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24 August 2001

Transco, Shippers and Other Interested Parties

Our Ref: Net/Cod/Mod/488

Dear Colleague,

Modification Proposal 0488 'Redesign of Capacity Incentive Regime'

Ofgem has carefully considered the issues raised in Modification Proposal 0488 '*Redesign of Capacity Incentive Regime'*. Ofgem has decided to direct Transco to implement the modification because we believe that this proposal will better facilitate the relevant objectives of Transco's Network Code.

In this letter, we explain the background to the modification proposal and give the reasons for making our decision.

Background to the proposal

In September 1999, Transco conducted the first auctions for the sale of Monthly System Entry Capacity (MSEC) to the National Transmission System (NTS). The monthly auctions provided for the allocation of firm entry capacity to successful bidders for a period of six months (October 1999 to March 2000). Further MSEC auctions were held in March 2000, August 2000 and February 2001.

In addition to holding monthly auctions, Transco makes firm and interruptible capacity available on a daily basis where there is additional capacity physically available. A within-day capacity market became operational on 1 June 2000. In order to encourage Transco to make all capacity available to market and manage constraints in an efficient manner, an incentive regime was put in place on 1 October 1999. Under this regime, Transco retained 20% of any additional revenue associated with the sale of daily firm and interruptible capacity. Conversely, Transco was liable for 20% of the costs of buying back capacity in the

event of a constraint. Transco's gains and losses under the scheme are capped at £5m and divided into equal monthly caps.[1]
The incentive arrangements were set on the basis of the risks/rewards associated with using the Seasonal Normal Demand (SND) methodology to determine the proportion of available capacity to be released in the monthly auctions. As the SND methodology attempted to determine likely capacity availability under seasonal normal temperatures, the incentive was constructed around a zero mean, with the likely value of daily capacity sales being offset by the likely value of buying back capacity in the event of a constraint. In the first year of its incentive scheme, Transco's net reward was approximately £3.2 million. In the second year, including information from 1 October 2000 to 30 June 2001, Transco has lost approximately £235,000.

With the implementation of Modification 0380 *'Increased availability of monthly entry capacity'* in March 2000, Transco made an additional 10% of capacity available in the monthly auctions. Due to concerns that the increase in capacity would reduce Transco's daily revenue potential and that the probability of buy-backs could be higher, the incentive regime was revised for the period April to September 2000. This revision was undertaken through Modification 0382 *'Revision of Capacity Incentive Arrangements'.* This provided that any reduction in incentive revenue would be offset by a monthly uplift to Transco. The value of the uplift was linked to the revenue from the sales of the additional 10% of monthly capacity. In accepting the revision, Ofgem recognised the importance of ensuring that the incentive regime was not effectively changed (with the benefits of hindsight) mid way through an agreed incentive period. Ofgem indicated that it was reasonable to expect that Transco's release of 10% additional monthly capacity would materially change the balance of risk and reward under the incentive regime. It would effectively transfer revenue that would have accrued to Transco from daily sales in to transportation revenue outside of the incentive arrangements.

Ofgem therefore approved the modification as it sought to leave the existing incentive mechanism 'whole' by ensuring that Transco continued to receive 20% of the revenue associated with these capacity sales as if the capacity had been sold in the daily markets.

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[1] Under the capacity regime, holders of MSEC capacity across all terminals bear 80% of the costs of capacity buy-backs in proportion to their holdings of capacity. Conversely, holders of MSEC at individual Aggregate System Entry Points (ASEPs) receive 80% of the revenues associated with sales of daily capacity at these individual ASEPs. When Transco's cap is reached, MSEC capacity holders bear (receive) 100% of the buy-back costs (revenue from daily sales).

In its July 2000 review of the New Gas Trading Arrangements[2], Ofgem undertook a review of Transco's capacity incentive. We found that the incentive scheme showed a positive bias during the first six months of its operation. At that time, Ofgem stated that it would welcome a discussion of potential changes to the capacity regime to address this bias.

The provision of Modification 0382 ceased to have effect from September 2000 as a consequence of the implementation of Modification 0417 *'Revision to the capacity incentive'*. In making its decision, Ofgem indicated that the revision of the incentive regime introduced through Modification 0382 was intended only as a temporary mechanism. Ofgem also encouraged industry participants to initiate a discussion on the key parameters of the incentive regime, including caps and collars and sharing factors. In this respect, Ofgem considered that Transco should be exposed to a higher proportion of daily revenue and costs to sharpen its incentives and remove some of the potential impacts of the smear back of daily revenue and costs on shippers' bidding behaviour in the auctions.

In October 2000, Transco experienced severe capacity constraints on the NTS, mainly at the St. Fergus terminal, due to demand being below its expected level. As a consequence, Transco was forced to buy-back significant levels of capacity often at very high prices, reaching total buy-back costs of £8.5 million by the end of the month. As a result, Transco reached its £416,000 monthly cap for buy-backs for the month of October and all of the remaining costs were smeared back to shippers on t he basis of their MSEC holding.

On 2 October 2000, British Gas Trading raised modification 0430 *'Removal of monthly incentive limit amount'*, which provided for the removal of the monthly cap and collar. Following Ofgem's rejection of urgency, the proposal was withdrawn. In January 2001, British Gas Trading raised an analogous proposal with modification 0452 *'Removal of monthly capacity incentive limit amounts'*. This modification proposed to remove the monthly caps and collars in order to strengthen the commercial incentives on Transco to minimise the costs of managing capacity constraints and maximise volumes of capacity made available at the day-ahead stage. Ofgem rejected this modification proposal, as we believed that the removal of the monthly limits without a simultaneous increase in the annual cap and collar could have led to a severe weakening of the capacity incentive if Transco were to prematurely reach its annual limits. Ofgem also noted that it was not, as a matter of general regulatory principles, in favour of changing incentive arrangements within period unless there were exceptional circumstances.

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[2] *'The New Gas Trading Arrangements. A review of the new arrangements and further development of the regime. A review and decision document'*, Ofgem, July 2000.

Following the September 1999 entry capacity auction a number of modifications to the auction regime were proposed to address issues that were unresolved prior to the introduction of the auctions in October 1999. One of the main areas of concern was that the existing allocation methodology resulted in too little capacity being released in the monthly auctions relative to the physical capabilities of the NTS. Under the entry capacity regime, MSEC quantities were determined through the application of the SND methodology. This methodology used historic terminal gas flow data to determine the amount of capacity to be made available at each terminal and did not take account of gas market developments such as new fields, or changes to existing fields' profiles and to gas sales contracts.

Ofgem recognised prior to the introduction of the auctions that the SND methodology was flawed and should only be adopted as an interim measure for the determination of MSEC volumes. This position was clearly stated in our September 1999 decision document[3]. Since October 1999, a number of modifications to the Network Code have been proposed to address this issue. Most recently, Conoco UK Ltd raised modification 0481 '*Release of ASEP Maximum System Entry Capacity Volumes for MSEC Auction*', which provided for a significant increase in the volumes of capacity released in the MSEC auction. Specifically, this modification proposed that the release of MSEC quantities for each ASEP for each month be equivalent to the highest of the monthly ASEP Maximum System Entry Capacities. In accepting this modification on 9 August 2001, Ofgem restated its preference for a capacity release that is linked to the maximum physical capacity available (or a proportion thereof) at each terminal with Transco buying back capacity in the event of a constraint. In particular, Ofgem considered that a maximum physical capacity approach is the most simple and transparent method of releasing capacity and reduces any Transco discretion in determining how much capacity to release. Ofgem also considered that such an approach removes the existing reliance on historical data and the possibility that a historically based methodology could artificially restrict the amount of capacity being released to market. It also removes the possibility that scarce capacity is allocated to terminals not on the basis of price but on the basis of an artificial allocation mechanism.

Ofgem also recognised that modification proposal 0481 may change the balance of risk and reward under the current capacity incentive regime and, therefore, believed that an adjustment to Transco's capacity incentive may be appropriate.

The modification proposal

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[3] '*The New Gas Trading Arrangements: A decision document*', Ofgem, September 1999

This modification proposal provides for the current capacity incentive to be disabled, with 100% of the capacity buy-back costs and 100% of the incremental sales revenue accruing to shippers via the current capacity neutrality arrangements.

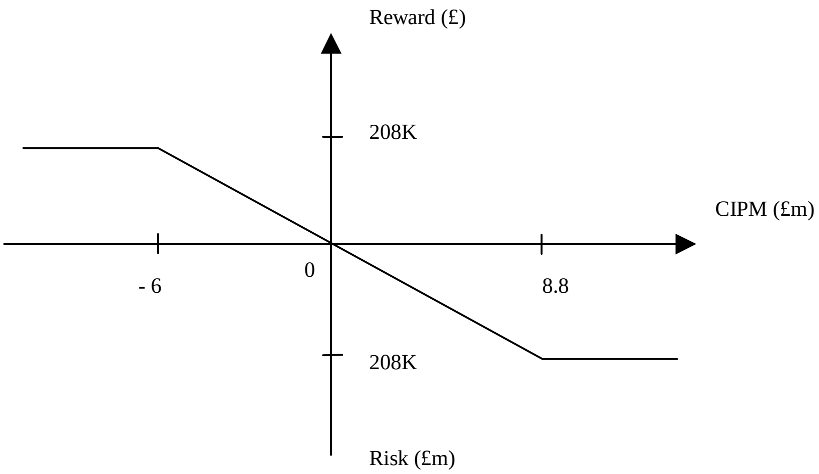
The modification further proposes the introduction of a new incentive under which Transco's Capacity Incentive Performance Measure (CIPM) would be based on the magnitude of the net cost (revenue) of actual costs of capacity buy-backs and incremental sales revenue for a month compared to a target level of costs agreed in advance. Where CIPM is equal to zero (i.e. actual costs are equal to forecast) Transco will face no reward or penalty. Under the incentive Transco obtains rewards (penalties) when actual costs are lower (higher) than the forecast. It is also proposed that Transco's maximum caps and collars be halved, leading to monthly limits of +/- £208,000 per month.

As Transco's analysis indicates a 90% confidence interval for forecast cost of £24 to £113m over the forthcoming six-month capacity period[4], it is proposed that the monthly cap and collar would be set as one six of the lower and upper end of this range respectively. Transco's share of any cost or reward would be calculated based on a linear interpolation from the mid-point (£10m per month) to the cap or collar respectively (see graph below).

Under this proposal, costs and revenues will be apportioned to shippers on the basis of the sum of each shippers MSEC capacity holdings across all ASEPs for that month, divided by the sum of all MSEC capacity holdings for all Users across all ASEPs for that month.

It is intended for this revision to the capacity incentive to cover the period 1 October 2001 to 30 March 2002.

[4] Based on Transco's analysis of buy-back costs and incremental sales, for the expected CIPM to equal zero, forecast costs should be set at £10m per month over the six month period commencing on 1 October 2001.



Performance measure = Actual Cost - Forecast Cost

Respondents' views

All 13 respondents opposed this modification proposal, although some of these respondents recognised that the new regime established with Modification 0481 could place a greater emphasis on Transco's risk under the capacity incentive. A clear majority complained that there is not enough time to carry out a thorough review of Transco's capacity incentive before the commencement of the winter capacity auctions and that the current proposal needs further clarification from Transco. In this respect, several respondents noted that Transco's estimation of potential costs and revenues are not transparent and use information not readily available to the industry.

A number of respondents also expressed concerns that another change to the parameters on which shippers value capacity could be implemented, as the proposal is too close to the first winter auction round. Some remarked that shippers are currently forming their bidding strategies incorporating the existing parameters: as the proposal would imply a major change in the regime its compressed timeframe is unacceptable. One shipper remarked that, since the start of the NGTA, the current process of modification to the Network Code has been creating further uncertainty about the nature of the regime just before the auctions were due to start.

One of these respondents also stated that the design of the incentive scheme should be determined only after all the other auction's parameters have been fixed. Without knowing the outcome of Pricing Consultations 65 and 66 and of modifications 0486 and 0488, it is not possible to decide on the appropriateness of any incentive regime. Two respondents also remarked that the industry has been waiting for the outcome of Ofgem's capacity investigation, as shippers needs to value their ability to sell capacity back to Transco before understanding the actual risk to Transco of potential buy-back costs.

Two shippers proposed to suspend the existing incentive mechanism pending further industry discussions regarding the most appropriate incentive scheme or simply reduce Transco's monthly revenue exposure as an interim measure until April 2002. Another stated that the most appropriate way to address the issue of buy-back cost is via the alternative method of funding entry capacity constraints as put forward in PC 65.

A couple of respondents stated that with the removal of any incentive other than to accurately predict buy-back costs, the intent of the current regime to encourage Transco to manage constraints efficiently would be significantly impaired. Another argued that under the proposed incentive scheme Transco would not be encouraged to minimise the actual costs of buy-back, but would simply have an incentive to reach its forecasts.

Several respondents criticised the forecast figures of buy-back costs provided by Transco, also noting that Transco has an incentive to over-estimate buy-back costs. A number of respondents argued that Transco's estimates were flawed and unreasonably high. In general, respondents expressed concerns about the reliability of Transco's forecast of buy-back costs and suggested that they should be independently verified or agreed by the industry.

Some of these respondents agreed that the new arrangements put in place with Modification 0481 potentially increase the risk of buy-backs. However, they did not believe that this would imply higher costs. In this respect, they stated that the larger volumes of capacity released under the new regime should create more surplus capacity, thus encouraging shippers to sell their spare capacity on the capacity buy-back and secondary markets. As a result of more trading and Transco's ability to buy-back capacity at cheaper terminals to relieve constraints elsewhere, prices for capacity should reach reasonable levels. At the same time, surplus capacity should also generate more revenue for Transco via the use-it-or-lose it provisions. Two of these respondents also remarked that there is a potential for capacity to be left unsold, thus providing Transco with capacity that may be offered on a daily basis.

Some respondents questioned the use of the same forecast value of £10m for all months, indicating that it is unlikely that costs will remain the same across months. For this reason, an incentive profiled on a monthly basis would be more appropriate. Another respondent criticised the fact that the derived values seemed to be based on expected firm monthly capacity sold and an estimation of the buy-back costs for which there is only one year's worth of data and under a different regime.

One respondent stated that the monthly caps and collars should not be reduced, as this is inconsistent with Ofgem's position on placing increase capacity incentives on Transco in the future.

Two respondents stated that the proposal simply place more risk on shippers without dealing adequately with the proper allocation of buy-back costs. Others argued that the proposal does not address the fact that the current arrangements introduce distortions to the valuation of monthly capacity across constrained and unconstrained terminals, as buy-back costs would be still passed through on a non-ASEP specific basis.

One respondents indicated that the incentive parameters should be included in the Licence and not in the Network Code to prevent perverse situations of Transco suggesting its own incentive's parameters.

Transco's revised proposal

Following representation received in response to Modification 0488, Transco has amended its final Modification Proposal, effectively increasing its share of any costs or rewards compared with the intial proposal. Transco's revised Modification proposes to retain the existing maximum potential risk and reward of +/- £416,000 per month. In addition, Transco proposes that its revised incetive should be consistent with the 80% confidence interval which it estimates at £30 million to £100 million, rather than the 90% interval originally proposed. Hence the monthly cap and collar will be one sixth of the lower (£5 million) and upper (£16.7 million) ends of this range respectively.

Ofgem's View

Ofgem has carefully considered the issues raised by the respondents regarding the implementation of this modification proposal.

As mentioned in our decision letter for Modifications 0477, 0480, 0481 and 0483, we recognise that the new arrangements introduced by modification 0481 may change the balance of risk and reward under the current capacity incentive regime. Therefore, we consider that an adjustment to Transco's capacity incentive may be appropriate.

Ofgem continues to support a ‘deeper’ financial incentive under which Transco faces greater exposure to the costs of buy backs and higher sharing factors and caps and collars. However, Ofgem must assess Transco’s revised proposal against a test of whether it better facilitates the relevant objectives of Transco’s Network Code.

Ofgem will, as part of its proposals for new incentive arrangements for Transco’s System Operator function, be seeking to introduce ‘deeper’ financial incentives with potentially greater exposure and reward (for outperforming against its incentive targets). Subject to Transco’s consent, these new incentive arrangements should be in place from April 2002.

Ofgem supports the form of incentive proposed by Transco. We believe that an approach based on a target level of buy back costs is appropriate given the overall changes to the regime and the release of more capacity in the monthly auctions. Ofgem accepts that this will increase the probability of buy back actions compared with the old approach based on an SND profile.

Ofgem is sympathetic to the arguments raised by many respondents about the time they have been given to consider these amendments and also about the difficulty of assessing the basis on which Transco has modelled the risks and rewards. Ofgem is satisfied, having reviewed Transco’s model and its underlying assumptions that Transco’s forecasts appear reasonable, given uncertainty around the volume and prices of any buy backs.

Ofgem does not accept the comment made by some respondents about the relationship between changes to the regime and the outcome of Ofgem’s capacity investigation. Ofgem has already issued guidance to shippers on their conduct in the buy back market.

Ofgem accepts that Transco has gone some way to meet the concerns of respondents in framing its revised proposal by maintaining the existing caps and collars and increasing its potential exposure to buy back costs. Ofgem continues to believe that an incentive scheme with higher effective sharing factors and no monthly caps and collars (i.e. just an annual cap and collar) would have better incentive properties than Transco’s revised proposal.

However, against a test of whether the revised proposal better facilitates the relevant objectives of Transco’s Network Code, Ofgem is satisfied that the revised proposal will better facilitate the economic and efficient operation of the pipeline system. Given the changes to the amount of capacity released in the monthly auctions and the associated change in the probability of incremental sales and buy backs, we believe that the proposal will provide Transco with a better incentive to manage the costs of nay constraints and associated buy back costs.

Ofgem's Decision

Accordingly, Ofgem has directed Transco to implement this modification, as we do believe that it better facilitates the achievement of the relevant objectives as outlined under Standard Condition 7 of Transco's Gas Transporter's licence.

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

Yours sincerely

Steve Smith
Director, Trading Arrangements