

**Modification Report**  
**Removal of Nationally Diversified Load Factors in 2001**  
**Modification Reference Number 0407**  
Version 5.0

This Modification Report is made pursuant to Rule 7.3 of the Modification Rules and follows the format required under Rule 8.9.3.

## **1. The Modification Proposal**

The implementation of Modification Proposal 0236a provides for a progressive change over a three year period in the NDLF values set out in the Network Code as follows:

| <b>Consumption Range</b>              | <b>1999/00</b> | <b>2000/01</b> | <b>2001/02</b> |
|---------------------------------------|----------------|----------------|----------------|
| 0-2500 thms/yr (0-73.2 MWh/yr)        | 36.5 %         | 36.5%          | 36.5%          |
| 2500-25000 thms/yr (73.2-732 MWh/yr)  | 37.0 %         | 35%            | 34%            |
| 25000-75000 thms/yr (732-2196 MWh/yr) | 41.0 %         | 39%            | 37%            |

This modification proposal contemplates removal of NDLFs with effect from 1 October 2001. Subsequent to implementation the NDLF values that were originally intended to take effect would be replaced by the then current national average load factors derived from the Spring NDM demand estimation process. These unscaled national average load factors would be derived on an annual basis and take effect from October each year. It is anticipated that delaying the removal of NDLFs until 2001 should moderate any impact on transportation charges arising from the removal of NDLFs.

## **2. Transco's Opinion**

Transco believes that the Nationally Diversified Load Factor (NDLF) values stated in the Network Code (for the three consumption ranges to which NDLFs apply) do not reflect the most recent unscaled national average load factors arising from the annual NDM demand estimation process. In view of this, and the introduction of model-smoothing in the NDM demand estimation process which is expected to increase stability in the derived load factors, Transco considers that there may no longer be a need for NDLFs.

Implementation of Modification Proposal 0236a in 1999 provided for a phased change in the NDLFs from those values originally set out in the Network Code towards values more closely aligned with the most recently established national average load factors. It was considered that a move to the revised NDLF values in stages would help to ensure that any impact on transportation charges in any year was moderated. Delaying the potential removal of NDLFs until 2001 should therefore help to minimise any further transportation price impacts.

**3. Extent to which the proposed modification would better facilitate the relevant objectives**

Transco believes that the Nationally Diversified Load Factor (NDLF) values stated in the Network Code (for the three consumption ranges to which NDLFs apply) do not reflect the most recent unscaled national average load factors arising from the annual NDM demand estimation process. The proposed removal of NDLFs in October 2001 will ensure that the most up to date information is used in future to estimate the NDM load factors. This proposal should therefore improve cost-reflectivity in the setting of transportation charges, thereby promoting effective competition between Users.

**4. The implications for Transco of implementing the Modification Proposal , including**

**a) implications for the operation of the System:**

As any changes to the estimates of NDM load factors are expected to be minimal, Transco is not aware of any implications for the operation of the System.

**b) development and capital cost and operating cost implications:**

Transco is not aware of any development or capital cost implications.

**c) extent to which it is appropriate for Transco to recover the costs, and proposal for the most appropriate way for Transco to recover the costs:**

Not applicable.

**d) analysis of the consequences (if any) this proposal would have on price regulation:**

There is expected to be a minor impact on transportation charges as a result of moving from the use of NDLFs to the use of unscaled national average load factors in October 2001 although the precise level of change will depend on the exact values of the unscaled national average load factors arising from the NDM analysis undertaken in spring 2001.

A comparison of the unscaled national average load factors for the last two years and the NDLFs for 2000/2001 would indicate that any impact on transportation charges is likely to be restricted to 2% or less.

**5. The consequence of implementing the Modification Proposal on the level of contractual risk to Transco under the Network Code as modified by the Modification Proposal**

Transco is not aware of any consequence of implementing this proposal on the level of contractual risk to Transco

**6. The development implications and other implications for computer systems of Transco and related computer systems of Users**

Transco is not aware of any implications for computer systems, although the pricing computations would need to use the most recent unscaled national average load factors.

**7. The implications of implementing the Modification Proposal for Users**

As discussed under section 4d, implementation of the proposal could have a minor impact on transportation charges for Users. Any net effect on the transportation charges for Users with predominantly non-domestic NDM portfolios and those with predominantly domestic portfolios will depend on the precise level of the unscaled national average load factors arising from the NDM demand process for the winter 2000/2001.

**8. The implications of implementing the Modification Proposal for Terminal Operators, Consumers, Connected System Operators, Suppliers, producers and, any Non-Network Code Party**

Implementing the Modification Proposal should ensure that any potential cross-subsidy between non-domestic and domestic NDM customers is reduced in respect of the LDZ capacity charges.

**9. Consequences on the legislative and regulatory obligations and contractual relationships of Transco and each User and Non-Network Code Party of implementing the Modification Proposal**

Transco is not aware of any such consequences.

**10. Analysis of any advantages or disadvantages of implementation of the Modification Proposal**

**Advantages**

1. Implementation of this proposal would result in NDM load factors that more closely reflect present conditions and therefore more cost reflective transportation charges. The NDM model smoothing approach is expected to maintain increased stability in the year on year NDM load factors.

2. see comment below

**Disadvantages** : see comment below

Users with portfolios either predominantly in the domestic sector or the NDM non-domestic sector will see either an increase or decrease in their transportation charges depending on the outcome of the NDM demand estimation process for the winter 2000/2001, although any such change may be to a greater or lesser degree than if the

modification proposal were not implemented and the phased change in NDLFs (following the implementation of Modification 0236a) runs its course.

# **11. Summary of the Representations (to the extent that the import of those representations are not reflected elsewhere in the Modification Report)**

Five representations were received on the Draft Modification Report.

Of these, the following four respondents express support for the proposal :

|                  |     |
|------------------|-----|
| Aquila Energy    | Aq  |
| BG Trading       | BGT |
| BP Gas Marketing | BP  |
| Shell Gas Direct | SGD |

The following respondent does not express support for the proposal :

Northern Electric and Gas Supply    NE

Of those respondents expressing support for the proposals, three (SGD,BGT,Aq) state that NDLFs do not accurately reflect the values estimated each year, and that their removal should improve cost-reflectivity. BGT comment that NDLFs for the two non-domestic ranges have proved consistently to be too high and have therefore caused unjustifiable cross-subsidy.

Aq expresses support for the proposal on the condition that the Transco demand estimation process is given due scrutiny.

Three respondents (Aq,BGT,NE) express concern with possible effects on volatility and uncertainty with each year's deemed load factors that could result following the removal of NDLFs. NE's lack of support for the proposal is based on its view that there is too much uncertainty regarding the effects that the implementation of the proposal would have upon transportation charges. NE believes that more analysis is needed before a decision can be made. It argues that a possible increase in volatility year on year is unacceptable and expresses concern that there is no way of knowing whether there would be an increase or decrease in transportation charges.

Aq states that the average national load factors of particular sectors can change dramatically from year to year and quotes load factors from 1996 to 1997 as an example. It believes that the figures generated from NDM sampled sites may not always be representative of the real situation which may be less volatile. It states further concerns over the level of the total sample size for the 73.2 – 293 MWh/a for last year and argues that Transco should be basing their estimates on statistically significant samples of each EUC in every region. In addition, it states that the calculations of profiles and load factors need to be weather adjusted and smoothed between years.

BGT expresses strong support for the continuation of NDM “model smoothing” but believes that volatility will remain in the load factor estimates. It argues that the deletion of NDLFs with “smoothing” but in the absence of damping could result in

year on year swings in the individual EUC load factors, and draws attention to the differences between the peak load factor estimates after the “three-year smoothing”.

BGT suggests that with effect from 1 October 2001 the load factor for each individual EUC and WAR band is set each year at the simple average of the load factor in the previous supply year and the load factor estimated in the summer Algorithm Review. This would mean, BGT argues, that any variation in load factors from a pre-existing level will be introduced over two years rather than one, and if estimates are erratic the volatility will be damped. It comments that this would be particularly significant in 2001/2 as the final phase of the outcome of Modification 0236a (Nationally Diversified Load Factors) will not have been obtained. BGT cites the load factor averages for the 732 – 2196 MWh/a as an example of this and it suggests that damping would halve the change in average load factors that would otherwise result. It further comments that the principle of the phasing-in approach of Modification 236a is equally as relevant with this modification proposal.

#### Transco's Response

Transco welcomes the majority support for the proposal and the acknowledgement given to the benefits that the proposal should provide.

Transco accepts the view expressed by Aq that due scrutiny should be given to Transco's demand estimation process. Transco believes that the involvement of the Demand Estimation Sub Committee in the process ensures due scrutiny and transparency. Additionally the process is subject to a consultation exercise with the Industry and a power of override by Ofgem.

Regarding the issue of volatility and the potential effect on this following implementation of the proposal, Transco acknowledges that each year's average load factors would no longer be fixed and this would introduce a consequential effect on the transportation charges. However, because of increased stability in the load factors derived in the NDM demand estimation process due to the use of the model-smoothing approach, Transco would anticipate that any year on year fluctuations in the derived average load factors would be moderate and warranted. This has been demonstrated from the unscaled average load factors derived for the last two years, during which time model-smoothing techniques have been applied. The year on year changes for the three load bands during this period have been below 1.5 %. Although Transco agrees that the precise effect on next year's transportation charges can not be known at this stage, it remains of the view that it is likely to be restricted to 2% or less for each of the three load bands.

As part of the development work for the Modification 0236/0236a Review Group , Transco has already published and discussed in detail the effects that changes in average load factors would have on transportation charges. Transco does not believe that further analysis would provide a better indication of the exact effect on transportation charges for October 2001 as this would depend upon the NDM analysis undertaken in spring 2001.

The example quoted by Aq which gives changes in average load factors from 1996 to 1997 is unrepresentative as it refers to data and models used at the start of Network Code. Transco has consistently argued that it believes the process applied in the early stages of Network Code had limitations as it was based on a small sample of data and models that had only been tested for a limited period. Since then the sample sizes have increased and the modelling techniques have been improved and, together with the introduction of model-smoothing, the likelihood of this level of volatility has been lessened.

Transco welcomes the support expressed by BGT for the NDM model-smoothing and its continued use in the derivation of the average load factors. However, it does not share the view put forward by BGT that a form of damping should also be introduced for individual EUC and WAR-band load factors. Indeed, large changes in individual EUC load factors would not be prevented even if NDLFs continue to apply. It could be argued that the suggestion put forward by BGT seeks to provide a mechanism that, in addressing the treatment of individual load factors, is above and beyond the intent of NDLFs.

The proposal to introduce a damping mechanism at individual EUC level is in effect a form of averaging which it could be argued would distort cost-reflectivity to a further extent than the retention of NDLFs

In respect of the example provided by BGT of changes in the NDLFs for October 2001 in the 732 – 2196 MWh pa load band, where it states that a damping mechanism would halve any change in the load factors anticipated at that time, Transco is of the view that 2.5 – 3% is an acceptable level of change in order to align the average load factors to their true unscaled levels. Introducing a form of averaging at the same time may unnecessarily prolong the potential cross-subsidy between the load bands and compromise cost-reflectivity.

The table of larger load factor changes provided by BGT in their response refers to individual EUC load factor values after the scaling factor has been applied. The changes in the load factors during this period were principally as a result of the changes in the NDLF values used for scaling for the same period following the implementation of Modification 0236a, rather than changes to the underlying data.

Transco acknowledges the concerns expressed over the sample size in the 73.2 – 293 MWh pa in last year's analysis. However, the NDM sample size was an increase on the previous year's sample size and further sample points have been installed during winter 1999/2000 that should come into effect for the spring 2001 analysis. It should be noted, however, that increases in sample sizes beyond a minimum sample size will not necessarily improve the performance of EUC demand models. This was one of the conclusions reached by the development group for Modification 0262 (Revision to the Demand Forecasting Process).

**12. The extent to which the implementation is required to enable Transco to facilitate compliance with safety or other legislation**

Implementation is not required to facilitate compliance with safety or other legislation.

**13. The extent to which the implementation is required having regard to any proposed change in the methodology established under Standard Condition 3(5) or the statement furnished by Transco under Standard Condition 3(1) of the Licence**

Not applicable.

**14. Programme of works required as a consequence of implementing the Modification Proposal**

There are no modifications required to the UK-Link Systems and therefore a programme of works would not be required as a result of implementing the Modification Proposal.

**15. Proposed implementation timetable (including timetable for any necessary information systems changes)**

Transco recommends that this proposal should come into effect from 1 October 2001.

**16. Recommendation concerning the implementation of the Modification Proposal**

Transco recommends that this proposal is implemented.

**17. Restrictive Trade Practices Act**

If implemented this proposal will constitute an amendment to the Network Code. Accordingly the proposal is subject to the Suspense Clause set out in the attached Annex.

**18. Transco's Proposal**

This Modification Report contains Transco's proposal to modify the Network Code and Transco now seeks direction from the Director General in accordance with this report.

## 19. Text

Section H Paragraph 4.

Paragraph 4.1

Delete                      “SPC = NEC =  $\frac{AQ}{PLF \times 365}$  x PLSF”

Replace with              “SPC = NEC =  $\frac{AQ}{PLF \times 365}$  ”

Delete                      “PLSF is the applicable peak load scaling factor in accordance with paragraph 4.3.”

Paragraph 4.3              -      Insert “ Not Used”.

Delete and remove all text

Signed for and on behalf of Transco.

Signature:

**Tim Davis**  
**Manager, Network Code**

Date:

**Director General of Gas and Electricity Markets Response:**

In accordance with Condition 7 (10) (b) of the Standard Conditions of Public Gas Transporters' Licences dated 21st February 1996 I hereby direct Transco that the above proposal (as contained in Modification Report Reference **0407**, version **5.0** dated **03/10/2000**) be made as a modification to the Network Code.

Signed for and on Behalf of the Director General of Gas Supply.

Signature:

The Network Code is hereby modified with effect from, in accordance with the proposal as set out in this Modification Report, version **5.0**.

Signature:

**Process Manager - Network Code**  
**Transco**

Date:

## Annex

1. Any provision contained in this Agreement or in any arrangement of which this Agreement forms part by virtue of which The Restrictive Trade Practices Act 1976 ("the RTPA"), had it not been repealed, would apply to this Agreement or such arrangement shall not come into effect:
  - (i) if a copy of the Agreement is not provided to the Director General of Gas Supply ("the Director") within 28 days of the date on which the Agreement is made; or
  - (ii) if, within 28 days of the provision of the copy, the Director gives notice in writing, to the party providing it, that he does not approve the Agreement because it does not satisfy the criterion specified in paragraphs 1(6) or 2(3) of the Schedule to The Restrictive Trade Practices (Gas Conveyance and Storage) Order 1996 ("the Order") as appropriate

provided that if the Director does not so approve the Agreement then Clause 3 shall apply.
2. If the Director does so approve this Agreement in accordance with the terms of the Order (whether such approval is actual or deemed by effluxion of time) any provision contained in this Agreement or in any arrangement of which this Agreement forms part by virtue of which the RTPA, had it not been repealed, would apply this Agreement or such arrangement shall come into full force and effect on the date of such approval.
3. If the Director does not approve this Agreement in accordance with the terms of the Order the parties agree to use their best endeavours to discuss with Ofgem any provision (or provisions) contained in this Agreement by virtue of which the RTPA, had it not been repealed, would apply to this Agreement or any arrangement of which this Agreement forms part with a view to modifying such provision (or provisions) as may be necessary to ensure that the Director would not exercise his right to give notice pursuant to paragraph 1(5)(d)(ii) or 2(2)(b)(ii) of the Order in respect of the Agreement as amended. Such modification having been made, the parties shall provide a copy of the Agreement as modified to the Director pursuant to Clause 1(i) above for approval in accordance with the terms of the Order.
4. For the purposes of this Clause, "Agreement" includes a variation of or an amendment to an agreement to which any provision of paragraphs 1(1) to (4) in the Schedule to the Order applies.