Gas TCMF

NTS Charging Methodology: Exit Capacity Clarification

Background

The NTS Exit incentive arrangements will lead to increased SO (maximum) allowed revenue associated with Langage, Marchwood and expansion in the South West quadrant of the NTS. The Licence states that exit capacity revenue associated with the sale of NTS exit capacity other than baseline capacity (i.e. incremental exit capacity) will be treated as SO revenue. SO allowed revenue, other than incremental entry capacity revenue would normally be collected from the SO commodity charge which is applied to both entry and exit flows.

The NTS charging methodology states that….. "Of the NTS TO target revenue, 50% is assumed to be derived from non incremental obligated entry capacity sales, determined through auctions subject to reserve prices. Exit capacity charges are applied on an administered peak day basis, and are set so as to recover the other 50% of the TO target revenue level when they are applied to the Baseline firm and interruptible exit capacity levels." . We believe that this is consistent with incremental exit capacity being treated as SO revenue under the Licence.

NTS Exit Baseline capacity charges should be set such that target exit capacity revenue equals 50% of TO allowed revenue less DN pensions charge revenue plus SO Exit capacity revenue.

We believe that the charging methodology is consistent with the treatment of incremental exit capacity revenue as SO revenue however we believe that there is a clarification within the calculation description that should be made. Suggested changes to the NTS Charging Methodology Statement text follows. Going forward we intend to include these clarifications in the 1st April 2008 release of the charging methodology.

This document is provided to give early sight of the changes and feedback is welcomed. Please send any feedback to eddie.j.blackburn@uk.ngrid.com or debra.a.hawkin@uk.ngrid.com

Current Wording

Revenue Recovery Adjustment

The total revenue to be recovered through Exit Capacity Charges is determined each year with reference to the Price Control formulae stated in the Licence. Hence in any given year t, a target revenue figure for Firm Exit Capacity Charges (TOExRF$_t$) is set. An adjustment is made to compensate for any under or over recovery from the previous year. For further information, please refer to Special Condition C8B and C8E of the Licence.

A single additive constant Revenue Adjustment Factor (RAF) is calculated using Microsoft Excel Solver which, when added to the Initial Nodal Marginal Distance at each demand, gives a revised marginal distance for each demand, such that the total revenue to be recovered from exit charges equals the target revenue. The calculation simultaneously removes the negative marginal distances by collaring the revenue to that level implied by the minimum price of 0.0001 p/kWh.

$$\sum_{Dj=1}^{n_D} \left(ExitRev_{t,Dj} \right) = TOExRF_t$$

$$ExitRev_{t,Dj} = Max\left[\frac{(0.0001/100) \times ExitCap_{Dj} \times 365}{10^6}, \left(InitialNMkm_{Dj} + RAF \right) \times ExitCap_{Dj} \times AnF \times EC \right]$$

Where

$ExitRev_{t,Dj}$	=	Exit capacity revenue from demand j (£m/year)
$TOExRF_t$	=	TO Exit firm allowed revenue for year t (£m)
$InitialNMkm_{Dj}$	=	Initial nodal marginal distance for demand j (km)
RAF	=	Revenue adjustment factor (km)
$ExitCap_{Dj}$	=	Nodal forecast daily exit capacity for demand j (GWh)
AnF	=	Licence annuitisation factor (-)
EC	=	Expansion constant (£/GWhkm)
0.0001	=	Minimum price (p/kWh)
365	=	Conversion factor from per day to per year
100	=	Conversion factor from p to £
10^6	=	Conversion factor from £ to £m

Proposed New Wording

Revenue Recovery Adjustment

The total revenue to be recovered through **Baseline Firm & Interruptible** Exit Capacity Charges is determined each year with reference to the Price Control formulae stated in the Licence. Hence in any given year t, a target revenue figure for Firm **Baseline** Exit Capacity Charges ($TOExRF_t$) is set. An adjustment is made to compensate for any under or over recovery from the previous year. For further information, please refer to Special Condition C8B and C8E of the Licence.

Revenue from Incremental Exit Capacity Charges is treated as SO revenue within the Price Control formulae stated in the Licence ($SOExRF_t$) For further information, please refer to Special Condition C8C of the Licence.

A single additive constant Revenue Adjustment Factor (RAF) is calculated using Microsoft Excel Solver which, when added to the Initial Nodal Marginal Distance at each demand, gives a revised marginal distance for each demand, such that the total revenue to be recovered from **Baseline Firm (TO)** exit charges equals the target revenue to be collected **(i.e. $TOExRF_t$)**. **All exit charges are calculated from this process and hence the Incremental SO revenue (i.e. $SOExRF_t$) can be calculated from the relevant prices.** The calculation simultaneously removes the negative marginal distances by collaring the revenue to that level implied by the minimum price of 0.0001 p/kWh.

$$ExitRev_{t,Dj} = Max\left[(0.0001/100) \times ExitCap_{Dj} \times 365, \frac{\left(InitialNMkm_{Dj} + RAF\right) \times ExitCap_{Dj} \times AnF \times EC}{10^6} \right]$$

$$ExitRev_{t,Dj,incremental} = Max\left[(0.0001/100) \times ExitCap_{Dj,incremental} \times 365, \frac{\left(InitialNMkm_{Dj} + RAF\right) \times ExitCap_{Dj} \times AnF \times EC}{10^6} \right]$$

$$\sum_{Dj=1}^{n_D}\left(ExitRev_{t,Dj}\right) - \sum_{Dj=1}^{n_D}\left(Exit\operatorname{Re}v_{t,Dj,incremental}\right) = TOExRF_t$$

$$SOExRF_t = \sum_{Dj=1}^{n_D}\left(ExitRev_{t,Dj,incremental}\right)$$

Where

$ExitRev_{t,Dj}$	=	*Exit capacity revenue from demand j (£m/year)*
$TOExRF_t$	=	*TO Exit firm allowed revenue for year t (£m)*
$SOExRF_t$	=	*SO Exit firm revenue for year t (£m)*
$InitialNMkm_{Dj}$	=	*Initial nodal marginal distance for demand j (km)*
RAF	=	*Revenue adjustment factor (km)*
$ExitCap_{Dj}$	=	*Nodal forecast daily exit capacity for demand j (GWh)*
AnF	=	*Licence annuitisation factor (-)*
EC	=	*Expansion constant (£/GWhkm)*
0.0001	=	*Minimum price (p/kWh)*
365	=	*Conversion factor from per day to per year*
100	=	*Conversion factor from p to £*
10^6	=	*Conversion factor from £ to £m*