

**CODE MODIFICATION PROPOSAL No 0330**  
**Delivery of additional analysis and derivation of Seasonal normal weather**  
**Version 5.0**

**Date:** 04/05/2011

**Proposed Implementation Date:**

**Urgency:** Non Urgent

**1 The Modification Proposal**

**a) Nature and Purpose of this Proposal**

**Background**

Derivation of a seasonal normal basis for use in industry profiles, allocation and AQs is a Transporter code requirement. Currently this requirement is met on a five-year basis using analysis undertaken by Transporters and presented to DESC to allow Shipper comment.

Over the past few years the Met Office and Hadley Centre have been working on a climate model that could analyse climate change over the next decade. The model was derived to be consistent with the Hadley Centre UKIP09 analysis that covers 2020 onwards and had involvement across the energy industry with a view to providing output that could be used to support industry processes. The output from this modelling process was made available to Transporters for use in their seasonal normal analysis, commonly referred to as EP2.

Previously seasonal normal analysis has concentrated on use of historical data as a base for deriving the future view of seasonal normal weather and while there was no apparent warming trend this has been sufficient. During the review that defined the current view of seasonal normal the original proposed methodology used a “new” concept arguing a breakpoint in behaviour was evident. However, both methodologies assume that historical data is sufficient to define future behaviour and provide no climatological foundation for the breakpoint identified.

The methodology proposed, and implemented, by the Transporters this time has been changed on a number of occasions, which is in itself a concern. Initially it was proposed to use a historical basis as in previous methodologies as it gave similar average levels to the EP2 output. When DESC argued that this missed the shape inherent in the EP2 analysis a revised approach was proposed. This used partial EP2 data but there was not widespread support from Shippers for this. The proposed basis was reviewed by the Met Office and a number of issues identified.

At a special DESC meeting the Transporters proposed an interim solution building on their latest methodology but using a partial implementation of the EP2 data through a compromise estimate methodology suggested by the Met Office. Whilst Shippers agreed to accept the proposal as a temporary

solution pending correct analysis and revision over the next year there was recognition from all Shippers that the underpinning methodology was not suitable as an enduring solution. The proposed version for 2010 uses a mixed methodology that has inherent flaws and has been adjusted using a known approximation as a temporary fix. This does not provide the sound foundation that is required to provide assurance across the industry that allocation, AQ and pricing are accurate and unbiased. EP2 provided a sound justifiable methodology based on an independent assessment of climate impact. While there are some adjustments to the output required for optimum use the base methodology provides a solid foundation for moving forward as an industry. To fully revise the methodology appropriately will require this additional work. During use of EP2 it has been recognised that to correctly reflect CWV variability the basic temperatures and wind speeds should be available for CWV calculation prior to any averaging taking place. This will require an update of the Met Office analysis. Given the use throughout the industry of any seasonal normal it is vital that the analysis is based on a sound methodology. However whilst there has been agreement within the industry that there is a benefit of undertaking this additional work, there have been issues around the funding of this work and how the outcome of this work would be implemented

### The Proposal

The intent of this proposal is to facilitate the funding of this work, and ensure that it is subject to UNC Governance. For clarity this proposal will not force the adoption of this analysis, as it would appear premature to require the utilisation of work when the outcomes are not currently known. However, the additional analysis will ensure that the most robust and accurate data set for the derivation of seasonal normal weather is used. The proposer believes that the current UNC arrangements could facilitate implementation, or a further UNC Modification Proposal could be raised if appropriate.

It is proposed that the UNC is modified so that an obligation is placed on the Transporters to use best endeavours to deliver the additional analysis and outputs identified below.

### **Stage 1.**

Currently a daily historical weather dataset (temperatures and wind speed) from 1927 to the current year for each LDZ has been compiled and is used by the gas industry to derive the coefficients for the composite weather variable (CWV). Periodically a weather station used to record actual data is closed down and the historical data associated with that station is adjusted to conform to the characteristics of a replacement weather station (usually sited nearby). The methodology used for the re-analysis of historical data is neither consistent nor published. A methodology needs to be agreed that will be used to re-analyse historical data as further station closures occur. The methodology needs to be published with enough detail to allow replication by users. The methodology and resulting database (including any updates) will be made available to all UNC signatories on demand This re-analysis

could be carried out by any competent meteorological company at an estimated cost of £20,000. For the avoidance of doubt this exercise will need to be undertaken every time a weather station changes.

## **Stage 2.**

The gas industry currently uses historical weather data to derive the coefficients for the composite weather variable (CWV). Until a few years ago, the database described above was employed, however the drift in average temperature caused by climate change has meant that historical temperature data now requires prior adjustment to make historical data consistent with today's climate. An attempt at using climate trends to adjust the data has been employed but the method does not have the full confidence of many industry participants and the Met Office, when asked to comment, suggested it would constitute a stop-gap solution at best. The Met Office has since proposed a methodology that would effectively adjust each year of the historical dataset (as described in stage 1) to a level consistent with climate change. This would effectively provide over eighty years of adjusted data that could be used as 'scenarios'; it would thus feed directly into the analysis used to generate the CWV and be fully consistent with the current climate. This work would be based on the EP2 approach to climate adjustments and as a by-product, would update the existing climate averages used by industry participants. This methodology behind the analysis would be fully documented and the resulting historical datasets made available to UNC signatories on demand. A provisional estimate of the cost of this work, provided by the Met Office is £200,000.

To facilitate this work the Transporters will work with the Demand Estimation Sub-Committee and seek confirmation and approval of the scope of work specified in the relevant invitation to tender, and that the completed work and proposed methodology would also be subject to approval by the Demand Estimation Sub-Committee. This will be gained by simple majority vote of DESC members.

The work that the Transporters will be expected to deliver is:

- To develop a methodology that will be used to re-analyse historical data as further weather station closures occur. The methodology needs to be published with enough detail to allow replication by users. The methodology and resulting data (including any updates) will be made available to all UNC signatories on demand.
- To develop a methodology that would effectively adjust each year of the historical dataset (as described above) to a level consistent with climate change. The methodology behind the analysis would be fully documented and the resulting historical datasets made available to UNC signatories on demand.

## **b) Justification for Urgency and recommendation on the procedure and timetable to be followed (if applicable)**

This proposal should follow normal UNC processes.

- c) **Recommendation on whether this Proposal should proceed to the review procedures, the Development Phase, the Consultation Phase or be referred to a Workstream for discussion.**

This proposal has been discussed and developed at the Demand Estimation Sub-Committee meetings and it has also been presented to and has been discussed at the UNC Distribution Workstream. It is recommended this proposal should be put out for consultation.

## 2 User Pays

- a) **Classification of the Proposal as User Pays or not and justification for classification**

Currently, the obligation is on the Transporters to deliver this analysis as a code requirement..

- b) **Identification of Users, proposed split of the recovery between Gas Transporters and Users for User Pays costs and justification**

A 50/50 split of cost amongst the NDM Shippers and Transporters based on cost sharing agreed at EP2. The shippers split is based on the NDM shipper's customer numbers.

It is expected that the analysis identified in stage 1 could be carried out by any competent meteorological company at an estimated cost of £20,000.

A provisional estimate of the cost of the work to be conducted in stage 2 has been provided by the Met Office at £200,000.

- c) **Proposed charge(s) for application of Users Pays charges to Shippers**

Equal amount per registered NDM meter points on the date of implementation of this proposal.

If the above calculation leads to a liability for less than £1,000 for any user, this will be set to zero and the remainder recalculated to ensure full cost recovery.

- d) **Proposed charge for inclusion in ACS – to be completed upon receipt of cost estimate from xserve**

TBC

## 3 **Extent to which implementation of this Modification Proposal would better facilitate the achievement (for the purposes of each Transporter's Licence) of the Relevant Objectives**

***Standard Special Condition A11.1 (c): so far as is consistent with sub-paragraphs (a) and (d), the efficient discharge of the licensee's obligations under this licence***

Shippers believe that implementation would enable Transporters to efficiently discharge their licence obligation Standard Special Condition A7 to enter into transportation arrangements in accordance with the UNC.

***Standard Special Condition A11.1 (d): so far as is consistent with subparagraphs (a) to (c) the securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers;***

Implementation of this proposal would allow the development of alternative methodologies that could be used to improve the accuracy of energy allocation between NDM Shippers in the SSP and LSP markets. The availability of alternative methodologies will ensure that the most accurate energy allocation possible occurs to Shippers in the SSP and LSP market by D+5. The accurate allocation of costs by D+5 will benefit competition by ensuring that Shippers are exposed to the costs that they have incurred and so ensure that there is a limited cross subsidy between Shippers, even if this were to occur on a cash flow basis. Ensuring costs are accurately targeted is a fundamental requisite of a competitive market.

Further implementation of this proposal would also reduce SSP Shippers' exposure to RbD and LSP Shippers' exposure to reconciliation. These are both viewed as a risk to Shippers as they occur at SAP and Shippers are unable to manage or hedge this exposure. Removing a risk would also represent removing a barrier to entry and so also benefit competition. Based on a 0.2% volume correction allocation, the benefit would be around £8M per month across the industry. This is based on a calculation presented in a letter shippers sent to Ofgem in November 2009 "For example, reconciliation for 2009 to date has adjusted over 1TWh of the initial allocation for January 2009 from LSP to SSP markets. Given price changes between purchase could be large this is a high value risk. For example the differential between Sept 2008 purchase prices and Jan 2009 SAP used for reconciliation, only a 4 month difference, was up to 23pence per therm and this amounts to just under £8million on a 0.2% volume change for a single month. It can be seen from this that the risk to Shipper organisations can be significant"

***Standard Special Condition A11.1 (f): so far as is consistent with subparagraphs (a) to (e), the promotion of efficiency in the implementation and administration of the network code and/or the uniform network code;***

This proposal will provide an additional source of data to Transporters when deciding which methodology to use when deriving seasonal normal weather. This proposal will therefore ensure that the Transporters are not constrained to a single data set and so could be seen to facilitate this requirement by ensuring that the requirements in the UNC are efficiently met.

**4 The implications of implementing this Modification Proposal on security of supply, operation of the Total System and industry fragmentation**

No impacts identified.

**5 The implications for Transporters and each Transporter of implementing this Modification Proposal, including:**

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

No implications identified.

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

Potentially £220,000 for implementation of both stages across the industry.

**c) Whether it is appropriate to recover all or any of the costs and, if so, a proposal for the most appropriate way for these costs to be recovered:**

100% cost recovery through Code User Pays mechanisms to NDM Shippers and Transporters base on a 50/50 split.

**d) The consequence (if any) on the level of contractual risk of each Transporter under the Uniform Network Code of the Individual Network Codes proposed to be modified by this Modification Proposal**

None identified.

**6 The extent to which the implementation is required to enable each Transporter to facilitate compliance with a safety notice from the Health and Safety Executive pursuant to Standard Condition A11 (14) (Transporters Only)**

Not applicable.

**7 The development implications and other implications for the UK Link System of the Transporter, related computer systems of each Transporter and related computer systems of Users**

None identified

**8 The implications for Users of implementing the Modification Proposal, including:**

**a) The administrative and operational implications (including impact upon manual processes and procedures)**

If Shippers chose to support the work of DESC then this may represent an additional operational cost to Shippers. However it is expected that this cost will only occur when the benefits outweigh the costs.

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

Additional operational costs to NDM Shippers and Transporters to fund this work on a 50/50 basis.

**c) The consequence (if any) on the level of contractual risk of Users under the Uniform Network Code of the Individual Network Codes proposed to be modified by this Modification Proposal**

This proposal should result in improved energy allocation by D+5 across the industry, thereby reducing contractual risk as certainty of cost is crystallised at an earlier stage.

**9 The implications of the implementation for other relevant persons (including, but without limitation, Users, Connected System Operators, Consumers, Terminal Operators, Storage Operators, Suppliers and producers and, to the extent not so otherwise addressed, any Non-Code Party)**

Improved energy allocation at D+5 should benefit NDM customers..

**10 Consequences on the legislative and regulatory obligations and contractual relationships of the Transporters**

None identified

**11 Analysis of any advantages or disadvantages of implementation of the Modification Proposal not otherwise identified in paragraphs 2 to 10 above**

**Advantages**

- Ensures Transporters are actively involved in the processes envisaged in this proposal.
- Ensures that the climatological expertise within the industry is fully utilised

**Disadvantages**

- May require a further UNC Modification Proposal for implementation of any recommendation emerging as a result of implementing this proposal.

**12 Summary of representations received as a result of consultation by the Proposer (to the extent that the import of those representations are not reflected elsewhere in this Proposal)**

None

**13 Detail of all other representations received and considered by the Proposer**

This version (V3 ) is the result of feedback from one organisation.

**14 The extent to which the implementation is required to enable each Transporter to facilitate compliance with safety or other legislation**

No such requirement have been identified.

**15 Programme for works required as a consequence of implementing the**

## **Modification Proposal**

The Transporters would be required to establish a process to procure the information envisaged within this Proposal

### **16 Recommendations on the time scale for the implementation of the whole or any part of this Modification Proposal**

This proposal can be implemented immediately on direction from Ofgem. A potential service provider has indicated that the required analysis should take no longer than 12 months.

### **17 Implications of implementing this Modification Proposal upon existing Code Standards of Service**

No implications of implementing this Modification Proposal upon existing Code Standards of Service have been identified.

### **18 Comments on Suggested Text**

None

### **19 Suggested Text**

None

## **Code Concerned, sections and paragraphs**

Uniform Network Code

Transportation Principal Document

**Section(s)** Demand estimation ,section H

## **Proposer's Representative**

*Mo Rezvani*

## **Proposer**

*Mo Rezvani*