NATIONAL GRID

NTS Shrinkage Incentive
Ex-Ante Baseline Values Statement
For 2016/17

September 2015

ABOUT THIS DOCUMENT

This document sets out baseline value targets that National Grid Gas plc ("National Grid") in its role as holder of the Gas Transporter Licence in respect of the NTS ("the Licence") is required to publish in accordance with the NTS Shrinkage Incentive Methodology Statement for Formula Year 2016/17.

This document will be updated and published five times for 2016/17:

- June 2015 (Initial Publication)
  - UAG baseline volumes for Q2 2016
  - CFU baseline volumes for all quarters in Formula Year 2016/17
  - CV shrinkage baseline volumes for all quarters in Formula Year 2016/17
- September 2015 (Update)
  - UAG baseline volumes for Q3 2016
- December 2015 (Update)
  - UAG baseline volumes for Q4 2016
- March 2016 (Update)
  - UAG baseline volumes for Q1 2017
- July 2017 (Update)
  - Adjusted target volume
    - CFU adjusted target volume
    - CV shrinkage adjusted target volume

A separate document will exist for each incentive year.

An electronic version of this publication can be found at the following internet page: http://www2.nationalgrid.com/uk/industry-information/gas-system-operator-incentives/nts-shrinkage

If you require further details about any of the information contained within this document or have comments on how this document might be improved please contact Andrew Smith, Gas Incentives team on 01926 655587 or at Andrew.Smith62@nationalgrid.com or at:

Gas Incentives
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

NTS Shrinkage Incentive Ex-Ante Baseline Values Statement

For

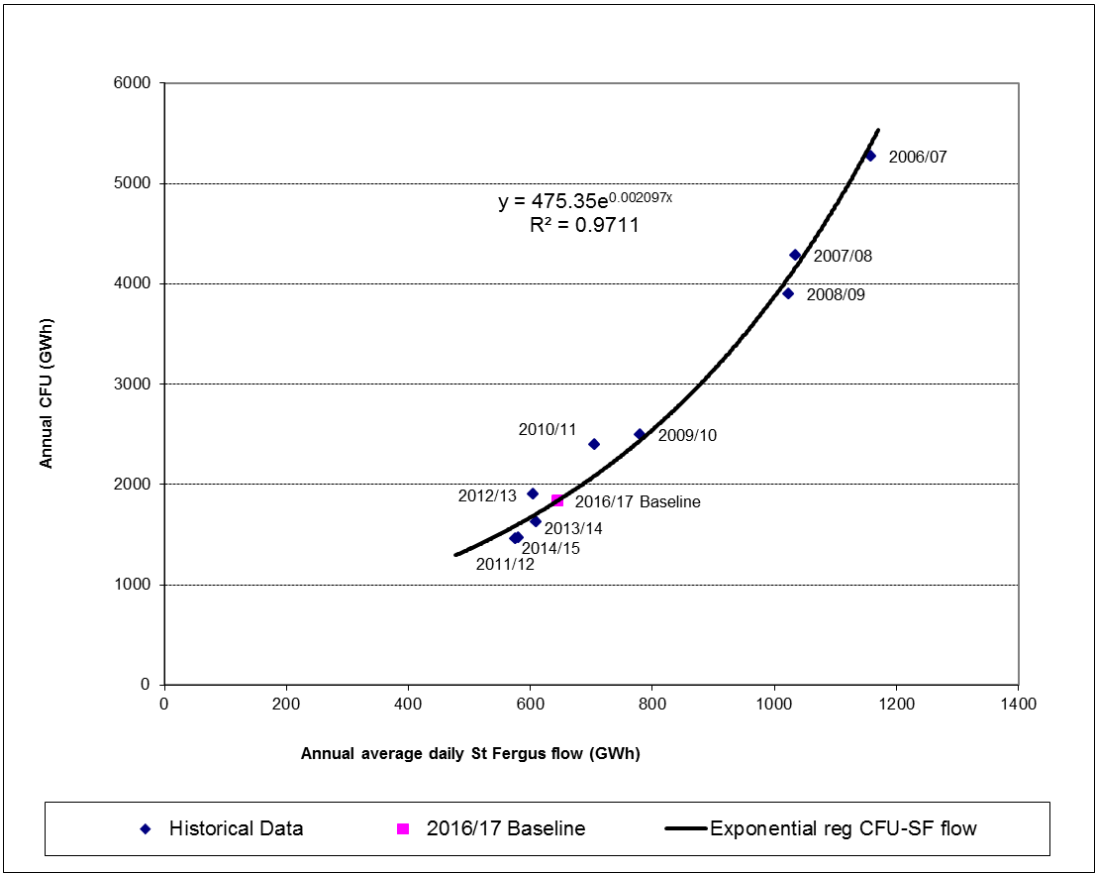
Incentive Year 2016/17

BASELINE VOLUMES – Compressor Fuel Usage (CFU)

STEP 1

The relationship between flow at the St Fergus ASEP and total CFU, using data from 2006/07 to 2014/15 inclusive, is:

(A) Total CFU (GWh) = $475.35 * \exp^{0.002097 * \text{Daily Average St Fergus Flow}}$



STEP 2

The forecast flow at the St Fergus ASEP for 2016/17 is:

(B) **645** GWh/day

Inserting the forecast flow at St Fergus ASEP into equation (A) gives a total CFU baseline volume of:

(C) **1837** GWh

STEP 3
The quarterly CFU volumes for 2014/15 were:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh (Gas Equivalent)	**214**	**175**	**421**	**660**	**1470**
%	**15%**	**12%**	**29%**	**45%**	**100%**

Applying the above quarterly percentages to the total CFU baseline volume (C) gives the following quarterly CFU baseline volumes for 2016/17:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh (Gas Equivalent)	**268**	**218**	**526**	**825**	**1837**

STEP 4
Applying the prevailing view of electric compressor replacement, along with historical information of the split between gas and electric compressor usage, gives the following split of quarterly CFU baseline volumes between electricity and gas for 2016/17:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
Gas GWh	**64**	**36**	**256**	**413**	**769**
Elec GWh	**68**	**61**	**90**	**137**	**356**

Note – electricity energy usage values in this table are one third of the electricity (gas equivalent) energy values

BASELINE VOLUMES - CALORIFIC VALUE SHRINKAGE
The quarterly CV shrinkage baseline volumes for 2016/17 are as follows:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh	**26.8**	**26.8**	**26.8**	**26.8**	**107.2**

BASELINE VOLUMES – UNACCOUNTED FOR GAS (UAG)
The quarterly UAG baseline volume targets for Q2 2016 and Q3 2016 are:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh	**331**	**756**	*** Dec 2015**	*** Mar 2016**	*** Mar 2016**

** Indicates when the UAG Baseline Volume targets will be published*

ENERGY EFFICIENCY VOLUMES – COMPRESSOR FUEL USE
The annual CFU energy efficiency adjustment volumes for 2016/17 will be published in July 2017, following calculation and audit.

ENERGY EFFICIENCY VOLUMES – CALORIFIC VALUE SHRINKAGE
The CV shrinkage energy efficiency adjustment volumes for 2016/17 will be published in July 2017, following calculation and audit.