

Modification Report
Delivery of additional analysis and derivation of Seasonal normal weather
Modification Reference Number 0330

Version 3

This Modification Report is made pursuant to Rule 9.3.1 of the Modification Rules and follows the format required under Rule 9.4.

1 The Modification 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.

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.

E.ON UK explains that the current code responsibility lies with Transporters through UNC H and as such is funded through price control processes, making this arguably a fully funded Transporter requirement, the User Pays element recognises the drivers Shippers have to improve the mechanism and the cross industry benefits from an improved process.

National Grid NTS are concerned that Modification 0330 does not clearly state whether it is a User Pays proposal or not. They are also concerned that whilst a cost estimate from the Met Office of £20,000 is mentioned the lack of clarity on User Pays leaves them concerned as to what the actual cost to the industry will be, how these costs are to be apportioned, and over what period of time. National Grid NTS are also concerned that the proposal does not provide justification as to why 50% of the costs should be apportioned to Transporters. The justification provided under the relevant objectives does not identify additional benefit to Transporters brought about by the implementation of this proposal. Therefore they question the proposer's allocation of costs to Transporters, and do not agree that Transporters should fund 50% of costs.

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 is proposed. The Shipper split is to be based on the NDM shipper's customer numbers. The Transporters did not believe they would benefit from implementation and that application of the User Pays Guidance suggests that the Transporter share should be zero.

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.

National Grid Distribution remains to be persuaded that Transporters particularly benefit from implementation of this modification; however, given that the outputs from the new methodology would flow through to their planning processes, they accept that the 50/50 split is a pragmatic way forward.

National Grid NTS are concerned that whilst a cost estimate from the Met Office of £200,000 (stage 2 work) is mentioned in the Modification Proposal, they note that the proposal states it is a provisional estimate. Coupled with the lack of clarity on the question of User Pays they are concerned as to what the actual cost to the industry will be, how these costs are to be apportioned, and over what period of time.

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

Equal amount per registered NDM meter point on 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 Xoserve

Charges applicable for inclusion in ACS to be confirmed.

3 Extent to which implementation of the proposed modification would better facilitate the relevant objectives

Standard Special Condition A11.1 (a): *the coordinated, efficient and economic operation of the pipe-line system to which this licence relates;*

Implementation would not be expected to better facilitate this relevant objective.

Standard Special Condition A11.1 (b): *so far as is consistent with sub-paragraph (a), the (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters;*

Implementation would not be expected to better facilitate this relevant objective.

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

Implementation would not be expected to better facilitate this relevant objective.

Standard Special Condition A11.1 (d): *so far as is consistent with sub-paragraphs (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 assess and, if concluded necessary, 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 due to profile errors on allocation. 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”.

British Gas considers that this Modification Proposal will enable a more accurate picture of how gas demand is impacted by the weather, and in particular climate change. This will in turn improve the accuracy with which costs are allocated in the market and thus facilitate more effective competition between Shippers by ensuring that they only pay their fair share. To this extent they believe that this Modification Proposal facilitates relevant objective (d).

E.ON UK explain that Seasonal normal CWV values underpin much of the charging mechanisms across the industry and as such any suggestion that the methodology used to derive these values is flawed throws into question the accuracy of the allocation and hence charges to Shippers. As mentioned within the modification, even a small improvement in allocation can lead to significant (many millions) changes in cost to Shippers. This will have a major impact on how well Shippers can balance their income and costs and could be seen as impacting competition by raising risks. Improvements would therefore facilitate relevant objective A11.1(d).

SSE considers that the availability of alternative methodologies will ensure that the most accurate energy allocation possible occurs to Shippers in the SSP and LSP markets by D+5 which in turn benefits 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 cost are accurately targeted is a fundamental requisite of competitive market and so facilitates relevant objective A11.1 (d).

SSE were of the opinion that 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.

Standard Special Condition A11.1 (e): so far as is consistent with sub-paragraphs (a) to (d), the provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards (within the meaning of paragraph 4 of standard condition 32A (Security of Supply – Domestic Customers) of the standard conditions of Gas Suppliers’ licences) are satisfied as respects the availability of gas to their domestic customers;

Implementation would not be expected to better facilitate this relevant objective.

Standard Special Condition A11.1 (f): so far as is consistent with sub-paragraphs (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 methodology and so could be seen to facilitate this requirement by ensuring that the requirements in the UNC are efficiently met.

EDF Energy explained that when Shippers attempted to implement a change to the CWV through the UNC this required three modification proposals, and a workaround solution that was viewed as a stop-gap measure by recognised experts. This could not be seen as efficient, and the perception from Shippers was that this was being driven by concern from Transporters who had not been involved when developing the proposed methodology. The basis of this proposal is to require active engagement by the Transporters when developing and updating the methodology, and so address Users' concerns of being presented with a methodology that they have not been involved with. This in turn would avoid the need for numerous modifications and industry effort, thus facilitating the efficient administration and implementation of the UNC.

E.ON UK are concerned that even with unanimous disapproval from Shipper representatives at DESC of the current methodology it has been implemented and is not in the process of being reviewed despite agreement that, if objections were withdrawn to allow implementation, a full review to develop a less flawed methodology would be immediately undertaken. They consider a process that facilitates Shipper and Transporter co-operation to derive an uncontested methodology for seasonal normal CWV through a clear and transparent process without requiring numerous modifications and written complaints would facilitate relevant objective A11.1(f).

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

No implications on security of supply, operation of the Total System or industry fragmentation have been identified.

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

a) implications for operation of the System:

There are no implications for operation of the System.

b) development and capital cost and operating cost implications:

Potentially £220,000 for implementation of both stages across the industry, based on quotes from Weather data providers.

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

100% cost recovery through Code User Pays mechanisms to NDM Shippers and Transporters based on a 50/50 split. Transporters do not agree that they should bear a share of costs.

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

No consequences have been identified.

6 The consequence of implementing the Modification Proposal on the level of contractual risk of each Transporter under the Code as modified by the Modification Proposal

No such consequence is anticipated.

7 The high level indication of the areas of the UK Link System likely to be affected, together with the development implications and other implications for the UK Link Systems and related computer systems of each Transporter and Users

No changes to systems would be required as a result of implementation of this Proposal.

8 The implications of implementing the Modification Proposal for Users, including administrative and operational costs and level of contractual risk

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.

Development and capital cost and operating cost implications

Additional operational and development costs to NDM Shippers.

Consequence for the level of contractual risk of Users

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

9 The implications of implementing the Modification Proposal for Terminal Operators, Consumers, Connected System Operators, Suppliers, producers and,

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 each Transporter and each User and Non Code Party of implementing the Modification Proposal

No consequences have been identified.

11 Analysis of any advantages or disadvantages of implementation of the Modification Proposal

Advantages

- Ensures Transporters are actively involved in the processes envisaged in this Proposal
- Allows the adoption of a methodology agreed by Transporters and Shippers prior to the development of the seasonal normal value.
- As the current seasonal normal value was implemented under dispute, the Workgroup believe this modification will result in a seasonal normal value that is likely to be acceptable to all parties.

Disadvantages

- May require a further UNC Modification Proposal for implementation of any recommendations emerging as a result of implementing this Proposal.
- There is a risk that the resulting data does not influence or change the current seasonal normal value and therefore does not provide the benefits identified.

12 Summary of representations received (to the extent that the import of those representations are not reflected elsewhere in the Modification Report)

Representations were received from the following parties:

Organisation	Position
British Gas	Support
EDF Energy	Support
E.ON UK	Support
National Grid Distribution	Qualified Support

National Grid Transmission	Not in Support
RWE npower	Support
SSE	Support

Of the 7 representations received, 5 support implementation, 1 offered qualified support and 1 was not in support.

British Gas considers the reliance of the current methodology on historic data to predict the impact of future weather patterns on gas consumption to be questionable given the impacts of climate change, and have concerns that the interim solution imposed by the Network Owners does not resolve the issue. Given the seasonal normal analysis is an integral part of the demand estimation algorithms which allocate £billions of cost in the market today, they believe that a more robust model is required if the integrity of the process is to be maintained.

British Gas strongly support the proposal to fund a third party to develop a methodology which adjusts the data from weather stations so that it more accurately takes account of the effects of climate change. Climate change is one of the largest drivers of consumption change and the industry as a whole needs confidence that the industry's demand estimation algorithms accurately allow for it.

British Gas considers that climate change has the potential to impact different types of end users, and therefore different Shippers, in different ways due to the varying impacts on both typical summer and winter conditions. The accuracy of models in predicting the impact of climate change on Shippers with, for example, a higher than normal proportion of energy intensive end users in the winter, is crucial to the accuracy with which energy costs are allocated in the market. They therefore consider that this has an important bearing on the effectiveness of competition in the gas Shipper market.

EDF Energy considers that the composite weather variable (CWV) is fundamental to gas industry processes driving the AQ calculations and so impacting on the allocation of billions of pounds worth of energy and the recovery of distribution and transmission revenues. It is therefore imperative that the CWV is as accurate as possible. This modification seeks to introduce a process that would allow an accurate calculation of the CWV and address the issues identified by the Met Office with the current methodology.

E.ON UK considers Modification 0330 has been based on industry discussions at the time to provide a clearer historical weather set that could be used across the industry to support improvements in weather demand modeling. It would also future proof the information against potential weather station changes and provide some consistency that is lacking currently.

E.ON UK explained industry concerns about the methodology employed for the current seasonal normal basis and the requirement to develop a replacement, advising the second part of Modification 0330 provides a basis for extending the EP2 analysis to properly support the requirements. This would allow an agreed and undisputed

methodology to be developed for updating the seasonal normal appropriately.

National Grid Distribution remain to be convinced that this Proposal is the correct way forward, but are prepared to offer limited support given the general support offered by the community indicating that the Proposal is the right way forward.

National Grid Distribution is aware that the procurement process associated with implementation may not be straight forward due to confidentiality issues - this has been highlighted to interested parties.

National Grid Distribution is content that the legal text reflects the intent of the Proposal. Noting that the obligation for Transporters to procure the development of the “Weather Station Substitution Methodology” and the “Climate Change Methodology” have been placed into the Transition Document, on the basis that these are viewed as one off events. It is not clear whether or when this obligation will fall away. In other words the obligation can be fulfilled as a “one off” but it is not clear whether an ongoing obligation would exist.

National Grid NTS consider that the proposal is unclear in a number of areas, in particular the proposed governance arrangements. They provide a list which they believe would cause ambiguity if the proposal was implemented in its current form. They also express concerns that the legal text does not accurately reflect the wording of the proposal. They consider the lack of clarity in the proposal makes it difficult to reconcile the legal text to the proposal and as such there is a risk that different parties will interpret this proposal in different ways leading to confusion.

National Grid NTS have raised concerns about the Proposal’s lack of clarity at various UNC Panel and industry workgroup meetings and as such they may not be considered as “new issues”. However, they believe the above requests for clarification should be treated as such in accordance with UNC Modification Rules 9.3.1 and 9.3.2.

RWE npower considers this modification will facilitate analysis (that can be replicated by users) that will provide a transparent data set of historical weather. The modification will also allow the derivation of CWV to be based on a robust data history that is consistent/applicable to present day climate and incorporate robust climatology data. This will ensure the accuracy of CWV.

SSE support implementation as the modification allows for an agreed and transparent methodology for calculating seasonal normal weather with minimal additional cost to the industry. Stage 1 clarifies how historical weather data has been derived, specially in the case of weather station closures and changes. Stage 2 provides a basis for how the EP2 analysis is extended.

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

No such requirement has been identified.

14 The extent to which the implementation is required having regard to any proposed change in the methodology established under paragraph 5 of Condition A4 or the statement furnished by each Transporter under paragraph 1 of Condition 4 of the Transporter's Licence

No such requirement has 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 Proposed implementation timetable (including timetable for any necessary information systems changes)

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.

Advance notice of implementation is required to allow for the capture of meter point portfolio counts for each Shipper.

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 Recommendation regarding implementation of this Modification Proposal and the number of votes of the Modification Panel

The Panel Chair summarised that the modification seeks to introduce methodologies for assessing the impact of weather station closures and climate change. External advice is to be procured to support establishment of these methodologies, which will in turn, if adopted, impact Composite Weather Variables and the allocation of energy between Shippers.

Panel members recognised that the availability of additional information would be expected to lead to improved modelling and consequently more accurate cost allocations. By improving the allocation of costs between Users, implementation would therefore be expected to facilitate the development of effective competition.

Some Members were concerned that aspects of the modification are unclear. This may create uncertainty and consequently implementation would not be consistent with facilitating efficient administration of the UNC. However, other Members felt that efficient implementation of the UNC would be facilitated by implementation of the modification since clarity would be provided regarding the way in which new

information can be procured and subsequently reflected in demand attribution processes.

With eight out of a possible ten votes cast in favour, Panel Members determined to recommend that Modification 0330 should be implemented.

The benefits against the Code Relevant Objectives	
Description of Relevant Objective	Identified impact
a) Efficient and economic operation of the pipe-line system.	None
b) Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	None
c) Efficient discharge of the licensee's obligations.	None
d) 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.	Positive
e) Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied	None

as respects the availability of gas to their domestic customers.	
f) Promotion of efficiency in the implementation and administration of the Code	Impacted

19 Transporter's Proposal

This Modification Report contains the Transporter's proposal to modify the Code and the Transporter now seeks direction from the Gas and Electricity Markets Authority in accordance with this report.

20 Text

Proposed Amendments to the Uniform Network Code
Transportation Principal Document
Section H

Insert the following new paragraphs 1.4.4 to 1.46

1.4.4 The Transporters shall:

- (i) provide a copy of the Weather Station Substitution Methodology to any User on request from that User;
- (ii) adjust, in accordance with the Weather Station Substitution Methodology, the historical data in relation to wind speeds and temperatures at weather stations which have ceased operation and have been replaced, for the purposes of the relevant Composite Weather Variable(s), by other weather stations; and
- (iii) provide such adjusted data to any User on request.

1.4.5 The Transporters shall provide to any User on request from that User:

- (i) a copy of the Climate Change Methodology; and
 - (ii) the data in relation to wind speeds and temperatures at weather stations utilised by the Transporters for the purposes of any Composite Weather Variable as such data is adjusted from time to time pursuant to sub-paragraph 1.4.4(ii) and as adjusted in accordance with the Climate Change Methodology.
- 1.4.6 Nothing in paragraphs 1.4.4 and 1.4.5 shall oblige the Transporters to apply the Weather Station Substitution Methodology or Climate Change Methodology so as to revise any Composite Weather Variable.

Proposed Amendments to the Uniform Network Code

Transition Document

Part IIC

Insert the following new paragraphs 11.5.3 to 11.5.9:

- 11.5.3 Subject to paragraph 11.5.7(i), the Transporters shall, acting as a Reasonable and Prudent Operator, procure the development by a reputable meteorological services company of a methodology suitable for the adjustment, for the purposes of Composite Weather Variables, of historical data in relation to wind speeds and temperatures at weather stations which cease operation and are replaced by other weather stations (in suitable locations) for the purposes of such formula (“the **Weather Station Substitution Methodology**”).
- 11.5.4 Section H1.4.4 shall not come into effect until such time (if any) as the Weather Station Substitution Methodology has been approved by the Demand Estimation Sub-Committee as referred to in paragraph 11.5.7(ii) and shall apply only in relation to weather stations which cease operation after 1 November 2011.
- 11.5.5 Subject to paragraph 11.5.7(i) following the approval of the Weather Station Substitution Methodology by the Demand Estimation Sub-Committee as referred to in paragraph 11.5.7(ii), the Transporters shall, acting as a Reasonable and Prudent Operator, procure the development, by a reputable meteorological services company, of a methodology suitable for use in adjusting historical data in relation to wind speeds and temperatures at weather stations so that Composite Weather Variables (assuming the Composite Weather Variables were determined

taking into account the Weather Station Substitution Methodology) take into account climate change trends (the “Climate Change Methodology”).

11.5.6 Section H1.4.5 shall not come into effect until such time (if any) as the Weather Station Substitution Methodology and Climate Change Methodology have been approved by the Demand Estimation Sub-Committee as referred to in paragraph 11.5.7(ii).

11.5.7 The Transporters shall not:

(i) invite tenders for the development of the Weather Station Substitution Methodology or the Climate Change Methodology without the prior approval by the Demand Estimation Sub-Committee (on a simple majority vote of the members of such Sub-Committee present at the relevant meeting of the Sub-Committee) of the scope of work specified in the relevant invitation to tender; or

(ii) revise the formula by which the Composite Weather Variable for any LDZ is determined so as to incorporate either the Weather Station Substitution Methodology or the Climate Change Methodology without the approval of the relevant methodology by the Demand Estimation Sub-Committee (on a simple majority vote of the members of such Sub-Committee present at the relevant meeting of the Sub-Committee).

11.5.8 Nothing in paragraphs 11.5.3 and 11.5.5 shall oblige the Transporters to apply the Weather Station Substitution Methodology or Climate Change Methodology so as to revise any Composite Weather Variable.

For and on behalf of the Relevant Gas Transporters:

Tim Davis