NATIONAL GRID

NTS Shrinkage Incentive
Ex-Ante Baseline Values Statement
For 2019/20

June 2018

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 2019/20.

This document will be updated and published five times for 2019/20:

- June 2018 (Initial Publication)
  - UAG & CVS baseline volumes for Q2 2019
  - CFU baseline volumes for all quarters in Formula Year 2019/20
- September 2018 (Update)
  - UAG & CVS baseline volumes for Q3 2019
- December 2018 (Update)
  - UAG & CVS baseline volumes for Q4 2019
- March 2019 (Update)
  - UAG & CVS baseline volumes for Q1 2020
- July 2020 (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: https://www.nationalgrid.com/uk/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:

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NTS Shrinkage Incentive Ex-Ante Baseline Values Statement

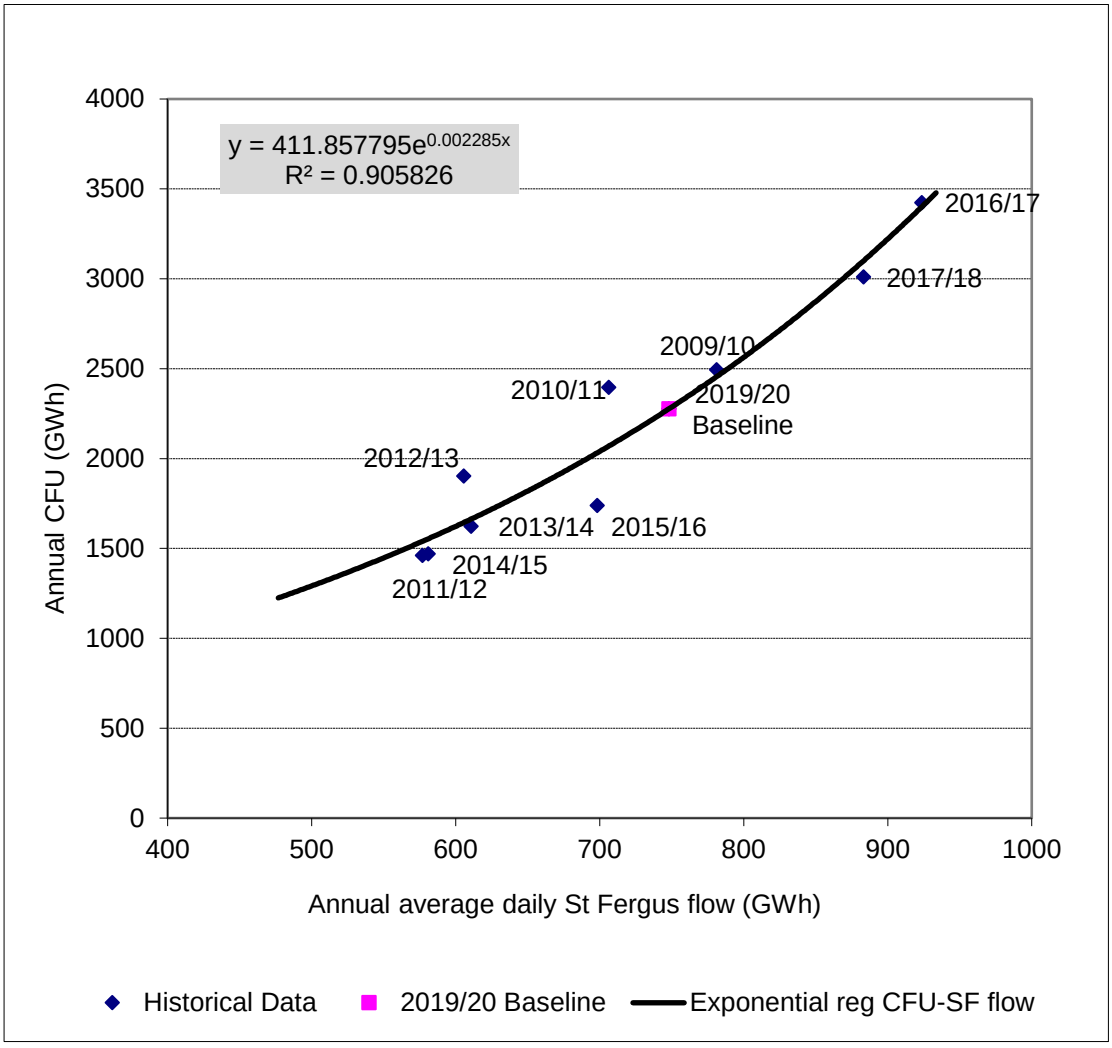
For

Incentive Year 2019/20

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 2017/18 inclusive, is:

Total CFU (GWh) = 411.857795. x exp $^{0.002285 * \text{Daily Average St Fergus Flow}}$



STEP 2
The forecast flow at the St Fergus ASEP for 2019/20 is:

(B) **748** GWh/day

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

(C) **2276** GWh

STEP 3
The quarterly CFU volumes for 2017/18 were:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh (Gas Equivalent)	**499**	**619**	**886**	**1007**	**3011**
%	**17%**	**21%**	**29%**	**33%**	**100%**

Applying the above quarterly percentages to the total CFU baseline volume (C) gives the following quarterly CFU baseline volumes for 2019/20:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh (Gas Equivalent)	**377**	**468**	**670**	**761**	**2276**

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 2019/20:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
Gas GWh	**209**	**258**	**430**	**510**	**1407**
Elec GWh	**56**	**70**	**80**	**84**	**290**

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 Q2 2019 is as follows:

	Q2 Apr-Jun	Q3 Jul-Sep	Q4 Oct-Dec	Q1 Jan-Mar	TOTAL
GWh	**226**	***Sep 2018**	***Dec 2018**	***Mar 2019**	***Mar 2019**

**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 2019/20 will be published in July 2020, following calculation and audit.