

# SGN's Shrinkage Initial Proposals Gas Year 2008/09

**July 2008**



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# Revised Shrinkage Arrangements

- Shrinkage is gas lost from the system due to leakage, theft of gas and gas used in the operation of the system
- Shrinkage is no longer deemed to be linked to throughput. It is to be estimated for each gas year as a quantity rather than a factor – as of October 2008
- Consequently shrinkage is to be procured as a fixed daily LDZ shrinkage quantity throughout the Gas Year
- For the 2008-13 PCR Ofgem has set a fixed volumetric allowance for each LDZ
- Additionally from October 2008 the gas reference price - for calculating the shrinkage allowance - will be the day ahead price
- There is no longer a need for an 'uplift' for the costs of balancing
- Thus from October 1<sup>st</sup> 2008;

Shrinkage allowance = allowed shrinkage quantity \* day ahead gas reference price

- Scottish Independent Networks of Thurso, Wick, Campbeltown, Oban and Stranraer now have shrinkage quantities detailed separately – in line with Section A paragraph 1.7.4 (a) of the UNC

# Leakage - background

- Leakage is now estimated on a yearly quantity basis and can be split into the following 3 categories;
  1. Distribution mains (including service pipes)
  2. Above Ground Installations (AGIs)
  3. Other losses resultant from specific events
- The vast majority of leakage is from distribution mains – mainly from the low pressure networks.
- Distribution mains leakage is calculated by multiplying the annual average mains pressure in each network by the main and service pipe leakage factors, determined by the 2002/03 national leakage Test programme, and the relative lengths of mains / numbers of services in each network. Where applicable the leakage factors are adjusted to take account of the concentration of MEG
- In the twelve months since we published initial Shrinkage Factor proposals for the 2007/08 Gas Year, around 1024 km of metallic gas main and associated metallic gas service pipes have been replaced

# Leakage – average system pressures

Low pressure mains and service Average System Pressures (Polyethylene systems excluded) are presented for 2008/09 initial proposals with 2007/08 for comparison purposes. Scottish Independent Networks were not detailed in the 2007/08 proposals;

LDZ	Average Systems Pressure (mbar)	
	2007/08	2008/09
Scotland	28.1	28.53
Thurso	-	29.83
Wick	-	30.79
Campbeltown	-	29.54
Oban	-	31.48
Stranraer	-	30.45
South East	27.48	27.26
Southern	31.87	31.61

# Leakage – quantities

LDZ	2008/09 Total Yearly Leakage	
	Tonnes	GWh
Scotland	17,763	269
Thurso	12.36	0.19
Wick	7.66	0.12
Campbeltown	6.29	0.1
Oban	18.40	0.28
Stranraer	22.52	0.34
South East	28,671	426.6
Southern	19,230	286.8

# Own Use Gas - background

- Own Use Gas (OUG) is gas used for pre-heating natural gas to avoid it freezing when it undergoes an isenthalpic expansion due to its pressure being reduced at an NTS offtake or Local Transmission System regulator site
- OUG, under the new UNC regime, is now treated as a consolidated quantity which is estimated by applying a OUG factor to the forecasted demand for the gas year
- The OUG factor which SGN proposes to use is the National Average of 0.0113% - which was determined by Advantica in 2002 and verified by subsequent research in 2006

# Own Use Gas - quantities

LDZ	2008/09 Yearly Own Use Gas	
	Tonnes	GWh
Scotland	435	7
Thurso	0.37	0.0057
Wick	0.35	0.0053
Campbeltown	0.25	0.0039
Oban	0.26	0.0039
Stranraer	0.97	0.015
South East	522	8
Southern	339	5

# Theft of Gas - background

- Theft of Gas (TOG) is gas illegally taken upstream of the customer control valve and downstream where there is no shipper contract with the end-user
- As with OUG – TOG, under the new UNC regime, is now treated as a consolidated quantity which is estimated by applying a OUG factor to the forecasted demand for the gas year
- The TOG factor which SGN proposes to use is 0.02% - in line with the proposed level at the Shrinkage Gas Forum on 15<sup>th</sup> August 2005

# Theft of Gas - quantities

LDZ	2008/09 Yearly Theft of Gas	
	Tonnes	GWh
Scotland	770	12
Thurso	0.7	0.010
Wick	0.6	0.0094
Campbeltown	0.5	0.0068
Oban	0.5	0.0069
Stranraer	1.7	0.026
South East	924	14
Southern	601	9

# Overall Shrinkage Quantities

Proposed yearly shrinkage quantities and resultant daily shrinkage quantities to be procured;

LDZ	Proposed Yearly Shrinkage Quantities 2008/09 (GWh)	Resultant Fixed Daily Shrinkage Quantities 2008/09 (kWh)
Scotland	287	787,000
Thurso	0.20	557
Wick	0.13	358
Campbeltown	0.11	290
Oban	0.29	793
Stranraer	0.38	1046
South East	448	1,227,637
Southern	301	824,289

# Contacts

- Should you wish to discuss these initial proposals please contact;

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