

## Reforms to the gas balancing regime – revised proposals

### Background

#### Security of supply

Ofgem has important statutory duties to protect customers' interests through securing effective competition wherever appropriate and ensuring secure and diverse supplies. It takes account of these duties in all its work.

To date, secure and diverse supplies have been maintained. Generating margins in electricity are more than 30 per cent, interruptions of gas and electricity supply are even more rare today than at privatisation – and investment in all parts of the gas and electricity supply chains has been high.

Work to develop arrangements that ensure security of supply cuts across all of Ofgem's work and continues to be a very high priority.

One of the key aims is to develop incentives to ensure that the national transmission systems in gas and electricity operate efficiently.

#### Concerns

A major concern Ofgem has had over the last year is the way that the gas balancing regime on Transco's National Transmission System (NTS) has been operating.

It believes that there is a need to reform the regime to ensure the future secure and efficient operation of the gas pipeline network.

Ofgem has been made aware of industry concerns about its initial proposals put forward in February 2001.

In order to allow sufficient time for Ofgem to consider these concerns, while ensuring security of supply during the winter, Ofgem received assurances from Transco and National Grid Company (NGC) that security of supply could be maintained within the existing arrangements.

However, Transco continues to report problems with balancing the system efficiently, which in some circumstances can threaten within-day security of supply. The increased interaction between gas and electricity markets following the implementation of New Electricity Trading Arrangements (NETA) has further increased the difficulties for Transco in efficiently balancing its system.

Therefore, Ofgem has developed revised proposals which are aimed at ensuring long-term security of supply through a competitive wholesale gas market that prevents prices being higher than they should be.

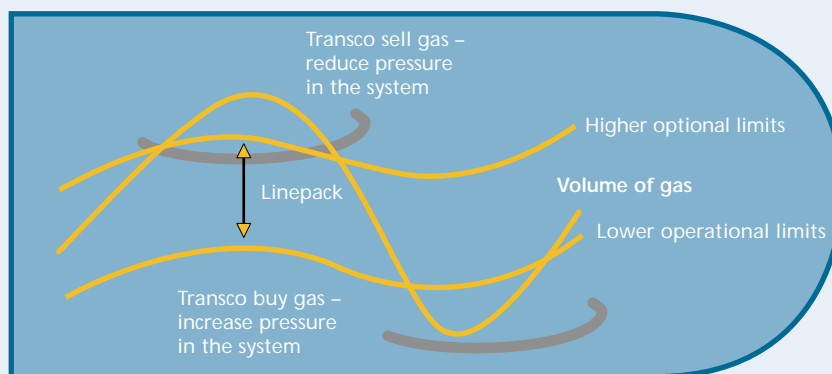
## Current arrangements

Shippers – companies who trade gas and capacity on the NTS – have commercial incentives to ensure that the amount of gas they put on to the system over each day is the same as the amount they take off the system over the day.

They also have an obligation under the Network Code to make ‘reasonable endeavours’ to flow gas on to Transco’s pipeline system at a uniform rate across the gas day.

Transco has commercial incentives to safely and efficiently manage the operation of the NTS. This includes maintaining a safe pressure level in the pipeline system by managing linepack (storage in the pipeline network) levels in the system.

### System balancing



## The path to reform

### Chronology

Initial proposals were published in February 2001.

Industry comments were received by March 2001.

Ofgem’s proposals will need to be discussed with shippers, producers and other interested parties.

Ofgem believes that its proposals could be implemented in stages from October 2002 to October 2003.

Transco has proposed Network Code modifications to address the concerns about the current gas balancing regime in the interim period.

Ofgem recognises the concerns expressed by some respondents to its proposals, particularly about the costs of moving to shorter balancing periods.

### Costs

However, at no time since these reforms were first announced have any detailed cost analysis for these reforms – nor alternative proposals – been put forward by any one in the industry.

Nevertheless, Ofgem’s further proposals take account of the concerns about costs by proposing that flows at entry and exit points shared between shippers could be ‘deemed’ rather than metered for calculating imbalances. New meters will only be installed where it is more economic for shippers to meter their flows than share imbalance risks.

This means that if shippers share an entry or offtake point with other shippers they may wish to install new metering to measure their own flows, but it is not required.

There will be some transitional costs for changes to IT systems. Ofgem’s final proposals for Transco’s System Operator incentives includes provision for IT and related costs to implement changes to the gas balancing regime.

## The problem

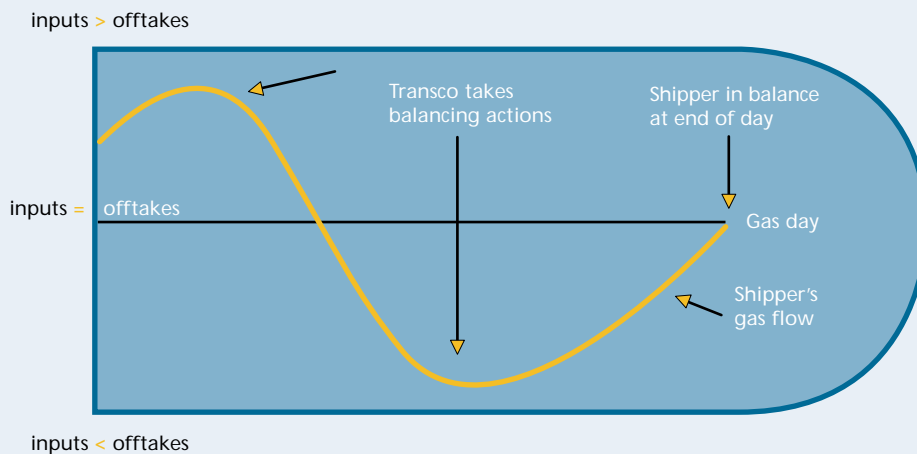
Since summer 2000, Transco has reported to Ofgem increasing examples of some shippers putting insufficient gas on to the system at the start of the day. This results in Transco having to buy gas to keep the system in balance, which increases the spot (on-the-day) gas price.

Towards the end of the day, more gas than is needed is then flowed on to the system. This results in Transco having to sell gas to balance the system, which reduces the spot gas price, so that Transco makes a loss on its trading over the day.

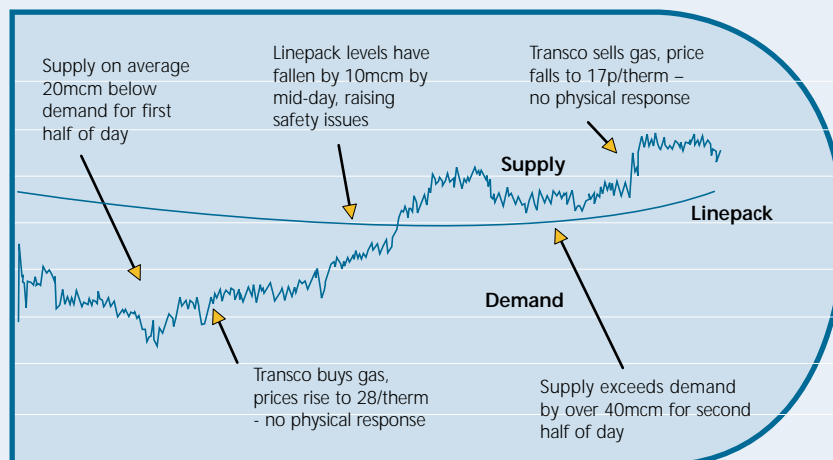
On many days, Transco also has difficulties balancing the system because of the poor quality of information it receives about intended flows on the NTS.

While the costs of these balancing actions are passed back to shippers, they are, however, spread across all shippers. This means that the full costs of these actions are not targeted at the shippers who caused them, resulting in certain shippers benefiting financially from these actions.

### Key issue - within-day cost targeting



### Example of within-day profiling



## Reasons for reform

Ofgem is concerned that if the current arrangements are not reformed, Transco will continue to be unable to efficiently balance the system and, in some circumstances, security of supply may be threatened.

If Transco has to interrupt gas fired power stations to maintain the safe operation of the gas system, this may cause NGC difficulties in safely and efficiently managing the electricity system.

Ofgem believes that developments in the gas and electricity markets will make it increasingly difficult for Transco and NGC to safely and efficiently manage their systems. These developments include:

- increased interactions between gas and electricity markets which will lead to more fluctuations in power station generation levels as they react to gas and electricity price changes
- interactions between GB, continental European and Irish gas markets, leading to more fluctuations in flows through the European and the Ireland interconnectors.

Ofgem does not believe that reforms to the existing regime requiring shippers to balance over each day can effectively address Transco's problems.

The 'reasonable endeavours' obligation on shippers cannot be sensibly interpreted or practically enforced. Ofgem is also unsure that such an obligation is appropriate given the characteristics of Transco's system, and supply and demand flow variations.

## The outcomes of reform

- Improved commercial incentives for shippers to balance the gas that they put on, and take off, the system throughout the day.
- Expose shippers to the full costs of any behaviour which forces Transco to take action to balance the system.
- Provide Transco with reliable, accurate information about what gas is being put on, and taken off, the system, allowing it to balance the system more efficiently.

These changes will improve security of supply and increase competition in the wholesale gas market – and, therefore, better protect customers' interests.

### Ofgem's framework for reform

#### 1. Shorter balancing periods

Balancing periods of less than 24 hours should be introduced to improve the incentives on shippers to balance throughout the day and replace the current 'reasonable endeavours' obligation.

Ofgem believes that shorter balancing periods enable Transco to manage supply and demand flow variations more effectively. This will improve security of supply by better targeting the costs of being out of balance within-day on shippers.

#### 2. Sale of system linepack

'Linepack' is the term for gas storage within the pipeline. Enabling shippers to buy linepack will allow them to manage supply and demand flow variations across the shorter balancing periods.

#### 3. Improving information to Transco

To consider how to give shippers the right incentives to provide more accurate and reliable information about the gas they put on, and take off, the system. This will help Transco assess the need to take balancing actions.

### Ofgem's model

Ofgem has proposed a model to implement this framework with the following main elements:

- a balancing period shorter than one day of, for example, six hours
- the sale of system linepack to shippers
- an onus on shippers to tell Transco how much they intend to deliver at any particular time. The difference between this and how much they take off the system will determine how much they are in imbalance, and how much they will be charged
- if shippers are in imbalance but do not cause Transco to take balancing action, they will face no costs. However, if Transco has to take balancing action, shippers will be charged accordingly.

**For more information on these proposals contact**  
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