PRICING CONSULTATION PAPER PC 51

Determination of Daily System Entry Capacity Floor Prices

Summary

This consultation paper proposes a change to the calculation of floor prices for Daily System Entry Capacity. The proposal is intended to strike an appropriate balance between monthly and daily capacity floor prices. When the present floor prices were set, it was intended that they should provide an incentive for shippers to book Monthly System Entry Capacity. Transco believes that this was achieved.

An additional consideration for the future is the potential impact of Network Code Modification Proposals 0365 and 0371. Modification Proposal 0365 contemplates the introduction of a within day capacity mechanism which may be effective from 1 April 2000. Transco has argued that creating an effective within day capacity market would require the removal of the majority of daily interruptible capacity for sale at D-1. If this were to be accepted, and the calculation of floor prices was not changed, the aggregate costs of daily entry capacity would be likely to increase. Transco estimates that a reduction in the daily firm entry capacity floor price multiplier to 1.25 would maintain costs at the levels presently anticipated.

Modification Proposal 0371 contemplates a variable profile auction of Monthly System Entry Capacity, potentially effective from 1 April 2000. If implemented, the improved allocation of Monthly System Entry Capacity could reduce some shipper requirements for daily capacity. The anticipated impact upon entry costs is consequently to reduce entry capacity costs from the levels presently anticipated.

In recognition of these effects, and the desire to retain an incentive for shippers to book Monthly System Entry Capacity, it is proposed that the floor price multiplier for Daily System Entry Capacity should be amended from 1.5 to 1.25 times the weighted average of the top 50% (by volume) of all accepted bids in the relevant auction of monthly capacity.

Determination of Daily System Entry Capacity Floor Prices

1. Introduction

Network Code Modification 0365 contemplates the introduction of a within day capacity mechanism which may be effective from 1 April 2000. It is anticipated that, were the proposal to be implemented, all capacity sold within day would be on a firm basis and may be bid for as requirements change through the day. Transco has argued that the development of such a service would remove the need for daily Interruptible System Entry Capacity (ISEC). ISEC is presently offered in part as a means of reducing potential exposure to within day changes, which shippers would not be able to ameliorate if Transco were to sell only firm monthly and daily system entry capacity. At present it would appear that shippers purchase large quantities of interruptible capacity to, in effect, use as an insurance service. In practice approximately 3% has been used to flow gas in the period October to December 1999. The creation of a within day capacity mechanism may remove the need for shippers to book such large quantities of interruptible capacity, since they would be able to follow a more dynamic process and tailor their capacity bookings to match more closely their gas flow requirements. This suggests that shippers may only need to convert a quantity of previously held interruptible capacity into firm within day capacity that matches the gas formerly flowed against interruptible capacity. If there were no change to the present floor prices for Daily System Entry Capacity (DSEC), there may therefore be a windfall to income counted towards the capacity incentive mechanism if a proportion of interruptible booking is converted to firm.

In addition to the potential impact of introducing within day capacity, Network Code Modification Proposal 0371 contemplates a number of potential changes to the design of Monthly System Entry Capacity (MSEC) auctions. These are intended to enable entry profiles of MSEC at each Aggregate System Entry Point (ASEP) to be determined, in part, by shippers through a market mechanism. In effect, additional capacity may be allocated to the locations at which it is valued most highly. It is thought that the Modification Proposal 0371 would, if implemented, tend to reduce in aggregate shipper requirements for daily and within day capacity.

2. Background

From October 1999 the entry capacity regime for Transco's transportation system was amended to discontinue annual entry capacity charges and replace them with auctions of Monthly System Entry Capacity. MSEC provides a firm capacity right for a determined quantity of entry capacity at each ASEP. The allocation of quantities to each ASEP is based on an analysis of historical profiles and consequent distribution of Seasonal Normal Demand (SND) between each ASEP. All income from sales of MSEC contributes to Transco's transportation income. The maximum permissible transportation income is controlled by Special Condition 9C (the price control formula) of BG Transco's Public Gas Transporter Licence. Any deviation from predicted formula income may be corrected in the following year through the correction factor (K).

Daily System Entry Capacity and Interruptible System Entry Capacity continued to be offered after 1 October 1999. However, from 1 October 1999 income from both forms of daily system entry capacity is deemed to contribute to Transco's capacity incentive mechanism. The mechanism required an amendment to Transco's PGT licence to allow a maximum £5m income variation from entry capacity services not covered by the price control formula. 20%

of all income from daily entry capacity services contribute to Transco's incentive mechanism. The remaining 80% of income from daily capacity services is passed to holders of MSEC in proportion to their holdings for the relevant month. The liabilities in the capacity incentive mechanism concern the requirement to buy back those quantities of firm entry capacity that Transco has sold but may be unable to deliver on a day. The price of buy back is set by shipper valuations. 20% of any costs incurred for buy back are counted towards Transco's capacity incentive mechanism, with the remaining 80% funded by holders of MSEC capacity on a pro rata basis.

The establishment of separate monitoring mechanisms for MSEC and daily capacity suggests that the distribution of entry capacity booking between MSEC and daily capacity will impact upon income totals accrued for measurement against the price control formula and the capacity incentive mechanism. It is possible that daily capacity floor prices could be set at a low level that encourages shippers in aggregate to opt for a greater level of daily capacity booking whilst reducing their holdings of MSEC. The outcome of such a policy would be to reduce income that is within the price control formula. Any such variations may then be corrected through operation of the error correction factor. In effect other charges for transportation services could rise to compensate for the under recovery. At the same time increased levels of daily capacity booking would inflate income counted towards the capacity incentive mechanism. In order to mitigate against this outcome floor prices for DSEC have been set at 1.5 times the weighted average of the top 50% of all accepted bids in the relevant month of MSEC auctions, a level thought to be sufficient to maintain MSEC as the primary choice service. Floor prices for ISEC are set at 0.1 times the weighted average of the top 50% of all accepted bids in the relevant month of MSEC auctions.

3. Proposal

It is proposed that if a within day capacity market is introduced, the DSEC floor price multiplier should at the same time be changed from 1.5 to 1.25 for all ASEPs that have an allocation of Monthly System Entry Capacity. Hence floor prices for daily System Entry Capacity would be 1.25 times the weighted average of the top 50% of accepted bids at that ASEP in the month of use.

The proposal is made such that incentives are maintained for MSEC to remain the primary source of entry capacity, while it is believed that a reduction in the floor price multiplier will better facilitate the efficient clearing of daily and within day capacity auctions. In addition the proposed methodology change will enable Transco to take account of developments in the transportation business as required in Standard Condition 4c of its Public Gas Transporter Licence.

4. Analysis

If there were a significant reduction in the quantities of interruptible capacity being made available at present, shippers may seek to book increased quantities of firm capacity in order to ensure they hold sufficient booked capacity to meet their potential demand. However, it is unlikely that the quantities of additional firm capacity that is required would be of the same magnitude as the present levels of booked interruptible capacity. The daily firm capacity released in October and November was sufficient to satisfy all Allocations at Bacton and Easington. Barrow, St. Fergus Teesside and Theddlethorpe had a shortfall of daily firm capacity released when compared with allocations. Theddlethorpe had the largest shortfall, where 13% of all capacity (firm and interruptible) was required to satisfy allocations on an interruptible basis. Table 1 below indicates the trends in capacity booking and allocations. It also provides an indication of the amount of interruptible capacity that is actually used to match gas flows. The table is based on activity for October and November 1999 and all results are expressed as a percentage of total booked capacity at each ASEP.

Table 1.

Capacity Utilisation

	All Firm (MSEC + DSEC)	ISEC	Allocation	Interruption Used
Bacton	72%	28%	67%	0%
Barrow	73%	27%	79%	5%
Easington	53%	47%	47%	0%
St Fergus	82%	18%	84%	2%
Teesside	67%	33%	68%	1%
Theddlethorpe	57%	43%	70%	13%

A continuing provision of use it or lose it capacity may satisfy some of the present demand for interruptible system entry capacity. However, if it is assumed that shippers would seek to book additional firm capacity to the levels indicated in the table above, the increase in revenue from daily services could be perceived as a windfall accruing, through the capacity incentive scheme, to Transco and holders of MSEC. Based on the table above, if the quantity of ISEC made available is greatly reduced, the majority of the additional firm capacity will be required at Theddlethorpe and Barrow. The analysis suggests that St. Fergus would not be expected to be subject to greatly increased booking of DSEC.

An increased level of daily firm capacity booking in line with the analysis above suggests an increased income flowing through to the capacity incentive mechanism. Based on the two month period October to November 1999, and extrapolating the increased booking of daily firm capacity over a 12 month period, then the capacity incentive mechanism could generate an extra £1.3m for Transco and £5.4m for holders of MSEC. Removal of this potential benefit could be achieved by reducing the floor price multiplier in DSEC auctions to 1.25 This calculation assumes an efficiently traded secondary market which, combined with the proposed within day capacity market, would enable a reduction in net firm capacity released at Bacton and Easington in addition to the removal of large quantities of ISEC.

Set against the potential windfall driven by implementation of a within day capacity regime, it is anticipated that the proposed introduction of a variable profile auction could reduce income from sales of daily firm capacity. A variable profile auction has been proposed for implementation in the next round of MSEC auctions and is the subject of Network Code Modification Proposal 0371.

The auctions of Monthly System Entry Capacity held in September 1999 for capacity in October 1999 through to March 2000 were four times oversubscribed. All capacity offered was sold except for a small quantity at Theddlethorpe and larger quantities at Barrow. The unsold quantity at Theddlethorpe was smaller than the minimum bid size of 100,000 kWh. The unsold quantities at Barrow were more significant, although Table 1 above suggests that some of the unutilised MSEC has been replaced by cheaper interruptible capacity. The variable profile auction proposed in Network Code Modification 0371 would allow those unsold quantities to be redistributed to other entry points where demand was not be satisfied.

5. Market Impact

It is not clear how changing the floor price applicable to daily capacity auctions might potentially impact upon differing customer groups. Any such calculation is dependent upon shipper strategies for bidding in both monthly and daily auctions, and the prices paid.

It is probable that if floor prices remain unchanged, and the quantities of ISEC made available are reduced significantly alongside implementation Network Code Modification 0365, then, after taking into account the redistribution of income to shippers from the capacity incentive mechanism, net costs of entry capacity could increase by £1.3m . That increase in entry capacity costs could be removed by reducing the floor price multiplier to 1.25.

If Network Code Modification 0371 is approved in addition to the proposal for a within day capacity mechanism, then costs of daily entry capacity may be expected to fall below the present level. However, any such effect could be offset if the price paid were also amended from the clearing price to a pay as bid approach. For the purposes of this proposal, it is assumed that the net impact of these effects will not be significant.

6. Conclusion

Income accrued from any auction is difficult to predict given the uncertainty of average prices resulting from accepted bids. However, if one assumes that the cleared price is the floor price, then a series of projections could be made. If a within day capacity mechanism only is introduced in April 2000 and the floor price remains unchanged, then it can be assumed that the costs of buying daily entry capacity will increase by approximately £1.3m If the proposed variable capacity auction for monthly capacity is approved and an adjusted floor price multiplier of 1.25 is introduced then the costs of entry capacity may fall.

Transco is of the opinion that despite the possible reduction in income from the capacity incentive scheme if Network Code Modification Proposals 0365 and 0371 are both implemented, it would be appropriate to reduce the DSEC floor price multiplier from 1.5 to 1.25 An incremental reduction may be justifiable because the previous multiplier has proven successful in its purpose of maintaining incentives to bid for Monthly System Entry Capacity.

7. QUESTION FOR CONSULTATION

Transco invites respondent's views on the following, to be applicable from implementation of Modification Proposal 0365:

At ASEPs where an allocation of Monthly System Entry Capacity has been made in the relevant auction of monthly capacity. Auctions of Daily System Entry Capacity should have a floor price of 1.25 times the weighted average (by volume) of the top 50% of all accepted bids in the relevant monthly auction.