

# **NATIONAL GRID**

## **NTS Shrinkage Incentive Ex-Ante Baseline Values Statement For 2017/18**

**September 2016**

## 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 2017/18.

This document will be updated and published five times for 2017/18:

- June 2016 (Initial Publication)
  - UAG & CVS baseline volumes for Q2 2017
  - CFU baseline volumes for all quarters in Formula Year 2017/18
- September 2016 (Update)
  - UAG & CVS baseline volumes for Q3 2017
- December 2016 (Update)
  - UAG & CVS baseline volumes for Q4 2017
- March 2017 (Update)
  - UAG & CVS baseline volumes for Q1 2018
- July 2018 (Update)
  - Energy Efficiency Variance CFU
  - Energy Efficiency Variance for CVS

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 could be improved, please contact Soyeb Kavla at:

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# NTS Shrinkage Incentive Ex-Ante Baseline Values Statement

For

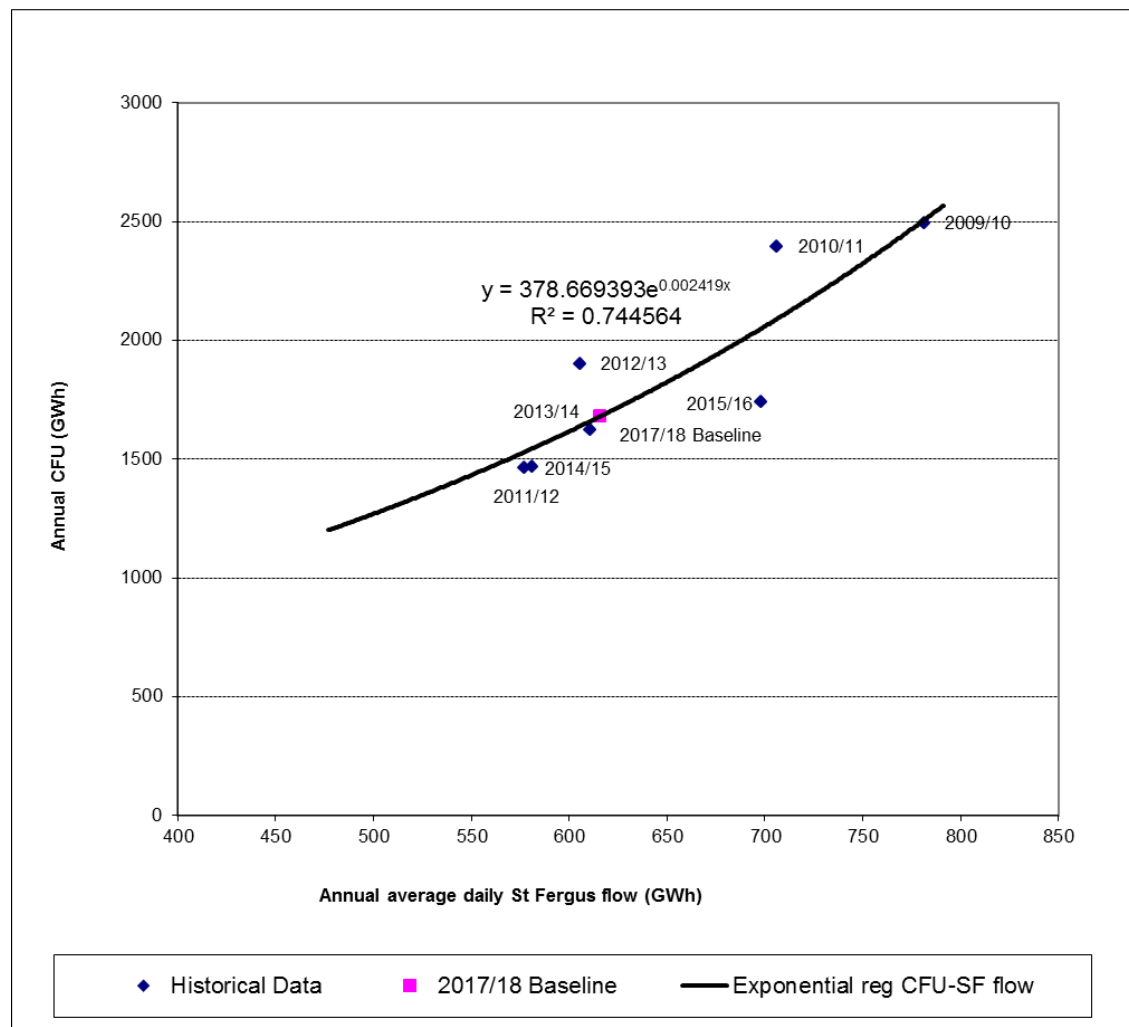
Incentive Year 2017/18

## BASELINE VOLUMES – Compressor Fuel Usage (CFU)

### STEP 1

The relationship between flow at the St Fergus ASEP and total CFU, using data from 2009/10 to 2015/16 inclusive, is:

$$(A) \text{ Total CFU (GWh)} = 378.67 * \exp^{0.002419 * \text{Daily Average St Fergus Flow}}$$



## STEP 2

The forecast flow at the St Fergus ASEP for 2017/18 is:

(B) **616 GWh/day**

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

(C) **1681 GWh**

## STEP 3

The quarterly CFU volumes for 2015/16 were:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh (Gas Equivalent)	<b>420</b>	<b>273</b>	<b>432</b>	<b>613</b>	<b>1739</b>
%	<b>24%</b>	<b>16%</b>	<b>25%</b>	<b>35%</b>	<b>100%</b>

Applying the above quarterly percentages to the total CFU baseline volume (C) gives the following quarterly CFU baseline volumes for 2017/18:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh (Gas Equivalent)	<b>406</b>	<b>264</b>	<b>417</b>	<b>593</b>	<b>1681</b>

## 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 2017/18:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
Gas GWh	<b>166</b>	<b>115</b>	<b>144</b>	<b>275</b>	<b>699</b>
Elec GWh	<b>80</b>	<b>50</b>	<b>91</b>	<b>106</b>	<b>327</b>

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

## BASELINE VOLUMES - UNACCOUNTED FOR GAS (UAG) & CALORIFIC VALUE SHRINKAGE (CVS)

The quarterly UAG & CVS baseline volume for Q3 2017 is as follows:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh	<b>483</b>	<b>601</b>	<b>*Dec 2016</b>	<b>*Mar 2017</b>	<b>*Mar 2017</b>

*\*Indicates when the UAG & CVS Baseline Volume targets will be published*

## ENERGY EFFICIENCY VOLUMES – COMPRESSOR FUEL USE

The annual CFU energy efficiency adjustment volumes for 2017/18 will be published in July 2018, following calculation and audit.