

98/05/08/07

SHORT TITLE: Nationally Diversified Load Factors

DATE: 30TH APRIL 1998

PROPOSED IMPLEMENTATION DATE: As soon as possible, and to ensure necessary price changes are introduced from 1st October 1998

URGENCY: See comments above on proposed Implementation

AREA OF NETWORK CODE CONCERNED: H4.3.3

#### JUSTIFICATION:

- 1 The Network Code (section H4.3.3) lays down three "Nationally Diversified Load Factors" for non-daily-metered load, as follows:

0-2500 thms/yr (0-73.2 MWh/yr)	36%
2500-25000 thms/yr (73.2-732 MWh/yr)	39%
25000-75000 thms/yr (732-2196 MWh/yr)	43%

- 2 Whatever are the load factor estimates generated each year from load analyses, the results within the three load bands are scaled to give the three overall/average factors above.

- 3 The three factors date from before the Network Code -

"As regards charging for transportation and storage the important parameters are load factors, 1-in-20 peak day demands and the shapes of load duration curves. Table 1 gives load factors by load band for 1993/94, derived from Regional returns" [Load Research for Transportation & Storage Charging, British Gas, November 1993]

..... and Table 1 gives the 36%, 39% and 43% averages.

- 4 Since 1995 Transco have carried out fairly full analyses, based on datarecorder data for small loads and datalogger data for larger loads.
- 5 In June 1995 Transco reported "Indicative Crude Load Factors" as follows -

0-73.2 MWh/yr (0-2500 thms/yr)	37%
73.2-145 MWh/yr (2500-5000 thms/yr)	30%
145-293 MWh/yr (5000-10000 thms/yr)	28%
293-732 MWh/yr (10000-25000 thms/yr)	29%/40%
(29% based on 139 datarecorders	
and 40% based on 84 loggers - ave 33%)	
732-1465 MWh/yr (25000-50000 thms/yr)	36%
1465-2198 MWh/yr (50000-75000 thms/yr)	34%

This intimated that the 36% assumed for the 0-2500 thms/yr band might be too low, and that the 39% and 43% assumed for the 2500-25000 and 25000-75000 thms/yr bands were now almost certainly very much too high.

- 6 This has been supported by Transco's analyses in 1996 and 1997, which provided the following overall average load factors estimated for the three major groupings -

	1996	1997
0-2500 tpa	36.4%	36.5%
2500-25000 tpa	35.4%	32.7%
25000-75000 tpa	41.2%	35.6%

- 7 Hence the analyses carried out in each of the last three years have suggested that the 36% assumed for the 0-2500 thms/yr band is too low, and that the 39% and 43% assumed for the 2500-25000 and 25000-75000 thms/yr bands are now almost certainly very much too high.

#### CONSEQUENCE OF NOT MAKING THIS CHANGE:

- 8 This affects exit capacity charges for NDM customers. It means that domestic customers' charges are too high overall and that non-domestic charges are too low, and therefore there is a degree of cross-subsidy between the two sectors at the expense of domestic gas users.
- 9 British Gas Trading urges that this be addressed, in a timely manner to allow corrections to apply from 1st October 1998.
- 10 Three possible options are -
- a) - updating the nationally diversified load factors to more realistic values
  - b) - removal of the nationally diversified load factors, leaving each year's best estimates to stand unscaled, or
  - c) - some intermediate position
- 11 Whilst option a) above is the most logical, getting agreement on different realistic fixed values might be difficult, especially since it is unclear that any specific values can be argued to have particular merit.

Removing values altogether is a quicker solution, but might cause variances in pricing year on year causing concerns as to stability. However, British Gas Trading recommends this option, leaving each year's best estimates to stand unscaled as that offering an improvement yet achievable this year.

- 12 It is acknowledged that the removal of the Nationally Diversified Load Factors may lead to volatility, especially in the 25000-75000 thm/yr category, as can be seen from the estimates from the last three years. As an alternative, such volatility could be reduced by setting each year the three nationally diversified load factors to the average of the value used previously and the value estimated from the new analyses. If this had been in use from 1995/6 the values would have been as follows -

	0-2500	2500-25000	25000-75000
1995/6 Initial values	36%	39%	43%
Results from 1996 analyses	36.4%	35.4%	41.2%
Averages, used as 1996/7 values	36.2%	37.2%	42.1%
Results from 1997 analyses	36.5%	32.7%	35.6%

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Averages, used as 1997/8 values 36.3%      35.0%      38.9%

- 13 This would result in slightly more reflective NDM load factors for 1998/9, and hence slightly more reflective transportation charges and a more reflective gas allocation basis. However British Gas Trading recommends the simpler approach of total removal of the Nationally Diversified Load Factors.

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Proposer:

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Position:

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