transco's cost paper

Transco published a paper assessing the costs of implementing this modification proposal on its system. Transco noted that at present, it does not envisage this modification proposal having any effect on Transco's investment plans at this stage. Transco also concluded that it did not consider it likely that there would be an increase in entry capacity buyback risk at Easington within the present price control. Transco also noted that this proposal posed no risk in increasing the level of buybacks in the Northern Triangle. Transco also attempted to estimate the CV shrinkage costs as a result of this modification proposal. Transco was of the view that the precise impact is hard to estimate and the impact varies depending on the assumed flows across the NTS. However Transco did consider that this modification proposal would be likely to impact on CV shrinkage.

Respondents' views

There were six responses to the proposal, five of which were broadly supportive and one objected on the grounds that it presented serious operational difficulties to its own operation.

All of the respondents supported, at least in principle, the opportunity to amend entry conditions to maximise the current gas supplies available. Most of the respondents also cited that this modification proposal would increase security of supply and daily supply availability. One respondent explicitly stated that approval of this modification proposal would facilitate the access of future low Wobbe gas in the vicinity of the Dimlington infrastructure from 2005/06 and beyond, as well as helping the coming 2004/05 year. Most of the respondents considered that this proposal facilitated effective competition between shippers.

One of the respondents commented that the GS(M)R limits should apply at all sub-terminals. It was also noted that this is the third modification proposal of its kind this year and this respondent hoped that the DTI and HSE were being taken into consideration. This respondent also noted that the HSE did not reply to modification proposal 0681 but requested that Transco liaise with the HSE on such issues.

One of the respondents, although offering support to the principle, did have some concerns. First, it wanted some clarification as to why Ofgem granted this proposal urgency status, secondly the respondent asked why the proposer had not used section I2.2.2 in Transco's network code to change the entry specifications at the terminal. This section states that amendments of NEPs can occur with the consent in writing of all users who are registered at the date when such amendment is to take effect as holding system entry capacity at the Aggregate System Entry Point in which the relevant System Entry Point is comprised. The respondent also commented on the fact that the proposal also seeks to increase the upper Wobbe limit, even though it is only the lower limit that is compromised and finally the respondent wanted clarification that the proposal relates only to the Dimlington sub-terminal.

The respondent who could not support the proposal, stated that whilst it supported the principle it did not support the proposal because it would cause it problems at its entry point. If the specification remained the same it could cause a security of supply issue further into the winter. This is because when the gas is re-delivered into the system, it could breach the respondent's entry specification currently in place and therefore causing a security of supply constraint. This respondent has since raised a modification proposal to amend its entry specifications accordingly.

Transco's views

Transco supports the implementation of this modification proposal upon implementation of the NEA. It also agrees that it is sensible to bring the water dewpoint in line with the maximum delivery pressure for the specific terminal as is the practice for water dewpoint at most other sub-terminals. In doing this it represents a marginal improvement to the risk of water drop out by gas from this sub-terminal and therefore would have a positive impact on the operation of the system.

Transco is of the view that this modification proposal would improve security of supply by allowing more gas to come on stream and by creating an environment required for the

development of reserves. Transco also considers that this proposal should ensure effective competition between relevant shippers and suppliers.

Transco responded to the questions as to why the network code I2.2.2 was not used in this instance. Transco stated that under the current entry capacity regime and that it is hard to establish who holds entry capacity on the day of implementation of a change to the NEPs given the present extent of on-the-day trading. Transco also clarified that this proposal only affected the Dimlington sub-terminal.

Ofgem's view

Ofgem has carefully considered the views of all the respondents and Transco on this modification proposal. Having had regard to its principal objective, Ofgem considers that this modification proposal does better facilitate achievement of the relevant objectives (a) and (c) of its GT licence.

Relevant objective 9(a) of the GT licence – the efficient and economic operation by the licensee of its pipe-line system

This modification proposal allows for additional gas supplies to be made available at Dimlington. This additional supply of gas will, other things being equal, increase competition in the provision of gas balancing and other system service that Transco must procure to operate the system. Greater competition will lead to more efficient and economic operation of Transco's system. Therefore, Ofgem considers that this modification proposal better facilitates achievement of relevant objective (a) of Transco's GT licence.

Ofgem also notes that approval of this modification proposal could enable further exploitation of the Southern basin fields. This would potentially allow for further additional gas to be brought on stream, easing any supply constraints, and again enable Transco to operate the pipeline system in an economic and efficient manner.

Relevant objective 9(c) of the GT licence – securing effective competition between relevant shippers

The modification proposal would allow new gas to flow to GB via the Dimlington sub-terminal, not just from BP but any other producer that wishes to develop and exploit these lower Wobbe fields in the South North Sea. Ofgem considers that by enabling these sources of gas to come on stream this would therefore increase competition in the wholesale gas market which could lead to downward pressure on gas prices. Therefore, Ofgem considers that this modification proposal better facilitates achievement of relevant objective (c) of Transco's network code.

Other considerations

Non-discrimination

In assessing the modification proposal, Ofgem has also had regard to its wider duties. In particular, Ofgem has considered whether approving the proposed change to the gas quality entry specifications could lead to an unfair commercial advantage to shippers using this sub-

terminal relative to shippers using other terminals. Ofgem has also considered whether the arrangements would be unduly discriminatory.

When considering whether a set of arrangements are consistent with a duty to avoid undue preference or discrimination, it is normally the case that users should be charged similar prices for similar services. A set of arrangements where different users are offered different levels of service may not be unduly discriminatory if either of the following conditions is met:

- ◆ users face different prices for the different service levels and these prices reflect the costs associated with providing the different service levels; and/or
- ◆ all users are free to choose which service level they wish to have and are charged the same price irrespective of the service level.

In this context, the level of service being provided by Transco in accepting gas at an entry terminal is, at least in part, determined by the gas quality specifications set out in the NEA. Under the current arrangements, different users are receiving a different level of service at different entry terminals. Transco does not, at this time, levy any entry terminal specific charges to reflect these different service levels.

This modification proposal would, in effect, offer an enhanced service level to users of BP's sub-terminal at Dimlington by allowing them to deliver gas of higher specification than under the current arrangements. However, Transco is not proposing to introduce a charge at this time for the enhanced service being offered. Ofgem considers that offering this enhanced service without introducing a charge would be consistent with Transco's duties and obligations subject to the following conditions:

- ◆ that offering the service does not give rise to any significant additional costs relating to the changes in gas quality specifications proposed; and
- ◆ that Transco would be willing to offer the same level of service at other entry points if requested to do so.

As outlined above, on the basis of the evidence provided by Transco in its cost paper, Ofgem does not consider that the modification proposal would lead to any material additional costs being incurred as a direct result of the changes to the specifications being proposed. Therefore, Ofgem considers that the first condition is satisfied. In cases where additional costs are directly associated with variations in gas quality specifications, offering an enhanced service without a related charge could be unduly discriminatory and hence inconsistent with Transco's licence obligations. Therefore, the question of whether or not any variations in gas quality specifications directly lead to additional costs being incurred is of great importance. The second condition is also satisfied as any user who wished to request the same level of service could seek to do so through a modification to Transco's network code. Ofgem is therefore satisfied that the proposal would be consistent with Transco's duties and obligations.

Way forward

On 21 September 2004 Ofgem published a letter proposing the initiation of a gas quality review group, chaired by Transco to review the current gas quality arrangements at both entry and exit.

After a preliminary meeting with Transco, Ofgem and the industry to discuss this proposal, it was apparent that there was not a high level of support for a network code gas quality review group at present. Therefore, Ofgem is considering internally how this issue should be progressed. Ofgem will inform the industry of its plans in relation to the progression of this issue in due course.

Ofgem notes that it is for market participants to raise any further gas quality modification proposals and also notes that any further modification proposals raised will be considered on a case by case basis.

Ofgem's decision

For the reasons outlined above, Ofgem has decided to direct Transco to implement network code modification proposal 0711 because it considers that it better facilitates achievement of the relevant objectives as outlined under standard condition 9 of Transco's GT licence and is consistent with the principal objective and statutory duties of the Authority. In particular, Ofgem considers that the additional gas supplies at this sub-terminal should better facilitate achievement of the relevant objective set out under standard condition 9 (a) of the GT licence – increase the efficient and economic operation by the licensee of its pipeline and the relevant objective set out in standard condition 9 (c) of the GT licence – securing the effective competition between the relevant shippers and the relevant suppliers.

If you have any further queries in relation to the issues raised in this letter, please feel free to contact Simon Bradbury on 020 7901 7249 or Fiona Lewis on 020 7901 7436.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Steve Smith', with a stylized, cursive script.

Steve Smith
Managing Director, Markets