

REVIEW GROUP TERMS OF REFERENCE

CODE REVIEW PROPOSAL No 0251 **Review of the Determination of Daily Calorific Values** **Version 1.0**

Date: 13/05/2009

Purpose

The Review Group is to investigate the appropriateness of the current methodology for calculating daily billable calorific values and its impact on CV Shrinkage. Where issues are identified the Review Group should explore options and make recommendations to resolve them.

Background

The calorific value (CV) of natural gas determines the amount of energy transported. CV information is provided daily to Shippers and Suppliers and is used by them to bill gas consumers for the energy they use. The methodology for calculating the daily CV within each charging zone is designed to ensure that gas consumers within a zone are not at material risk of being charged for energy not supplied due to local variations in the CV of the gas entering that zone.

The methodology that is currently used for determining the daily billable CV for each charging zone is enshrined within the Gas (Calculation of Thermal Energy) Regulations 1996 (as amended 1997) (the "Regulations"). In summary, the methodology detailed in paragraph 4(A) of the Regulations says that the daily CV for a charging zone shall be the lowest of:

- The flow weighted average CV calculated across all of the inputs into the charging zone; or
- The average CV measured at any of the individual input points to the charging zone, plus 1MJ/m³.

This means that the daily CV used by Shippers and Suppliers for billing gas consumers in each charging zone can be effectively capped at 1MJ/m³ above the lowest average CV source entering that charging zone, no matter how little the amount (volume) of low CV gas is delivered on that Day. Conversely, at entry the energy associated with all inputs to the system is derived from actual measured CVs at each of the various delivery facilities. Therefore, a mismatch can arise between the total amount of energy (kWh) delivered into the system on a day and the total amount of energy that is deemed to have been offtaken by gas consumers, this difference being "unbilled" energy. Any such "unbilled" energy is procured by National Grid NTS to make up the shortfall in the daily energy balance. This is known as CV Shrinkage and a proportion of the cost of this energy procurement is currently redistributed to NTS shippers through NTS Commodity charges. In some instances, this proportion would be 100%.

Historically, UKCS production has been high and stable, which has meant that CV related shrinkage has been at relatively low levels. However, as GB moves towards a greater diversity of supplies, this will almost certainly mean a greater variance in CV between different sources of gas imported from different countries. Furthermore, the development of

biogas and coal bed methane projects in GB is likely to introduce low volume, and potentially lower CV gas into the system which may lead to a greater propensity for CV capping effects under the current regime. Whilst at present such projects are at an early stage of development, a key enabler for them was the implementation of Modification 0154 “Enduring Provisions for LDZ Entry Points” in October 2007, which established an enduring framework for new entry and storage to connect directly to Distribution Networks.

National Grid NTS first drew attention to the potential need for reform in this area in December 2007 and has since been supported by Ofgem and others. Indeed, Ofgem have recently urged National Grid NTS, Distribution Network Operators and Shippers to work together to explore the issues.

Scope and Deliverables

The Review Group’s remit is:

- Consider the current rules for calculating daily billable CVs based on the current gas supply topology;
- Identify future gas network flow scenarios associated with:
 - potential new sources of gas entering the NTS and/or directly entering DNs, including biogas;
 - deliveries from existing sub-terminals if all were to adopt the full range of gas quality parameters as set out in the Gas Safety (Management) Regulations 1996 and in Appendix 5 of National Grid NTS’s Ten Year Statement;
- For a range of identified future gas network flow scenarios, forecast levels of unbilled energy based on the current rules for calculating daily billable CVs;
- Analyse the cost impacts of the identified unbilled energy scenarios, including Shipper and Supplier costs, in particular, assessing whether any parties may be unduly disadvantaged;
- If appropriate, develop alternative methodologies for the calculation of daily billable CVs, forecast their cost impact on the various parties and explore the pros and cons of each;
- Consider the appropriateness of current CV measurement processes within the DNs;
- Identify the governance arrangements and process for implementation associated with a change to the Regulations;
- Develop if appropriate relevant modifications to the UNC, identifying how their implementation would facilitate achievement of the Code Relevant Objectives; and
- Identify the impact on processes and procedures associated with the implementation of any alternative methodologies.

The Review Group will provide a report to the UNC Panel by 15 October 2009.

Limits

While the Review Group should focus on changes to the UNC, it should also identify potentially beneficial changes to the Regulations pertaining to the calculation of daily billable CVs. If, during the course of this review, it becomes apparent that other industry arrangements have potential interactions with the outputs from this Review Group, the Review Group may consider the effects that those arrangements may have on this Group's deliberations.

The Review Group will focus on developing proposals for change that efficiently address any issues identified in a proportionate and cost effective manner.

Composition of Review Group

Membership has been sought from a wide range of parties and the following have registered to be Members:

Tim Davis (Chair)	Joint Office
Lorna Dupont (Secretary)	Joint Office
Adam Sims	National Grid NTS
Alan Raper	National Grid Distribution
Brian Durber	EON UK
Chris Wright	Centrica
Dave Lander	Consultant (representing National Grid Distribution)
Dave Tilley	National Grid Distribution
Jeff Chandler	Scottish and Southern Energy
Joanna Ferguson	Northern Gas Networks
John Baldwin	CNG Services
John McNamara	NTS Shrinkage Provider
Ljuban Milicevic	Ofgem
Phil Hobbins	National Grid NTS
Richard Wilson	NTS Shrinkage Provider
Simon Trivella	Wales & West Utilities
Stefan Leedham	EDF Energy

Steve Rose	RWE npower
Steve Rowe	Ofgem
Steve Sherwood	Scotia Gas Networks

Timetable

A total period of 6 months has been allowed to conclude this Review.

Although the frequency of meetings will be subject to review and potential change by the Review Group it is suggested that the frequency of the meetings be once a month.

Meetings will be administered by the Joint Office and conducted in accordance with the Chairman's Guidelines.