



Revised LDZ Shrinkage Proposals for 1st April 2013 to 31st March 2014

**Scotia Gas Networks
July 2013**

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Revised LDZ Shrinkage Factors Proposal for 1st Apr 2013 to 31st Mar 2014

1 Purpose of Proposal

The purpose of this paper is to present our proposals of LDZ Shrinkage Quantities for the Formula Year 2013/14 as required under Section **N 3.1.3 of the Uniform Network Code**.

The Scotia Gas Networks proposals for 1st Apr 2013 to 31st Mar 2014 has been re-published and produced in line with the new shrinkage arrangements in the revised gas transporter licences (covering the period 1 April 2008 to 31 March 2014) and the UNC, which was aligned to the licence conditions by the approval of UNC Modification Proposal 0203V.

The most significant change in the Shrinkage process is that Shrinkage quantities rather than Shrinkage factors are to be estimated for each Formula Year - as Shrinkage has been deemed not to be linked to throughput.

An additional UNC Modification Proposal 0225 has recently been approved by Ofgem which further aligned the UNC process to the new Licence Conditions in respect of the timing of shrinkage calculations. The Mod moved the Shrinkage process from Gas Year to Formula Year to ensure consistency with the Shrinkage Revenue Incentive in the Gas Transporter Licences.

It should also be noted that in this paper the Scottish Independent Networks of Thurso, Wick, Campbeltown, Oban and Stranraer have their shrinkage quantities detailed separately. This is because, for the purposes of the UNC and in line with section A paragraph 1.7.4 (a), each Scottish Network is treated as a separate LDZ.

2 Summary of Proposal

Due to the approval of UNC Modification Proposal 0203V Shrinkage quantities, rather than Shrinkage Factors, are to be estimated for each Formula Year. Thus, as Shrinkage has been deemed not to be linked to throughput, Shrinkage is to be procured as a fixed daily LDZ Shrinkage Quantity throughout the Formula Year.

We propose to apply the revised Shrinkage Quantities outlined in table 1 below from **06:00 hrs on 1st October 2013**.

LDZ	13/14 Yearly Leakage (GWh)	13/14 Yearly Own Use Gas (GWh)	13/14 Yearly Theft of Gas (GWh)	13/14 Yearly Shrinkage (GWh)
Scotland	220.17	5.82	10.30	236.29
Thurso	0.24	0.005	0.01	0.26
Wick	0.28	0.005	0.01	0.29
Campbeltown	0.24	0.004	0.01	0.26
Oban	0.40	0.004	0.01	0.41
Stranraer	0.30	0.016	0.03	0.35
South East	340.57	6.74	11.94	359.26
Southern	229.32	4.39	7.77	241.49

Table 1. Proposed Shrinkage quantity values for 1st Apr 2013 to 31st Mar 2014

The resultant daily shrinkage quantities are shown in table 2 for information;

	Proposed Shrinkage Quantities 2013/14 (GWh)	Resultant Fixed Daily Shrinkage Quantities 2013/14 (kWh)
LDZ		
Scotland	236.29	647,363
Thurso	0.26	704
Wick	0.29	796
Campbeltown	0.26	698
Oban	0.41	1,114
Stranraer	0.35	960
South East	359.26	984,267
Southern	241.49	661,601

Table 2. Resultant daily Shrinkage Quantity values to apply from the 1st Oct 2013 to 31st Mar 2014

3 Development of Proposal

The LDZ Shrinkage quantities reflect the losses associated with leakage, theft of gas and gas used in the operation of the system. A brief description of each of these elements is outlined below.

3.1 Leakage

Leakage from the distribution system accounts for the majority of overall leakage within an LDZ and is attributable to gas leakage from mains and services. The leakage estimate has been derived from leakage rates obtained

from the 2002/03 National Leakage Test programme (carried out by Transco) combined with the following network¹ specific information;

- forecasted mains replacement up to the end of March 2013;
- the annual average system pressure in each network forecasted over Formula Year 1314;
- the measured concentration of Monoethylene Glycol (MEG) joint treatment chemical in the gas

In addition, leakage and operational venting may occur from Above Ground Installations (AGIs). During 2003, Transco completed a survey of these sites.

Leakage, in terms of cubic metres of gas, is converted into energy by use of the flow-weighted average CVs (measured in MJ / m³) that are detailed within the Initial Proposals.

3.2 Operational Usage (also known as Own Use Gas)

Own Use Gas (OUG), under the new UNC shrinkage regime, is now treated as a consolidated quantity which is estimated by applying an OUG factor to forecasted demand for the Formula Year.

The OUG factor Scotia Gas Networks proposes to use is the national average of 0.0113% which was determined by Advantica in 2002 and was verified by subsequent research in 2006 – the results of this research being presented to the Shrinkage Forum on Thursday 22nd June 2006.

This research stated that pre-heater efficiencies lie between 53-69%. This implies that the national factor calculated by their model is overstated, as this is based on a lower efficiency of 50%. However Scotia Gas Networks has used this national factor of 0.0113% to determine its estimated 2013/14 OUG quantities – which are shown in table 1, on page 3.

3.3 Theft of Gas

As with Own Use Gas – Theft of Gas (TOG), under the new UNC regime, is now treated as a consolidated quantity which is estimated by applying a TOG factor to forecasted demand for the Formula Year.

The split of actual theft that transporter and shippers are responsible for varies year on year and recent history indicates much lower levels of Transporter theft than the 2007 statistics.

Therefore we do not propose, at this time, to recommend varying our Theft of Gas split from the current national agreement - that GDNs assume responsibility for Theft of Gas equal to 0.02% of LDZ Consumption.

¹ Network in this context relates to physical interconnected pipe systems, not Scotia Gas Networks administrative structure.

The TOG factor of 0.02% has been used to determine SGN's estimated 2013/14 TOG quantities which are shown in table 1 (on page 3).

SGN recognise that the quantification of the level of theft and proportion attributable to Transporters remains under review – both in the Shrinkage Gas Forum and Theft of Gas Forum.

4 Scotia Gas Networks Opinion

We believe that the proposed Shrinkage Quantities are consistent with the objective of using the best available information to estimate the LDZ Shrinkage for the period from 1 April 2013 to 31 March 2014.

5 Extent to which the Proposal would better facilitate the relevant objectives

The proposal provides SGN's best forecast of the level of LDZ Shrinkage Quantities for the Formula Year 2013/14. The proposal is based on robust methodologies, the best information available and takes cognisance of the feedback received from Users.

This proposal is intended to further the efficient and economic operation of the system through more appropriate cost targeting and also facilitates the comparison of Transporter performance.

6 The implications for Scotia Gas Networks of implementing the Proposal

Including:

a) Implications for the operation of the System:

SGN is unaware of any such implications that would result from implementing this proposal.

b) Development, capital cost and operating cost implications:

SGN is proposing a change to the LDZ Shrinkage Quantities which will correspond to a reduction in operating costs, assuming gas prices remain at their current levels.

c) Extent to which it is appropriate for Scotia Gas Networks to recover the costs, and proposal for the most appropriate method for Scotia Gas Networks to recover the costs:

Recovery of costs for shrinkage gas forms part of SGN's allowed revenue. The principles behind the recovery of shrinkage costs are set out in Ofgem's Final Proposals for the current eight year price control period.

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

The proposal is consistent with the establishment and operation of Distribution Network specific transportation charging formula.

The implementation of this proposal offers the prospect of real savings for consumers through the operation of the principle of comparative regulation.

7 The implications of implementing this Proposal for Users

This proposal improves the equitability and accuracy of cost targeting for Users.

8 Analysis of any advantages or disadvantages of implementation of the Proposal

Advantages: Better reflective of the actual system usage and losses with improved cost targeting.

Disadvantages: SGN is not aware of any disadvantages.

9 User Representations

N/A

10 Programme of works required as a consequence of implementing the Proposal

The only required modification is the input of LDZ daily Shrinkage quantity values into GEMINI.

11 Proposed implementation timetable (including timetable for any necessary information systems changes)

If no disapproval notice is issued beforehand, it will be our intention to implement revised Shrinkage Quantity values from 06:00 hrs on the 1st October 2013.

12 Recommendation concerning the implementation of the Proposal

We recommend that the proposed LDZ daily Shrinkage Quantities will be implemented with effect from **06:00 hrs on 1 October 2013**.

13 Scotia Gas Networks Proposal

This report contains our proposal for the LDZ daily Shrinkage Quantities for 1st Oct 2013 to 31st March 2014. In summary, we propose that the LDZ Shrinkage Quantities should be set at the levels indicated in table 2, on page 3 of these proposals.