Special Condition 3D: NTS System Operator external incentives, costs and revenues

Introduction

3D.1 The purpose of this condition is to set out the scope and methods for the determination of the level of 'external' costs and revenues that the Licensee is entitled to recover including as a consequence of the application of a number of gas system operator external incentive schemes.

PART A External cost incentive revenue ($SOOIRC_t$)

(a) Principal formula

3D.2 For each Formula Year t, for the purposes of Part C (Calculation of Maximum NTS System Operation Revenue ($SOMR_t$)) of Special Condition 3A (Restriction of NTS System Operation Revenue), the maximum external cost incentive revenue allowed to the Licensee (£m) in respect of Formula Year t ($SOOIRC_t$) is derived in accordance with the following formula (in this condition, the "Principal Formula"):

$$SOOIRC_t = SC_t + OMC_t + RBC_t + SIR_t + OMIR_t + RBIR_t + QDFIR_t + GHGIR_t + GHGC_t + MIR_t + GHGIM_t$$

3D.3 In the Principal Formula:

SC_t means the total costs incurred by the Licensee (£m) in Formula Year t in respect of system costs as derived in accordance with the following formula:

$$SC_t = \sum_q \left[GC_{t,q} + ECC_{t,q} \right]$$

where:

$\sum_q$ means the sum over all Relevant Quarter Years q in the relevant Formula Year t.

$GC_{t,q}$ means the total costs incurred by the Licensee (£m), less any revenues received from third parties in respect of Relevant Quarter Year q in Formula Year t in the management of NTS Shrinkage (which has the meaning given to that term in the network code) other than those payments included in the calculation of $ECC_{t,q}$.

$ECC_{t,q}$ means the total costs (£m) incurred by the Licensee in respect of Relevant Quarter Year q in Formula Year t in procuring electricity for the purposes of operating Electric Compressors.

OMC_t means the total costs incurred by the Licensee (£m) in respect of Formula Year t in respect of the procurement of availability and utilisation of Operating Margins services for the purposes of satisfying Operating Margins Requirements (having the meaning given to those terms in the network code) including all capacity fees, gas delivery service fees, standby fees and costs associated with reprofiling, withdrawing and injecting gas into and out of gas storage facilities and costs that may arise as a result of the difference between the Operating Margins WACOG and Net Margins WACOG (as calculated in accordance with network code) in the event of service utilisation multiplied by the relevant utilisation volume.

RBC_t means an amount (£m) equal to the revenue equivalent to the net residual balancing costs incurred by the Licensee in respect of Formula Year t and shall be equal to the sum of the Basic Net Neutrality Amount and the Adjustment Neutrality Amount (having the meanings given to each of those terms in the network code) across all Days in Formula Year t.

SIR_t means the NTS Shrinkage Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.4 of this condition.

$OMIR_t$ means the Operating Margins Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.25 of this condition.

$RBIR_t$ means the Residual Gas Balancing Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.26 of this condition.

$QDFIR_t$ means the Quality of Demand Forecasting Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.33 of this condition.

$GHGIR_t$ means the Greenhouse Gas Emissions Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.37 of this condition.

$GHGC_t$ means the efficient Greenhouse Gas Emissions Project Costs (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.38 of this condition.

MIR_t means the Maintenance Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.40 of this condition.

GHGIMt means the Greenhouse Gas Emissions Investigation Mechanism value (£m) in respect of Formula Year t as derived in accordance with paragraphs 3D.25 to 3D.28 of this condition.

PART B NTS Shrinkage Incentive

(a) The NTS Shrinkage Incentive Revenue (SIR_t)

3D.4 For the purposes of the Principal Formula, SIR_t (£m) in respect of Formula Year t commencing on 1 April 2013 and each subsequent Formula Year t until 31 March 2021 is derived in accordance with the following formula:

if $SIT_t \geq SCMR_t$, then:

$$SIR_t = Min[USF_t \times (SIT_t - SCMR_t), CAP_t]$$

otherwise:

$$SIR_t = Max[DSF_t \times (SIT_t - SCMR_t), COL_t]$$

3D.5 In the above formula for SIR_t:

SIT_t means the NTS shrinkage incentive target (£m) as derived in accordance with paragraph 3D.6 of this condition.

$SCMR_t$ means the NTS shrinkage incentive cost performance measure in respect of Formula Year t as derived in accordance with the following formula:

$$SCMR_t = SC_t + MR_t$$

where:

SC_t has the meaning set out in paragraph 3D.3 of this condition.

MR_t means the net amount of revenues received by the Licensee (£m) due to the reconciliation of Measurement Errors (as defined in the network code OAD D1.2.1) and/or meter errors (as described in the network code TPD M1.9) in respect of Formula Year t commencing 1 April 2009 and each subsequent Formula Year t.

$USF_{t,}$ means the upside sharing factor in respect of Formula Year t as set out in Table 1 below.

DSF_t means the downside sharing factor in respect of Formula Year t as set out in Table 1 below.

CAP_t means the maximum shrinkage incentive revenue (£m) in respect of Formula Year t as set out in Table 1 below.

COL_t means the minimum shrinkage incentive revenue (£m) in respect of Formula Year t as set out in Table 1 below.

Table 1

	For Formula Year t
USF_t	0.45
DSF_t	0.45
CAP_t (£m)	7
COL_t (£m)	-7

(b) The NTS Shrinkage Incentive Target

3D.6 For the purposes of paragraph 3D.5 of this condition, SIT_t (£m) is derived in accordance with the following formula:

$$SIT_t = EPT_t + EEPTA_t + TA_t + OSC_t$$

where:

EPT_t means the NTS shrinkage energy procurement target including swing allowance (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.7 of this condition.

$EEPTA_t$ means the NTS shrinkage energy efficiency performance target adjustment (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.14 of this condition.

TA_t means the Transmission Network Use of System (TNUoS) charges allowance (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.15 of this condition.

OSC_t means other shrinkage costs (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.16 of this condition.

(c) Energy procurement target

3D.7 For the purposes of paragraph 3D.6 of this condition, EPT_t (£m) is derived in accordance with the following formula:

$$EPT_t = \sum_{t,q}\left(\left(\frac{FEVT_{t,q} \times FECRP_{t,q}}{1000}\right) + \left(\frac{FGVT_{t,q} \times FGCRP_{t,q}}{100}\right)\right) + \sum_{t,w}\left(\left(\frac{PEVT_{t,w} \times PECRP_{t,w}}{1000}\right) + \left(\frac{PGVT_{t,w} \times PGCRP_{t,w}}{100}\right)\right) + SCA_t$$

where:

$\sum_{t,q} x_{t,q}$ means the sum of x over all Relevant Quarter Years q in Formula Year t.

$\sum_{t,w} x_{t,w}$ means the sum of x over all relevant weeks w in Formula Year t.

$FEVT_{t,q}$ means the forward electricity volume target (GWh) in respect of Relevant Quarter Year q of Formula Year t determined in accordance with the NTS Shrinkage Incentive Methodology Statement. For the avoidance of doubt, where relevant week w falls within two different Relevant Quarter Years q, $FEVT_{t,q}$ for a particular Day d shall be equal to the value for the Relevant Quarter Year q within which the relevant Day d occurs.

$FECRP_{t,q}$ means the forward electricity cost reference price (£/MWh) in respect of Relevant Quarter Year q of Formula Year t as derived in accordance with paragraph 3D.11 of this condition.

$FGVT_{t,q}$ means the forward gas volume target (GWh) in respect of Relevant Quarter Year q of Formula Year t determined in accordance with the NTS Shrinkage Incentive Methodology Statement. For the avoidance of doubt, where relevant week w falls within two different Relevant Quarter Years q, $FGVT_{t,q}$ for a particular Day d shall be equal to the value for the Relevant Quarter Year q within which the relevant Day d occurs.

$FGCRP_{t,q}$ means the forward gas cost reference price (p/kWh) in respect of Relevant Quarter Year q of Formula Year t as derived in accordance with paragraph 3D.8 of this condition.

$PEVT_{t,w}$ means the prompt electricity volume target (GWh) in respect of relevant week w of Formula Year t as derived in accordance with the following formula:

$$PEVT_{t,w} = \sum_{d} \left(\left(\frac{\sum_{d} OEV_{t,w,d}}{7} \right) - \frac{FEVT_{t,q}}{nq} \right)$$

where:

$\sum_{d} x_{t,w,d}$ means the sum of x over all Days d in relevant week w in Formula Year t.

$OEV_{t,w,d}$ means the volume of electricity (GWh) used by the Licensee for the purposes of operating Electric

Compressors on relevant Day d in relevant week w in Formula Year t.

nq means the number of Days in the Relevant Quarter Year q in which Day d occurs.

$PECRP_{t,w}$ means the prompt electricity cost reference price (£/MWh) in respect of relevant week w of Formula Year t as derived in accordance with paragraph 3D.13 of this condition.

$PGVT_{t,w}$ means the prompt gas volume target (GWh) in respect of relevant week w of Formula Year t as derived in accordance with the following formula:

$$PGVT_{t,w} = \sum_{d} \left(\left(\frac{\sum_{d} OGV_{t,wd}}{7} \right) - \frac{FGVT_{t,q}}{nq} \right)$$

where:

$\sum_{d} x_{t,w,d}$ means the sum of x over all Days in relevant week w in Formula Year t.

$OGV_{t,w,d}$ means the volume of gas (GWh) used by the Licensee for the purposes of provision of NTS Shrinkage (which has the meaning given to that term in the network code) on relevant Day d in relevant week w in Formula Year t.

nq means the number of Days in the Relevant Quarter Year q in which Day d occurs.

$PGCRP_{t,w}$ means the prompt gas cost reference price (p/kWh) in respect of relevant week w of Formula Year t as derived in accordance with paragraph 3D.10 of this condition;

SCA_t means the swing cost allowance (£m) in respect of Formula Year t as derived in accordance with the following formula:

$SCA_t = 2 \times RPIF_t$

where:

$RPIF_t$ is the price index adjustment factor as derived in accordance with Part C of Special Condition 2A (Restriction of NTS Transportation Owner Revenue) of this licence.

NTS Shrinkage Incentive Methodology Statement

means the NTS Shrinkage Incentive Methodology Statement provided for in section (i) of this condition.

(d) The NTS Shrinkage gas cost reference price

3D.8 For the purposes of paragraph 3D.7 of this condition, $FGCRP_{t,q}$ (p/kWh) is derived in accordance with the following formula:

$$FGCRP_{t,q} = \frac{\sum_{d=a}^{b} GQFP_{t,q,d}}{nbq}$$

where:

$\sum_{d=a}^{b}$ means the sum over all business days d between business day a and business day b (both inclusive).

$GQFP_{t,q,d}$ means the mid-point of the forward bid/offer price (expressed in p/kWh) as quoted in the "ICIS Heren European Spot Gas Markets" published price reporting service (or any similar reporting service directed by the Authority) on business day d for a gas contract for delivery at the national balancing point (having the meaning given to that term in the published price reporting service) in respect of Relevant Quarter Year q in Formula Year t.

a means the first business day of the ninth month prior to the commencement of the Relevant Quarter Year q of Formula Year t.

b means the last business day of the month prior to the commencement of the Relevant Quarter Year q of Formula Year t.

nbq means the number of business days between a and b inclusive.

3D.9 For the purposes of paragraph 3D.7 of this condition, $FGCRP_{t,q}$ in respect of Relevant Quarter Year q of Formula Year t commencing 1 April 2021 shall be determined in accordance with paragraph 3D.8 of this condition unless an alternative method is identified which has been subject to consultation with industry parties, the conclusion of which occurs prior to 1 July 2020, or where this change is made with the prior consent of the Licensee.

3D.10 For the purposes of paragraph 3D.7 of this condition, $PGCRP_{t,w}$ (p/kWh) is derived in accordance with the following formula:

$$PGCRP_{t,w} = \frac{\sum_{d=y}^{z} GWFP_{t,w,d}}{nw}$$

where:

$\sum_{d=y}^{z}$ means the sum over all business days in the week prior to the commencement of week w of Formula Year t.

$GWFP_{t,w,d}$ means the mid-point of the forward bid/offer price (expressed in p/kWh) as quoted in the "ICIS Heren European Spot Gas Markets" published price reporting service (or any similar reporting service directed by the Authority) on business day d for the "working days next week" (WDNW) gas contract for delivery at the national balancing point (having the meaning given to that term in that published price reporting service) in respect of week w of Formula Year t.

y means the first business day of the week prior to the commencement of week w in Formula Year t.

z means the last business day of the week prior to the commencement of week w in Formula Year t.

nw means the number of business days between y and z inclusive.

(e) The NTS Shrinkage electricity cost reference price

3D.11 For the purposes of paragraph 3D.7 of this condition, $FECRP_{t,q}$ (£/MWh) is derived in accordance with the following formula:

$$FECRP_{t,q} = \frac{\sum_{d=a}^{b} EQFP_{t,q,d}}{nbqe}$$

where:

$\sum_{d=a}^{b}$ means the sum over all business days d between day a and day b (inclusive).

$EQFP_{t,q,d}$ means the mid-point of the forward bid/offer price (expressed in £/MWh) as quoted in the "ICIS Heren European Daily Electricity Markets" published price reporting service (or any similar reporting service directed by the Authority) on business day d for a baseload electricity contract for delivery in respect of Relevant Quarter Year q of Formula Year t.

a means the first business day of the ninth month prior to the commencement of the Relevant Quarter Year q of Formula Year t.

b means the last business day of the month prior to the commencement of the Relevant Quarter Year q of Formula Year t.

nbqe means the number of business days between a and b inclusive on which a forward bid/offer price is quoted in the "ICIS Heren European Daily Electricity Markets" published price reporting service (or any similar reporting service directed by the Authority) on business day d for a baseload electricity contract for delivery in respect of Relevant Quarter Year q of Formula Year t.

3D.12 For the purposes of paragraph 3D.7 of this condition, the forward electricity cost reference price (£/MWh) in respect of Relevant Quarter Year q of Formula Year t commencing 1 April 2021 ($FECRP_{t,q}$) shall be determined in accordance with paragraph 3D.11 of this condition unless an alternative method is identified which has been subject to consultation with interested parties, the conclusion of which occurs prior to 1 July 2020, or where this change is made with the prior consent of the Licensee.

3D.13 For the purposes of paragraph 3D.7 of this condition, $PECRP_{t,w}$ (£/MWh) is derived in accordance with the following formula:

$$PECRP_{t,w} = \frac{\sum_{d=y}^{z} EWFP_{t,w,d}}{nw}$$

where:

$\sum_{d=y}^{z}$ means the sum over all business days in the week prior to the commencement of week w of Formula Year t.

$EWFP_{t,w,d}$ means the mid-point of the forward bid/offer price (expressed in £/MWh) as quoted in the "ICIS Heren European Daily Electricity Markets" published price reporting service (or any similar reporting service directed by the Authority) on business day d for a baseload electricity contract for delivery in respect of week w of Formula Year t.

y means the first business day of the week prior to the commencement of week w in Formula Year t.

z means the last business day of the week prior to the commencement of week w in Formula Year t.

nw means the number of business days between y and z inclusive.

(f) The energy efficiency performance target adjustment

3D.14 For the purposes of paragraph 3D.6 of this condition $EEPTA_t$ (£m) is derived in accordance with the following formula:

$$EEPTA_t = \frac{WGRP_t \times (EEVCVS_t + EEVCFU_t)}{100}$$

$WGRP_t$ means the weighted gas reference price (p/kWh) in respect of Formula Year t as derived in accordance with the following formula:

$$WGRP_t = \frac{\sum_q (FGVT_{t,q} \times FGCRP_{t,q}) + \sum_w (PGVT_{t,w} \times PGCRP_{t,w})}{\sum_q FGVT_{t,q} + \sum_w PGVT_{t,w}}$$

where:

$\sum_q x_{t,q}$ means the sum of x over all Relevant Quarter Years q in Formula Year t.

$\sum_w x_{t,w}$ means the sum of x over all weeks w in Formula Year t.

$EEVCVS_t$ means the energy efficiency variance for calorific value shrinkage (GWh) in respect of Formula Year t determined in accordance with the NTS Shrinkage Incentive Methodology Statement.

$EEVCFU_t$ means the energy efficiency variance for energy for gas and electrically powered gas compression equipment (GWh) used by the Licensee to increase the pressure of gas in a part of the pipeline system to which this licence relates in respect of Formula Year t determined in accordance with the NTS Shrinkage Incentive Methodology Statement.

(g) Transmission Network Use of System (TNUoS) charges allowance

3D.15 For the purposes of paragraph 3D.6 of this condition, TA_t (£m) is derived in accordance with the following formula:

$$TA_t = \frac{\sum_s (PC_{t,s} \times TDT_{t,s})}{1{,}000{,}000}$$

where:

$\sum_s x$ means the sum of x over all Relevant Compressor Sites s in respect of Formula Year t.

$PC_{t,s}$ means the prevailing capacity as defined in the relevant connection agreements (kW) with effect from the relevant date set out in the relevant Bilateral Agreement (or in the Use of

System Supply Confirmation Notice) in respect of Relevant Compressor Site s in respect of Formula Year t.

$TDT_{t,s}$ means the TNUoS Demand Tariff (£/kW) in respect of Formula Year t and in respect of the charging zone in which the Relevant Compressor Site s is located, published by National Grid Electricity Transmission plc in its Statement of Use of System Charges at 1 April in Formula Year t or any other equivalent tariff or tariffs replacing it.

Bilateral Agreement and Use of System Supply Confirmation Notice

shall each have the meaning given to those terms in the electricity Connection and Use of System Code established under Condition 10 (Connection and Use of System Code (CUSC)) of the electricity transmission licence of National Grid Electricity Transmission plc.

(h) Other shrinkage costs

3D.16 For the purposes of paragraph 3D.6 of this condition, OSC_t (£m) is derived in accordance with the following formula:

$$OSC_t = CRCEES_t + EUETS_t + NEEC_t$$

where:

$CRCEES_t$ means the Carbon Reduction Commitment Energy Efficiency Scheme costs (£m) incurred by the Licensee in operating its electric compressors in respect of Formula Year t.

$EUETS_t$ means the net amount of costs (whether of a positive or negative value) incurred by the Licensee in respect of the European Union Emissions Trading System (£m) as a result of operation of its gas compressors in respect of Formula Year t.

$NEEC_t$ means the non-energy costs (£m) incurred by the Licensee in respect of Formula Year t as derived in accordance with the following formula:

$$NEEC_t = DUoS_t + SMC_t$$

where:

$DUoS_t$ means the Distribution Use of System costs (£m) in respect of Formula Year t to be incurred by the Licensee in operating its Electric Compressors as derived in accordance with the following formula:

$$DUoS_t = \sum_s \left[\mathrm{kVAC}_{t,s} + \mathrm{FC}_{t,s} + \mathrm{CC}_{t,s} + \mathrm{RPC}_{t,s} \right]$$

where:

$\sum_s x$ means the sum of x over all Relevant Compressor Sites s in respect of Formula Year t.

$\mathrm{kVAC}_{t,s}$ means the capacity charge including any excess capacity charges (£m) applicable to that Relevant Compressor Site s in respect of Formula Year t calculated as the Chargeable kVA specified in the electricity connection agreement for that site s multiplied by the relevant kVA tariff in respect of Formula Year t applicable to that site published in the "Use of System Charging Statement" (or otherwise made available) by the relevant electricity distribution network operator.

$\mathrm{FC}_{t,s}$ means the fixed charge (£m) applicable to that Relevant Compressor Site s in respect of Formula Year t as published in the "Use of System Charging Statement" (or otherwise made available) by the relevant electricity distribution network operator or any other equivalent applicable charge replacing it.

$\mathrm{CC}_{t,s}$ means the distribution use of system consumption charge (£m) for Relevant Compressor Site s in respect of Formula Year t calculated from the half-hourly metered consumption of electricity at that site multiplied by the relevant consumption tariff in respect of Formula Year t applicable to that site as published in the "Use of System Charging Statement" (or otherwise made available) by the relevant electricity distribution network operator or any other equivalent applicable charge replacing it.

$\mathrm{RPC}_{t,s}$ means the reactive power charge for Relevant Compressor Site s in respect of Formula Year t as published in the "Use of System Charging Statement" (or otherwise made available) by the relevant electricity distribution network operator or any other equivalent applicable charge replacing it.

SMC_t means the supplier and market charges (£m) incurred by the Licensee in Formula Year t in the provision of NTS Shrinkage and shall include (without limitation) costs

associated with trading gas and electricity and all invoiced charges for electricity procurement other than commodity charges (which cover the wholesale baseload and shape costs of electricity). These charges (without limitation) include Renewables Obligations costs, Assistance for Areas with High Electricity Distribution costs, Feed in tariff costs, Balancing Services Use of System costs, Climate Change Levy costs, supplier margins (including risk premiums), such other costs as may be levied on the market from time to time, subscription costs for published price reporting services as set out in paragraphs 3D.8, 3D.10, 3D.11 and 3D.13 of this condition, trading operations licence fees and credit management arrangement fees.

3D.17 For the avoidance of doubt for calculations relating to shrinkage electricity reference prices and electricity costs incurred by the Licensee, including (without limitation) the terms ECC_t, $FECRP_{t,q}$, $EQFP_{t,q,d}$, $PECRP_{t,w}$, $EWFP_{t,w,d}$, a Day is defined as a Settlement Day as defined in the Balancing and Settlement Code.

(i) The NTS Shrinkage Incentive Methodology Statement

3D.18 For the purposes of paragraph 3D.7 of this condition, the Licensee shall use reasonable endeavours to establish a methodology ("the NTS Shrinkage Incentive Methodology Statement") showing the methods by which, and the principles on which, the data mentioned in paragraph 3D.20 of this condition are to be determined as approved by the Authority.

3D.19 Prior to the commencement of the Formula Year commencing on 1 April 2013 and each subsequent Formula Year, the Licensee shall use reasonable endeavours to publish on its website the NTS Shrinkage Incentive Methodology Statement (or Statements) to apply in respect of that Formula Year.

3D.20 The NTS Shrinkage Incentive Methodology Statement will contain:

(a) for the purposes of paragraph 3D.7 of this condition, rules for the determination of $FGVT_{t,q}$ and the timetable for the publication of such values;

(b) for the purposes of paragraph 3D.7 of this condition, rules for the determination of $FEVT_{t,q}$ and the timetable for the publication of such values;

(c) for the purposes of paragraph 3D.14 of this condition, rules for the determination of $EEVCVS_t$ and the timetable for the publication of such values; and

(d) for the purposes of paragraph 3D.14 of this condition, rules for the determination of $EEVCFU_t$ and the timetable for the publication of such values.

3D.21 Unless the Authority otherwise directs in writing, the Licensee must use reasonable endeavours to publish a statement from an Independent Examiner by 31 July 2014 and by 31 July in each subsequent Formula Year in respect of Formula Year t-1, confirming that the Independent Examiner has carried out an examination of the application of the NTS Shrinkage Incentive Methodology Statement. Such examination shall include:

(a) examination of the analysis and formulae to confirm that the methodologies and rules have been correctly applied; and
(b) analysis of data flows to observe whether the values derived have been determined correctly in accordance with the methodology.

3D.22 Prior to the publication of the NTS Shrinkage Incentive Methodology Statement on the Licensee's website in respect of the Formula Year commencing on 1 April 2013 and prior to any modification to the NTS Shrinkage Incentive Methodology Statement the Licensee shall:

(a) consult interested parties on the NTS Shrinkage Incentive Methodology Statement and, where applicable, any proposed modification and allow them a period of not less than 28 days within which to make written representations; and
(b) furnish the Authority with a report setting out:
    (1) the original NTS Shrinkage Incentive Methodology Statement and any modification proposal;
    (2) the representations (if any) made by interested parties; and
    (3) any changes to the proposed NTS Shrinkage Incentive Methodology Statement and any proposed modification as a consequence of such representations

provided that where the Licensee has complied with the requirements of sub-paragraphs (a) and (b), it will not make any modification to the NTS Shrinkage Incentive Methodology Statement where the Authority has, within 28 days of the report being furnished to it under sub-paragraph (b) given a direction to the Licensee that the modification shall not be made.

3D.23 Notwithstanding the Licensee's ability to modify the NTS Shrinkage Incentive Methodology Statement as described in paragraph 3D.22 above, the Licensee will use reasonable endeavours to undertake a full review of the NTS Shrinkage Incentive Methodology Statement such that any consequential modification of such can be achieved prior to commencement of the Formula Year commencing on 1 April 2017.

3D.24 For the purposes of paragraph 3D.21of this condition, the following definition will apply:

Independent Examiner	means a person or persons nominated by and independent of the Licensee with the skills and knowledge to undertake an examination of the application of the NTS Shrinkage Incentive Methodology Statement.

(j) The Greenhouse Gas Emmissions Investigation Mechanism

3D.25 For the purposes of the Principal Formula, GHGIMt (£m) allowed to the Licensee in respect of Formula Year t commencing on 1 April 2018, shall be zero or as directed by the Authority for the purposes of paragraph 8I.9 of Special Condition 8I.

3D.26 The Licensee shall by 31 December 2017 provide a statement to the Authority setting out:

(a) how it has fulfilled the obligations pursuant to Special Condition 8I; and
(b) how the Greenhouse Gas Investigation Activities will ensure long term value for money for consumers.

3D.27 Upon receipt of the statement the Authority will determine the value of GHGIMt by assessing the extent to which the Greenhouse Gas Investigation Activities will ensure long term value for money for consumers, and if appropriate, shall issue a direction specifying the value of GHGMt by 31 March 2018 up to a maximum of £0.4m.

3D.28 For the purposes of this condition:

Greenhouse Gas Investigation Activities	has the meaning given to that term the activities specified in paragraphs 8I.10 of Special Condition 8I.

PART C Operating Margins Incentive Revenue ($OMIR_t$)

3D.25 For the purposes of the Principal Formula, $OMIR_t$, in respect of Formula Year t commencing on 1 April 2013 and each subsequent Formula Year t until 31 March 2021 shall take the value zero.

PART D Residual Gas Balancing Incentive Revenue ($RBIR_t$)

3D.26 For the purposes of the Principal Formula, $RBIR_t$ (£m) in respect of Formula Year commencing on 1 April 2013 and each subsequent Formula Year t until 31 March 2021 is derived in accordance with the following formula:

$$RBIR_t = \text{Min}\,[RBCAP_t, \text{Max}\,(STIP_t, RBF_t)]$$

3D.27 In the above formula for $RBIR_t$:

$RBCAP_t$ means the maximum residual gas balancing incentive revenue (£m) in respect of Formula Year t, and shall take the value £2m.

RBF_t means the minimum residual gas balancing incentive revenue (£m) in respect of Formula Year t, and shall take the value £-3.5m.

$STIP_t$ means the sum of the total daily incentive payments (£million) under the residual gas balancing incentive in respect of Formula Year t as derived in accordance with paragraph 3D.28 of this condition.

(a) The sum of the total daily incentive payments under the residual gas balancing incentive

3D.28 For the purposes of paragraph 3D.27 of this condition, $STIP_t$ (£m) in Formula Year t is derived in accordance with the following formula:

$$STIP_t = \frac{\sum_d DPIP_{t,d} + \sum_d DLIP_{t,d}}{1{,}000{,}000}$$

where:

$\sum_d$ means the sum across all Days d in Formula Year t.

$DPIP_{t,d}$ means the daily price incentive payment (£) in respect of Day d of Formula Year t as derived in accordance with paragraph 3D.29 of this condition.

$DLIP_{t,d}$ means the daily linepack incentive payment (£) in respect of Day d of Formula Year t as derived in accordance with paragraph 3D.31 of this condition.

(b) The daily price incentive payment

3D.29 For the purposes of paragraph 3D.28 of this condition, $DPIP_{t,d}$ (£) on Day d in Formula Year t shall depend on the value of $PPM_{t,d}$ and is derived in accordance with Table 2 below:

Table 2

For Formula Year t,	
$PPM_{t,d}$	$DPIP_{t,d}$
$0 \leq PPM_{t,d} \leq 5$	$1{,}500 – (PPM_{t,d} \times 1000)$
$5 < PPM_{t,d} < 75.667$	$-3{,}500 – (375 \times (PPM_{t,d} – 5))$
$75.667 \leq PPM_{t,d}$	-30,000

where:

$PPM_{t,d}$ means the daily price performance measure (%) in respect of Day d of Formula Year t as derived in accordance with paragraph 3D.30 of this condition.

(c) The daily price performance measure

3D.30 For the purposes of paragraph 3D.29 of this condition, $PPM_{t,d}$ is derived in accordance with the following formula:

$$PPM_{t,d} = \left(\frac{\left(TMIBP_{t,d} - TMISP_{t,d} \right)}{\left| SAP_{t,d} \right|} \right) \times 100$$

where:

$TMIBP_{t,d}$ means the price (p/kWh) which is equal to the highest market offer price (having the meaning given to that term in the network code) in relation to an eligible balancing action (having the meaning given to that term in the network code) excluding any locational actions taken in respect of Day d of Formula Year t unless the Licensee took no such eligible balancing action in respect of that Day in which case $TMIBP_{t,d}$ shall equal $SAP_{t,d}$.

$TMISP_{t,d}$ means the price (p/kWh) which is equal to the lowest market offer price (having the meaning given to that term in the network code) in relation to an eligible balancing action (having the meaning given to that term in the network code) excluding any locational actions taken in respect of Day d of Formula Year t unless the Licensee took no such eligible balancing action in respect of that Day in which case $TMISP_{t,d}$ shall equal $SAP_{t,d}$.

$SAP_{t,d}$ means the system average price (in p/kWh and having the meaning given to that term in the network code) in respect of Day d of Formula Year t.

(d) The daily linepack incentive payment

3D.31 For the purposes of paragraph 3D.28 of this condition, $DLIP_{t,d}$ (£) in respect of Day d in Formula Year t shall depend on the value of $LPM_{t,d}$ and is derived in accordance with Table 3 below:

Table 3

$\mathbf{LPM_{t,d}}$	$\mathbf{DLIP_{t,d}}$
$0 \leq LPM_{t,d} \leq LPUL_t$	$LDCAP_t$
$LPUL_t < LPM_{t,d} < LPT_t$	$LDCAP_t \times \left(\frac{LPT_t - LPM_{t,d}}{LPT_t - LPUL_t} \right)$
$LPM_{t,d} = LPT_t$	0
$LPLL_t > LPM_{t,d} > LPT_t$	$LDF_t \times \left(\frac{LPT_t - LPM_{t,d}}{LPT_t - LPLL_t} \right)$
$LPM_{t,d} \geq LPLL_t$	LDF_t

where:

$LPM_{t,d}$	means the daily linepack performance measure (mcm) in respect of Day d of Formula Year t as derived in accordance with paragraph 3D.32 of this condition.
LPT_t	means the linepack performance target (mcm) in respect of Formula Year t and shall take the value 2.8mcm.
$LPUL_t$	means the linepack upper band limit (mcm) in respect of Formula Year t and shall take the value 1.5mcm.
$LDCAP_t$	means the linepack daily cap amount (£) in respect of Formula Year t and shall take the value £4,000.
$LPLL_t$	means the linepack lower limit (mcm) in respect of Formula Year t and shall take the value 15mcm.
LDF_t	means the linepack daily floor amount (£) in respect of Formula Year t and shall take the value -£30,000.

(e) The daily linepack performance measure

3D.32 For the purposes of paragraph 3D.31 of this condition, $LPM_{t,d}$ is derived in accordance with the following formula:

$$LPM_{t,d} = Max\ [(OLP_{t,d} - CLP_{t,d}),\ (CLP_{t,d} - OLP_{t,d})]$$

where:

$OLP_{t,d}$	means the total NTS linepack in respect of Day d of Formula Year t as at 06:00 hours on Day d.
$CLP_{t,d}$	means the total NTS linepack in respect of Day d of Formula Year t as at 06:00 hours on Day d+1.
NTS linepack	means the volume of gas within the NTS as calculated by the Licensee in accordance with the methodology proposed by the Licensee for that purpose from time to time and approved by the Authority.

PART E Quality of Demand Forecasting Incentive Revenue ($QDFIR_t$)

3D.33 For the purposes of the Principal Formula, $QDFIR_t$ (£m) in respect of the Formula Year t is derived in accordance with the following formula:

$$QDFIR_t = QDAIR_t + QTFIR_t$$

3D.34 In the above formula for $QDFIR_t$:

$QDAIR_t$ means the Quality of Day Ahead Demand Forecasting Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.35 of this condition.

$QTFIR_t$ means the Quality of Two to Five Days Ahead Demand Forecasting Incentive Revenue (£m) in respect of Formula Year t as derived in accordance with paragraph 3D.36 of this condition.

(a) Quality of Day Ahead Demand Forecasting Incentive Revenue ($QDAIR_t$)

3D.35 For the purposes of paragraph 3D.33 of this condition, $QDAIR_t$ (£m) allowed to the Licensee in respect of the Formula Year t commencing on 1 April 2013 and each subsequent Formula Year t until 31 March 2021 is derived in accordance with Table 4 below:

Table 4

For Formula Year t	
$DAFIE_t$	**$QDAIR_t$**
$0 \leq DAFIE_t < DFA_t$	10
$DFA_t \leq DAFIE_t < 7.65 + DFA_t$	$10 - (1.111x (DAFIE_t - DFA_t))$
$7.65 + DFA_t \leq DAFIE_t < 9.35 + DFA_t$	$15-(1.7647x (DAFIE_t – DFA_t))$
$9.35 + DFA_t \leq DAFIE_t$	-1.5

where:

$DAFIE_t$ means the Day ahead demand forecasting incentivised average forecast error as derived in accordance with the following formula:

$$DAFIE_t = \sum_d \left(\left| DADF_d - AD_d \right| x \frac{AD_d}{\sum_d AD_d} \right)$$

where:

$\sum_d x$ means the sum of x for all Days d in the Formula Year t.

$DADF_d$ means the Day ahead forecast NTS throughput value (mcm) for all Days in Formula Year t published by the Licensee (in accordance with the network code) on its website not later than 14:00 hours at Day ahead (d-1) in respect of each Day of Formula Year t. Where the day ahead 14:00 forecast NTS throughput value is not published by 14:00 hours at Day ahead (d-1), the next forecast published on the Licensee's website for the Day concerned shall be used.

AD_d means Actual NTS Throughput (mcm) on a given Day d, calculated five Days following the Day (d+5), on each Day of Formula Year t.

DFA_t means the Day ahead demand forecasting adjustment in respect of Formula Year t as derived in accordance with the following formula:

$DFA_t = \text{Min}\,[DFSA_t\,,\,1]$

where :

$DFSA_t$ means the demand forecasting short-cycle storage adjustment in respect of Formula Year t as derived in accordance with the following formula:

$$DFSA_t = 0.038 \times (AIC_t - AIC_{t-1}) + (DFSA_{t-1} \times DFCI_t)$$

and for the Formula Year t commencing on 1 April 2012 shall take the value zero.

where:

AIC_t means the average annual capability to have gas injected (expressed in mcm/d) at Short-Cycle Storage Facilities connected to the NTS in respect of Formula Year t. In respect of the Formula Year t commencing on 1 April 2012 this shall take the value 30.3 and for all subsequent Formaula Years will be derived in accordance with the following formula:

$$AIC_t = \left[\frac{\sum_d ASF_{d,t}}{DIY_t} \right]$$

$ASF_{d,t}$ means the aggregate capability of any relevant Short-Cycle Storage Facilities connected to the NTS to have gas

injected (expressed in mcm/d) on Day d of Formula Year t as specified in the storage capacity notices submitted by the relevant Storage Operator to the Licensee (and updated from time to time) pursuant to the relevant Storage Connection Agreements.

$DFCI_t$ means the Demand Forecasting Adjustment Continuous Improvement Factor and in Formula Year t shall take the value 0.5.

DIY_t means the number of Days in Formula Year t.

Short-Cycle Storage Facility

means for the purposes of this condition a Storage Facility which regularly utilises its capability both to withdraw and inject gas into the facility on the same Day. The Licensee shall publish, and keep up to date, a list of sites that regularly utilise their capability both to withdraw and inject gas into the facility on the same Day on its website.

(b) Quality of Two to Five Days Ahead Demand Forecasting Incentive Revenue ($QTFIR_t$)

3D.36 For the purposes of paragraph 3D.33 of this condition, $QTFIR_t$ (£m) allowed to the Licensee in respect of Formula Year t commencing on 1 April 2015~~13~~ and each subsequent Formula Year t until 31 March 2018~~715~~ is derived in accordance with Table 5 below:

Table 5

For Formula Year t	
$TFIE_t$	**$QTFIR_t$**
$0 \leq TFIE_t \leq$ 15.07 ~~17.6~~	10 - (0.729927 ~~0.625~~ x $TFIE_t$)
15.07 ~~17.6~~ < $TFIE_t$	-1

where:

$TFIE_t$ means the two to five Days ahead demand forecasting incentivised average forecast error as derived in accordance with the following formula:

$$TFIE_t = \frac{\sum_{i=2}^{5} FE_{d-i}}{4}$$

where:

$\sum_{i=2}^{5} x_{d-i}$

means the sum of x_{d-i} for all i from i = 2 to i = 5 where for i = 2 the value of x_{d-i} means the value for two Days ahead of the Day and for i = 5 the value of x_{d-i} means the value for five Days ahead of the Day.

FE_{d-i} means the average forecast error (mcm) as derived in accordance with the following formula:

$$FE_{d-i} = \sum_{d} \left(\left| DF_{d-i} - AD_d \right| x \frac{AD_d}{\sum_{d} AD_d} \right) \qquad for \;\; i = 2, 3, 4 \; and \; 5$$

where:

$\sum_{d} x$ means the sum of x for all Days d in the Formula Year t.

DF_{d-i} means the demand forecast NTS throughput value (mcm) for all Days in Formula Year t published by the Licensee on its website not later than 16:00 hours at two, three, four and five Days ahead (d-2, d-3, d-4, d-5) in respect of each Day of Formula Year t. Where the two, three, four or five Days ahead 16:00 forecast NTS throughput values are not published by 16:00 hours at two, three, four or five Days ahead (d-2, d-3, d-4, d-5), the next forecast published on the Licensee's website for the gas Day concerned shall be used.

PART F Greenhouse Gas Emissions Incentive Revenue ($GHGIR_t$)

3D.37 For the purposes of the Principal Formula, $GHGIR_t$ (£m) allowed to the Licensee in respect of Formula Year t commencing on 1 April 2015~~3~~ and each subsequent Formula Year t until 31 March ~~2016~~ 2018 shall depend on the value of $VIPM_t$ and is derived in accordance with Table 6 below:

Table 6

$VIPM_t$	$GHGIR_t$
$VIPM_t \leq VIT_t$	0
$VIPM_t > VIT_t$	$[(VIT_t - VIPM_t) \times VIRP_t]/1{,}000{,}000$

where:

$VIPM_t$ means the venting incentive performance measure (in tonnes of natural gas) in respect of Formula Year t which shall be the aggregate amount of natural gas released to the atmosphere by Venting from all Relevant Compressors.

VIT_t means the venting incentive target (in tonnes of natural gas) in respect of Formula Year t and shall take the value as set out in Table 7 below:

Table 7

Formula Year	VIT_t
~~2013/14~~	~~2,917~~
2014/15	2,829
2015/16	2,744
2016/17	2,744
2017/18	2,744

$VIRP_t$ means the venting incentive reference price (in £/tonne of Natural GVented) in respect of Formula Year t as derived in accordance with the following formula:

$$VIRP_t = NTCP_t \times VF_t$$

where:

$NTCP_t$ means the Non Traded Carbon Price (in £/tCO2e) in respect of Formula Year t as derived in accordance with the following formula:

$$NTCP_t = \frac{\sum_{m=1}^{12} \left[NTMCP_{m,t,y} \times IF_{m,t,y} \right]}{12}$$

where:

$\sum_{m=1}^{12} \left[x_{m,t} \right]$ means the sum of $x_{m,t}$ for months m=1 to m=12 where m=1 is the first month of Formula Year t and m=12 is the last month of Formula Year t.

$NTMCP_{m,t,y}$ means the latest Non Traded Central Carbon Price (£/tCO2e) for month m in Formula Year t as published in advance of month m by the Department of Energy and Climate Change (or any other government department from time to time) in year y prices.

$IF_{m,t,y}$ means the inflation factor from year y to month m in Formula Year t as derived in accordance with the following formula:

$$IF_{m,t,y} = \frac{AI_t}{AI_y}$$

where:

AI_t means the annual inflation index for Formula Year t and is equal to the arithmetic average of the retail prices index numbers published or determined with respect to each of the six months from July to December (both inclusive) in Formula Year t-1.

AI_y means the annual inflation index for year y and is equal to the arithmetic average of the retail prices index numbers published or determined with respect to each of the six months from July to December (both inclusive) in year y-1.

VF_t means the venting equivalent factor that represents the number of tonnes of CO_2 equivalent of each tonne of natural gas Vented in respect of Formula Year t shall take the value 21.

Greenhouse Gas Emissions Project Costs ($GHGC_t$)

3D.38 For the purposes of the Principal Formula, $GHGC_t$ shall be of a positive or zero value as directed by the Authority for the purposes of paragraph 3D.2 of Special Condition 8D (Requirement to undertake a Scheme of Work to facilitate the establishment of a long term external gas system operator incentive to reduce targeted greenhouse

gases). In the event that the Licensee incurs costs in fulfilling its obligations pursuant to Special Condition 8D that it considers should be recovered via $GHGC_t$, the Licensee shall by 31 July in the Formula Year t following the Formula Year in which those costs are incurred provide a statement to the Authority detailing the costs incurred in Formula Year t-1 and justification that those costs were efficiently incurred. Upon receipt of the statement, the Authority will determine the extent to which the Licensee's costs were efficiently incurred and, if appropriate, shall issue a direction specifying the value of $GHGC_t$. The value of $GHGC_t$ in Formula Year t shall be zero or as directed by the Authority.

3D.39 For the purpose of Part F of this condition:

Relevant Compressor	means gas and electrically powered gas compression equipment forming part of the pipeline system to which this licence relates that is used by the Licensee to increase the pressure of gas in part of that pipeline system.
Venting	means the release of natural gas from a Relevant Compressor as a result of: (a) starting a compressor; (b) purging a compressor; (c) depressurising a compressor; or (d) the leakage of gas through a seal around the shaft of a compressor.

PART G The Maintenance Incentive Revenue (MIR_t)

3D.40 For the purposes of the Principal Formula, MIR_t (£m) allowed to the Licensee in respect of Formula Year t commencing on 1 April 2013~~5~~ ~~and~~, 1 April ~~2014~~ 2016 and 1 April 2017 is derived in accordance with the following formula:

$$MIR_t = MCIR_t + MDIR_t$$

In the above formula for MIR_t:

$MCIR_t$	means, the Maintenance Change Incentive Revenue (£m) allowed to the Licensee in respect of Formula Year t as derived in accordance with paragraph 3D.41 of this condition.
$MDIR_t$	means the Maintenance Days Incentive Revenue (£m) allowed to the Licensee in respect of Formula Year t as derived in accordance with paragraph 3D.42 of this condition.

(a) The Maintenance Change Incentive Revenue ($MCIR_t$)

3D.41 For the purposes of paragraph 3D.40 of this condition, $MCIR_t$ (£m) is derived in accordance with the following formula:

if $MCICD_t < MCITD_t$, then:

$$MCIR_t = Min[MCIPM_t \times 0.05, MCICAP_t];$$

otherwise:

$$MCIR_t = Max[MCIPM_t \times 0.05, MCIFLOOR_t]$$

In the above formula for $MCIR_t$:

$MCIPM_t$	means the Maintenance Change Incentive Performance Measure in respect of Formula Year t as derived in accordance with the following formula:

$$MCIPM_t = MCITD_t - MCICD_t:$$

where:

$MCICD_t$	means the total number of actual Maintenance Change Days in Formula Year t.

$MCITD_t$ means the Maintenance Change Incentive Target (Days) in respect of Formula Year t as derived in accordance with the following formula:

$$MCITD_t = 0.0725 \times MW_t$$

where:

MW_t means the Maintenance Workload (Days) in respect of Formula Year t and shall be equal to the number of Maintenance Plan Days in Formula Year t, including Maintenance Plan Days called through Advice Notices.~~.~~

$MCICAP_t$ means the Maintenance Change Incentive cap, and in Formula Year t shall take the value of £0.5m.

$MCIFLOOR_t$ means the Maintenance Change Incentive floor, and in Formula Year t shall take the value of -£0.5m.

(b) The Maintenance Days Incentive Revenue ($MDIR_t$)

3D.42 For the purpose of paragraph 3D.40 of this condition $MDIR_t$ (£m) is derived in accordance with the following formula:

if MD_t ≤4~~< MDT_t~~, then:

$MDIR_t$ = ~~Min[(~~($MDPM_t$-6) × ~~0.02~~0.025~~)~~ + ~~(~~6 × 0.015~~), $MDICAP_t$]~~

if 5≤MD_t ≤10, then:

$MDIR_t = MDPM_t \times 0.015$

otherwise:

$MDIR_t = Max[MDPM_t \times 0.02, MDIFLOOR_t]$

3D.43 In the above formula for $MDIR_t$:

$MDPM_t$ means the Maintenance Days Performance Measure in respect of Formula Year t as derived in accordance with the following formula:

$MDPM_t = MDT_t - MD_t$;

where:

MD_t means the total number of Maintenance Plan Days on which the Licensee has undertaken Maintenance in respect of ~~Short ILI runs, Long ILI runs and~~ Valve Operations in Formula Year t. Where a Maintenance Plan Day is used for activities other than ~~Short ILI runs, Long ILI runs and~~ Valve Operations, it shall not be included within MD_t.

MDT_t means the target number of Maintenance Plan Days in respect of Valve Operations in the Formula Year t ~~as derived in accordance with the following formula.:~~ MDT_t shall take the value of 11 (unless otherwise directed by the Authority following notification to it by the Licensee of a change made to maintenance and operational policy to comply with new or revised safety legislation including but not limited to The Pipeline Safety Regulations 1996 (SI 1996 No 825)).

~~$MDT_t = MDILI_t + MDVO_t$~~

where:

~~$MDILI_t$ means the Maintenance Plan Days In Line Inspection benchmark (days) as derived in accordance with the following formula:~~

$$MDILI_t = \sum_{\substack{Each\,short \\ ILI\,run}} \text{Benchmark for Short ILI run} + \sum_{\substack{Each\,Long \\ ILI\,run}} \text{Benchmark for Long ILI run}$$

~~where:~~

~~$\sum_{\substack{Each\ short \\ ILIrun}} x$ means the sum of x for each short ILI run undertaken by the Licensee in Formula Year t.~~

~~$\sum_{\substack{Each\ Long \\ ILIrun}} x$ means the sum of x for each long ILI run undertaken by the Licensee in Formula Year t.~~

~~Short ILI run~~

~~means work necessary to undertake an In Line Inspection of a section of the pipeline system to which this licence relates where the length of pipeline concerned is 10km or less and requiring one or more Maintenance Plan Days.~~

~~Benchmark for Short ILI run~~

~~means the benchmark number of Days required to undertake a Short ILI run and shall take the value 4.23.~~

~~Long ILI run~~

~~means work necessary to undertake an In Line Inspection of a section of the pipeline system to which this licence relates where the length of pipeline concerned is more than 10km and requiring one or more Maintenance Plan Days.~~

~~Benchmark for Long ILI run~~

~~means the benchmark number of days required to undertake a Long ILI run and shall take the value 5.53.~~

~~$MDVO_t$ means the annual benchmark number of Maintenance Plan Days for the work necessary to undertake Valve Operations and shall take the value of 44.65 (unless otherwise directed by the Authority following notification to it by the Licensee of a change made to maintenance and operational policy to comply with new or revised safety regulations including but not limited to The Pipeline Safety Regulations 1996 (SI 1996 No 825)).~~

~~$MDICAP_t$ means the Maintenance Plan Days Incentive cap, and in Formula Year t shall take the value of £1m.~~

$MDIFLOOR_t$ means the Maintenance Plan Days Incentive floor, and in Formula Year t shall take the value of -£~~1~~0.5m.

3D.44 For the purpose of Part G of this condition:

Advice Notice	Is a notice issued to a customer, after bilateral discussions between the customer and the Licensee, informing the customer of a Maintenance Plan Day
Maintenance Change Day	shall be any Maintenance Plan Day, where the Licensee has initiated a change compared to the Maintenance Plan, unless the Licensee has requested the change to facilitate the requirements of another Maintenance Relevant Party. Changes for the purposes of this term result in: (a) a change in date, including a change to the number of days that one or more Maintenance Relevant Parties are affected by a Maintenance

	Plan Day; and (b) a cancellation of a Maintenance Plan Day.
Maintenance Plan	shall be the year ahead plan that is made up of the notifications of Maintenance Plan Days that the Licensee sends to Maintenance Relevant Parties on or before 1 April for the Formula Year t in respect of Maintenance Plan Days.
Maintenance Plan Day	shall be any planned Maintenance Day included within the Maintenance Plan or any planned Maintenance Day subsequently added to the Maintenance Plan after 1 April in the relevant Formula Year that is related to one or more of the following maintenance activities (for the avoidance of doubt, where a single Maintenance activity affects multiple Maintenance Relevant Parties on a day, this will be construed as a single Maintenance Plan Day): (a) routine maintenance (e.g. routine valve operations); (b) planned asset replacement and reinforcements, including but not limited to boiler replacements, work to facilitate the replacement of compressors to enable compliance with emissions related legislation and incremental capacity requirements; and (c) In-Line Inspections where these activities affect one or more Maintenance Relevant Parties where this party is a NTS Supply Point or an NTS Connected System Exit Point. For the avoidance of doubt, this does not include activities that cannot reasonably be planned in advance of the draft Maintenance Plan in respect of Formula Year t including work following a network gas supply emergency or force majeure, work following a fault or defect, pipeline feature inspections or any activities carried out on behalf of one or more third parties.
Maintenance Relevant Party; NTS Supply Point; NTS Connected System Exit Point; Maintenance Day	shall have the meanings given to those terms in the network code.
Valve Operations	means the work necessary to undertake an inspection of valves on the pipeline system to which this licence

relates or any part or parts of it.

PART H Interpretation

3D.45 For the purposes of this condition:

Actual NTS Throughput	means the total offtake of gas from the NTS on each day (measured in mcm), including gas offtakes by DN Operators, Storage Facilities, interconnectors and Very Large Daily Metered Consumers (VLDMC) connected to the NTS, plus the physical elements of NTS Shrinkage.
Electric Compressor	means electrically powered gas compression equipment forming part of the pipeline system to which this licence relates that is used by the Licensee to increase the pressure of gas in part of that pipeline system.
Min [x,y]	is the value which is the lesser of x and y.
Max [x,y]	is the value which is the greater of x and y.
mcm	means millions of cubic meters of gas.
Relevant Quarter Year and q	means each quarter in Formula Year t, where a quarter is a continuous period of three calendar months and where q=1 is the period between 1 April and 30 June, q=2 is the period between 1 July and 30 September, q=3 is the period between 1 October and 31 December and q=4 is the period between 1 January and 31 March (each inclusive).
Relevant Compressor Site s	means a relevant compressor site being a location at which one or more Electric Compressors are installed.
week and w	means each week in the Formula Year t, where a week is a continuous period of seven days commencing from Monday to Sunday inclusive.
NTS shrinkage, Storage Facility, Day and VLDMC	shall have the meaning given to those terms in the network code. Where storage facilities are mentioned these are defined as a multiple storage facility.

Special Condition 8I: Requirement to undertake greenhouse gas investigation activities

Introduction

8I.1 The purpose of this condition is to set out the obligations of the Licensee in respect of the Greenhouse Gas Investigation Activities.

Part A: Licensee's obligations under this condition

8I.2 The Licensee shall by 31 January 2016, or such date as may be otherwise directed by the Authority, submit to the Authority for approval a business plan setting out:

(a) details of activities to be undertaken for the purposes of:

(i) increasing the Licensee's understanding of venting (including the causes and driving factors of venting) which are within and outside of the control of the Licensee;

(ii) identifying ways to increase transparency through accurate measurement of venting;

(iii) identifying ways to deliver long-term carbon benefits through cost effective mitigation of venting within the control of the Licensee;

(b) the timings within which the Licensee shall:

(i) complete the investigation activities specified in the business plan; and

(ii) implement the findings of those investigation activities.

8I.3 Following receipt of a business plan pursuant to paragraph 8I.2, the Authority shall determine within two months of receipt of the business plan whether to approve or reject that business plan.

8I.5 The Licensee may amend an approved business plan from time to time subject to the approval of the Authority.

8I.6 The Licensee shall undertake the activities set out in the business plan within the timings specified in the business plan.

8I.7 The Licensee shall ensure appropriate transparency in relation to the results of the investigation activities.

8I.9 The Authority may direct the recovery of an amount up to £0.4m in accordance with the procedure for the direction of the value of GHGIMt set out in paragraphs 3D.25 – 3D.28 of Special Condition 3D.

8I.10 For the purposes of this condition:

Greenhouse Gas Investigation Activities	means the activities specified in paragraphs 8I.2, 8I.6 and 8I.7 of this Special Condition.
Venting	has the meaning given to that term in paragraph 3D.39 of Special Condition 3D.

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Special Condition 8J: Requirement to report on the length of Short and Long In-Line Inspections (ILIs)

Introduction

8H.1 The purpose of this condition is to set out the obligations of the Licensee in respect of reporting on the length of both Short and Long In-Line Inspections (ILIs).

Part A: Licensee's obligations under this condition

8H.2 The Licensee shall by 31 March 2016 and every subsequent twelve months thereafter, or by such other dates as directed by the Authority, publish an ILI Reportin respect of Formula Year t commencing on 1 April 2015 and each subsequent Formula Year t until 31 March 2018.

Part B: Interpretation

8H.3 For the purposes of this condition:

ILI Report	means a report undertaken by the Licensee detailing the length of time taken by the Licensee to complete both Short ILIs and Long ILIs and comparing this against previous annual reporting figures and any other relevant benchmarks.
Short ILI	means work necessary to undertake an In Line Inspection of a section of the pipeline system to which this licence relates where the length of pipeline concerned is 10km or less and requiring one or more Maintenance Plan Days.
Long ILI	means work necessary to undertake an In Line Inspection of a section of the pipeline system to which this licence relates where the length of pipeline concerned is more than 10km and requiring one or more Maintenance Plan Days.