Dated [**] ~~2015~~2019

Amendment and Restatement

of the

Interconnection Agreement

Between

National Grid Gas PLC

and

BBL Company V.O.F.

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THIS Agreement

Dated 21 April 2009 and amended and restated as at

Between

(1) **National Grid Gas PLC** (registered in England and Wales under number 02006000), whose registered office is at 1-3 Strand, London, WC2N 5EH ("**National Grid Gas**" or "**NGG**"); and

(2) **BBL Company V.O.F.** (Trade Register No. 02085020), whose registered office is at Concourslaan 17, PO Box 225, 9700 AE Groningen, the Netherlands, for and on behalf of itself in its capacity as the operator of the CSO Facilities (the "**CSO**") and on behalf of the CSO Facilities Owners.

Recitals

A. National Grid Gas is the owner and operator of a pipeline system in Great Britain and holds a licence as a Gas Transporter pursuant to the Gas Act (as defined below), pursuant to which National Grid Gas has prepared a network code (a copy of which as in force at the date of this Agreement is available to the CSO on the Joint Office website) setting out the terms on which shippers may arrange with National Grid Gas for the conveyance of gas by means of the NGG System. The CSO is the operator of an interconnector pipeline which is connected to the NGG System at Bacton and holds a licence as a gas interconnector pursuant to the Gas Act (as defined below) and has entered or will enter into one or more agreements for the transportation of gas by means of the CSO System from Bacton to Anna Paulowna and from Anna Paulowna to Bacton.

B. For the avoidance of doubt, the CSO is not a party and is not bound by the terms of the Network Code.

C. For the purposes of the Network Code the point at which the CSO System is connected to the NGG System (referred to in this Agreement as the CSP) is an Interconnection Point comprising an Individual System Exit Point and a System Entry Point in relation to which the CSO will be respectively the Adjacent TSO, the Connected System Operator and the Delivery Facility Operator.

D. The Network Code requires that in relation to an Interconnection Point, an Interconnection Agreement will be entered into between National Grid Gas and the Adjacent TSO, for the purposes of setting out Interconnection Provisions and including:

   (a) in relation to the Connected System Exit Point, Network Exit Provisions for the purposes of providing for the application of certain provisions of the Network Code and setting out certain other matters in relation to the offtake of gas by NGG Shippers from the NGG System at the CSEP; and

   (b) in relation to the System Entry Point, Network Entry Provisions setting out (inter alia) the specification, entry pressure, point of delivery and basis of measurement with respect to Natural Gas delivered to the System at that point and the Local Operating Procedures that will be agreed between them.

E. This Agreement has been amended in order to comply with certain requirements pursuant to the Interoperability Code, the Balancing Code and CAM Code, including the requirement to

have in place an interconnection agreement and to ensure certain matters are addressed in such agreement; and further amended to allow physical flow in the reverse direction.

F. This Agreement is the interconnection agreement relating to the Connected Systems Point for the purposes of the Network Code and the Interoperability Code.

~~G. There is to be no physical flow of gas from the NGG System to the CSO System at the CSP; and accordingly CSO Shippers and NGG Shippers may nominate and be allocated gas as delivered to the CSO System or offtaken from the NGG System only to the extent that there are (in aggregate) nominations and allocations of equal or greater quantities as delivered to the NGG System and offtaken from the CSO System.~~

It is agreed:

1 Definitions and Interpretation

1.1 Definitions

1.1.1 ~~1.1~~ In this Agreement the following words and expressions shall, unless the context requires otherwise, have the following meanings:

Actual Flow Rate at any time shall mean the total instantaneous volumetric flow rate, in the form of Natural Gas, expressed in NCM/D, that is being delivered ~~at~~ to the NGG System ~~Entry Point~~at the CSP.

Affiliate means any holding company or a subsidiary of a Party or any undertaking which is a subsidiary of any holding company of a Party and the expression subsidiary and holding company shall have the meanings respectively attributed to them by section 1159 of the Companies Act as amended such that a company holding a twenty per cent (20%) interest in a company shall be construed as having the right to exercise a dominant influence over that company.

Agreement means this agreement originally dated 21 April 2009 and the Appendices to it as amended and restated on the date written above, as amended, restated, varied, novated and supplemented from time to time.

Anna Paulowna Blending Site shall be such site as identified in the diagram in Part ~~4~~1 to Appendix ~~1~~3.

Authority means the Gas and Electricity Markets Authority.

Balancing Code means Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks.

barg means bar gauge.

BBL Information Services Webpage means the website found at the domain name https://infosecure.bblcompany.com.

Business Day means a calendar day other than (a Saturday, a Sunday or a legal public holiday) on which banks are generally open for inter-bank business in London and Amsterdam.

CAM Code means Commission Regulation (EU) No 984/2013 of 14 October 2013 establishing a Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems and supplementing Regulation (EC) No 715/2009.

Commissioned Certificate means the certificate to be issued pursuant to the document T/PM/TR/47 Commissioning of Customer Connections to the NTS confirming that the tests necessary for connection have been satisfied in accordance with the Connection Works Offer.

Competent Authority means any local, national or supra national agency, authority, department, inspectorate, minister, ministry, court, tribunal or official or public or statutory person whether autonomous or not of, the United Kingdom (or the government thereof) or of the European Union which has jurisdiction over National Grid Gas or the CSO or the subject matter of this Agreement (including without limitation the Authority).

Connected Systems Point or **CSP** is the point (being an Individual System Exit Point and an Individual System Entry Point) and being an interconnection point at which the NGG System and the CSO System are connected at Bacton as described in Part ~~4~~ 1of Appendix ~~1.~~3.

Connection Facilities means the National Grid Gas Facilities and the CSO Facilities.

Connection Works Offer means the full connection works offer dated 17 October 2018, which includes "T/PM/TR/47 Commissioning of Customer Connections to the NTS".

CSEP means the CSP as Connected System Exit Point.

CSO Facilities means the facilities installed, owned and operated by the CSO at the CSP as described in Part ~~4~~1 of Appendix ~~1.~~3.

~~**CSO Facilities Agreement** means an agreement made between the CSO and another person for the delivery of gas from the CSO Facilities.~~

CSO Facilities Owners means the owners of the CSO Facilities from time to time, with the owners of the CSO Facilities at the date hereof being the companies listed in Part ~~3~~1 of Appendix ~~1.~~3.

CSO Representative means the person or post notified by the CSO from time to time to National Grid Gas as its representative for the provision and receipt of information in accordance with the Local Operating Procedures.

CSO Shipper means any person (whether or not being a NGG Shipper) with whom the CSO may for the time being have arranged for the transportation of gas in the CSO System.

CSO System means the interconnector pipeline system operated by the CSO for the conveyance of gas to or from the NGG System at Bacton, ~~or to or from any other pipeline connected to such interconnector pipeline system at Bacton, from~~rom or to a pipeline system in the Netherlands at Anna Paulowna, including the CSO Facilities.

Daily Flow Notification or **DFN** shall be the notification given by ~~facsimile~~electronic file via email (or other agreed means) provided by the CSO to National Grid Gas showing the daily

notifications as described in paragraph 2.2 of Appendix ~~3~~8 and substantially in the form of Attachment A to Appendix ~~3.~~8.

Data Items has the meaning given to such term in paragraph 2.5 of Appendix ~~3.~~8.

Day means the period from 05:00 hours UTC (04:00 hours during daylight saving time periods) on one calendar day until 05:00 hours UTC (04:00 hours during daylight saving time periods) on the following calendar day.

Direction means the direction of physical or commercial flow of Natural Gas at the CSP (and in relation to IP Capacity as defined in Appendix 6 means the direction of gas flow to which such capacity relates).

Directive means any present or future directive, request, requirement, instruction, code of practice, direction or rule of any Competent Authority having the force of law or which a Party is otherwise required to comply with under the arrangements by which a Party is regulated pursuant to the Gas Act and any modification, extension or replacement thereof.

Duly Authorised Representative means any of those employees of a Party whose names have been notified in writing to the other Party as having authority to bind the Party in circumstances where its agreement is required hereunder and, until otherwise notified, shall in the case of National Grid Gas be such person who from time to time shall occupy the position of Customer Services Manager, Transmission and in the case of the CSO, shall be such person who from time to time shall occupy the position of Director of the CSO. For the avoidance of doubt, the Duly Authorised Representative will not be the CSO Representative or the National Grid Gas Shift Representative.

Effective Date shall have the meaning ascribed to it in Clause 4.1 of this Agreement.

Emergency Shut Down Condition means any condition requiring either National Grid Gas or the CSO acting reasonably and prudently, in accordance with the relevant emergency procedures, to cease forthwith to accept or deliver Natural Gas at the Transfer Point in the interest of preventing possible damage to in the case of National Grid Gas, the NGG System or in the case of the CSO, the CSO Facilities, or the injury or death of any person.

End of Day Energy Quantity shall mean the total quantity of energy of Natural Gas, in kWh, delivered ~~at~~to or offtaken from the NGG System ~~Entry Point~~at the CSP during the Gas Day (being the same as the Measured Quantity, subject to Clause 1.3).

End of Day Volumetric Quantity means the total volume of Natural Gas, in NCM, delivered ~~at~~to or offtaken from the NGG System ~~Entry Point~~at the CSP during the Gas Day subject to Clause 1.3.

Exact Hour means the time in full hours and no minutes (e.g. 15.00 hours is an Exact Hour).

Exceptional Event means an exceptional event under the Interoperability Code, which is agreed to be:

(a) in relation to National Grid Gas, a Transportation Constraint (as defined in the Network Code); and

(b) in relation to the CSO, a Capacity Restriction (as defined in the General Terms and Conditions).

Expected Daily Energy Quantity in respect of any Gas Day means the ~~target~~ daily energy quantity for one Gas Day, expressed in kWh~~/Day~~, that the CSO expects in its reasonable opinion will be delivered ~~at the Transfer Point~~to or offtaken from the NGG System at the CSP, subject to Clause 1.3.

Expected Hourly Energy Quantity in respect of any Gas Day means the ~~target~~ hourly energy for one hour expressed in kWh/hour, that the CSO expects in its reasonable opinion will be delivered to or offtaken from the NGG System at the ~~Transfer Point~~CSP.

Expert means an expert appointed in accordance with Clause ~~17.~~17.

First Amendment and Restatement has the meaning given in Clause 4.1(a).

Forward Flow: a quantity of Natural Gas that is or is deemed to be transported in the Direction from the CSO's Facilities towards NGG's Facilities.

Gas Act means the Gas Act 1986 and any regulations issued thereunder, as such Gas Act and regulations are amended or supplemented from time to time.

Gas Day means, in relation to the application of any provision of this Agreement, the Day in relation to deliveries, offtakes or flow or gas or other operations on which such provision is to apply and references to D mean any given Gas Day, references to D-1 mean the Day before any given Gas Day and references to D+1 mean the Day after any given Gas Day.

Gas Deficit Emergency means a Network Gas Supply Emergency as defined in the National Grid Gas "Procedure for Network Gas Supply Emergency" currently version 8.0 July 2012 (as amended or replaced from time to time).

Gas Entry Conditions means in respect of the System Entry Point the limits and other requirements as to the composition, pressure, temperature and other characteristics of Natural Gas delivered or tendered for delivery at the System Entry Point as set out in ~~paragraph 2 of Part 1~~Paragraph 3 of Appendix 1.

~~**Gas Flow** means a volume of Gas, in NCM, that flows through the Connected Systems Point and that can be or has been measured by the Metering Station, being Forward Flow.~~

Gas Transporter means a holder of a gas transporter licence granted (or treated as granted) under section 7(2) of the Gas Act, together with any successor or assignee thereof.

General Terms and Conditions means the BBL General Terms and Conditions including the Exhibits thereto and any amendments thereof.

Gross Calorific Value means that quantity of heat expressed in Megajoules produced by the complete combustion in air of one (1) Normal Cubic Metre of Natural Gas at twenty-five degrees Celsius (25°C) and Normal Pressure with excess air at the same temperature and pressure as the Natural Gas when the products of combustion are cooled to twenty-five degrees Celsius (25°C) and when the water formed by combustion is condensed to the liquid state and products of combustion contain the same total mass of water vapour as the Natural Gas and air before combustion.

GTS System means the pipeline system operated by Gasunie Transport Services B.V. for the conveyance of gas to and from the CSO's facilities in the Netherlands.

Hour or **Hourly** means a period of time commencing at an Exact Hour and expiring at the next Exact Hour.

Individual System Entry Point means a point on the NGG System at which gas can flow into the NGG System.

Interoperability Code means Commission Regulation (EU) No 2015/703 of 30 April 2015 establishing a Network Code on interoperability and data exchange rules.

Joule means a joule as defined in ISO 80000-1:2009.

kWh means a kiloWatt hour or three million six hundred thousand (3,600,000) Joules.

kWh/D or kWh/day means kWh per Day.

kWh/h or kWh/hour means kWh per Hour.

Legal Requirement means any Act of Parliament, regulation, licence or Directive of a Competent Authority.

Local Operating Procedures or **LOP** means the procedures set out in Appendix ~~3~~8 including all appendices and attachments attached hereto as may from time to time be supplemented, amended or otherwise modified according to the provisions herein.

Measured Quantity has the meaning given to such term in the Network Code.

Measurement Provisions means those procedures, methods and standards in place in respect of the measurement and determination of the volume, calorific value, quantity and delivery characteristics of Natural Gas delivered or tendered for delivery to, or offtaken or made available for offtake from, the NGG System at the Connected ~~System~~Systems Point as set out in ~~Part 2 of~~ Appendix ~~1.~~7.

Megajoules or **MJ** means one million (1,000,000) Joules.

MJ/NCM means Megajoules per Normal Cubic Metre.

MMJ means millions of Megajoules.

MMJ/day means millions of Megajoules per Day.

MNCM means millions of Normal Cubic Metres.

MNCM/D or MNCM/day means millions of Normal Cubic Metres per Day.

MNCM/h or MNCM/hour means millions of Normal Cubic Metres per Hour.

MWh/D or MWh/day means millions of kWh per Day.

MWh/h or MWh/hour means millions of kWh per Hour.

National Grid Gas Facility means the facilities installed and owned by National Grid Gas at the CSP as described in Part ~~4~~1 to Appendix ~~1.~~3.

National Grid Gas Shift Representative means the person or post notified by National Grid Gas from time to time to the CSO as its representative for the provision and receipt of information in accordance with the Local Operating Procedures.

National Grid Overview means the overview of the Data Items to be made available to National Grid Gas on the BBL Information Services Webpage.

Natural Gas means any hydrocarbons or mixture of hydrocarbons and other gases consisting primarily of methane which at twenty-five degrees Celsius (25°C) and Normal Pressure are or is predominantly in the gaseous state.

Network Code means the network code (incorporating the uniform network code) prepared by National Grid Gas pursuant to, and as from time to time modified pursuant to, National Grid Gas's gas transporter's licence.

NGG Shipper means a gas shipper (as defined in the Gas Act) which is pursuant to the Network Code for the time being a User in respect of the CSP (as an interconnection point).

NGG System means the main pipeline system operated by National Grid Gas in Great Britain (being the System as defined in the Network Code), including the National Grid Gas Facilities.

Normal Cubic Metre or NCM or m3 (n) means when applied to gas, that amount of Natural Gas that, at zero degrees Celsius (0°C) and Normal Pressure and being free of water vapour, occupies one (1) cubic metre.

Normal Pressure means one decimal zero one three two five (1.01325) bar.

'Normal Reference' Effective Date means 28 October 2015.

Off-Specification Gas shall mean Natural Gas delivered or tendered for delivery to the NGG System at the System Entry Point that does not meet the operating conditions and quality requirements as described in Appendix 1.

Operator means National Grid Gas or the CSO.

Party means a party to this Agreement including any successors or permitted assigns and Parties shall be construed accordingly.

Reasonable and Prudent Operator means a person acting, in good faith, to perform its contractual obligations and, in so doing and in the general conduct of its undertaking, exercising that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances.

Regulations means the Gas Safety Management (Regulations) 1996.

Reverse Flow means a quantity of Natural Gas that is or is deemed to be transported in the Direction from NGG's Facilities towards the CSO's Facilities.

Second Amendment and Restatement has the meaning given in Clause 4.1(b).

Shipper means a NGG Shipper or a CSO Shipper.

System means the NGG System or the CSO System.

System Entry Point or SEP means the CSP as System Entry Point.

Terajoules means one million (1,000,000) Megajoules.

TJ/day means Terajoules per Day.

Tolerances means (unless otherwise agreed between the Parties' Duly Authorised Representatives from time to time):

(a) for changes to the Expected Hourly Energy Quantity a tolerance of plus or minus ~~0.5 NCM/D~~240,000kWh;

(b) for changes to the CSO's estimated Gross Calorific Value a tolerance of plus or minus 0.2 MJ/MNCM; and

(c) for changes to the CSO's estimated Expected Daily Energy Quantity a tolerance of plus or minus ~~0.5 MNCM~~5,760,000kWh.

Transfer Point means the point where the CSO Facilities are connected to the NGG System for the purpose of delivering and/or offtaking Natural Gas. The Transfer Point is shown in Part ~~4 to~~1 of Appendix ~~1.~~3.

Transportation Arrangement means an arrangement made by National Grid Gas (constituting a transportation arrangement as defined in the licence referred to in Recital (A)) with a NGG Shipper, or by the CSO with a CSO Shipper, for the transportation of Natural Gas in such Operator's System to or from the CSP; and a reference to a Transportation Arrangement shall include the Network Code in the case of National Grid Gas.

Transportation Flow Advice (TFA) shall be the advice given by facsimile (or other agreed means) by National Grid Gas to the CSO in relation to Forward Flow whenever:

(a) the Expected Hourly Quantities notified by the CSO on the DFN will not in National Grid Gas's reasonable opinion, be able to be accommodated by the NGG System; or

(b) Off-Specification Gas is delivered to the NGG System;

and shall be as described in paragraph 3.3 of Appendix ~~3~~8 and substantially in the form set out in Attachment B and Attachment C to Appendix ~~3.~~8.

UTC means coordinated universal time, according to ISO 8601: 1988(E)

Validation means validation of the metering system, which requires each installed component of the Measurement Equipment to be checked to ensure it is still operating in the manner required by the design specification.

1.2 Interpretation

1.2.1 ~~1.2~~ The Clause, paragraph and other headings in this Agreement are for convenience only and shall not affect its interpretation or construction.

1.2.2 ~~1.3~~ Any reference in this Agreement to the singular shall (save where the context requires otherwise) include a reference to the plural (and vice versa).

1.2.3 ~~1.4~~ Reference in this Agreement to any statute, statutory instrument or statutory provision includes any amendment, re-enactment or supplement thereto.

1.2.4 ~~1.5~~ Words and expressions defined in the Network Code (including the uniform network code as incorporated into the Network Code) and not defined in this Agreement have the meanings ascribed to them under the Network Code.

1.2.5 ~~1.6~~ References to Appendices and Clauses are references to Appendices, including Attachments thereto, and Clauses of this Agreement respectively.

1.2.6 ~~1.7~~ Unless the context requires otherwise, references to TPD Sections are to Sections of the Transportation Principal Document of the uniform network code incorporated into the Network Code and references to EID Sections are to Sections of the European Interconnection Document of the uniform network code incorporated into the Network Code.

1.2.7 ~~1.8~~ Unless otherwise provided, references to paragraphs are references to paragraphs of the Appendix to this Agreement.

1.2.8 ~~1.9~~ In the case of any conflict, the provisions of the main body of this Agreement shall prevail over the provisions of the Appendices which are part of this Agreement.

1.2.9 ~~1.10~~ Where this Agreement defines a word or expression related words and expressions have a consistent meaning.

1.2.10 ~~1.11~~ Daylight saving time periods begins at UTC 01:00 hours (when the clocks go forward one hour) on the last Sunday in March, and UTC 01:00 hours on the last Sunday in October (when the clocks are put back one hour). References to local GB time are to UTC plus one hour in daylight saving time periods and otherwise to UTC.

1.3 Within Day changes of Direction

1.3.1 Where the Direction of physical flow at the CSP changes on a Day, and such change does not occur with effect from the start of that Day:

(a) the Day shall be treated as divided as between the period of flow in one Direction and the period of flow in the other Direction (such periods ending and starting at the same Exact Hour); and

(b) each such period shall be treated as being a separate Day (of the number of hours of such period) for the purposes of the operational provisions of this Agreement;

1.3.2 Pursuant to Clause 1.3.1:

(a) there is a separate End of Day Energy Quantity, End of Day Volumetric Quantity and Expected Daily Energy Quantity in respect of each of the two periods of the Day;

(b) there is a DFN (pursuant to Appendix 8) for the period of Forward Flow, with null values for the hours of Reverse Flow;

(c) there is an OPN (pursuant to Appendix 2) for the period of Reverse Flow, with null values for the hours of Reverse Flow;

(d) for the purposes of Appendix 5 there is a separate Aggregate Net Confirmed Quantity, Agreed Target Quantity and Steering Difference in respect of each of the two periods of the Day; and the rules for allocation apply separately in each such period; and

(e) separate measured quantities shall be determined pursuant to Appendix 7 in respect of each of the two periods of the Day.

2 General

2.1 Subject to the terms of this Agreement it is agreed that the CSO shall be entitled to have the CSO System connected to the NGG System at the CSP.

2.2 Nothing in this Agreement shall:

(a) without prejudice to paragraph ~~5.6~~Schedule 1Schedule 0Part 35.6 of Appendix 5, impose or confer on either Operator any obligation or entitlement against the other Operator to deliver Natural Gas to or offtake Natural Gas from the other Operator's System, or as to the rates, quantities, pressure and quality of Natural Gas so delivered or offtaken, (it being acknowledged that the only persons having such obligations are CSO Shippers and NGG Shippers);

(b) make any provision of any Transportation Arrangement of either National Grid Gas or the CSO binding as between National Grid Gas and the CSO nor is any provision of this Agreement deemed to amend or vary any such Transportation Arrangement ~~or CSO Facilities Agreement~~.

2.3 Without prejudice to the provisions of Appendix 6 with respect to capacity optimisation, this Agreement shall not require either Party to increase the flow rate capacity of any part of its System, or to take any other step with a view to it being feasible to accept the delivery of Natural Gas into the NGG System from the CSO System at the System Entry Point or make Natural Gas available for offtake from the NGG System into the CSO System at the CSEP in any quantities or at any rate, nor to accept an application by any System User for capacity in the NGG System at any particular point.

2.4 Without prejudice to any other agreement between the Parties, neither Operator (the **first Operator**) shall be liable to the other in respect of any failure, by~~,~~ NGG Shippers (where the first Operator is National Grid Gas) or CSO Shippers (where the first Operator is the CSO), to comply with any provision of the first Operator's Transportation Arrangements, nor for any failure of ~~National Grid Gas~~either Operator to accept delivery of ~~gas into its System~~Natural Gas into or make Natural Gas available for offtake from that Operator's NGG System at the CSP (at any rate or pressure or of any quality or in any quantity).

2.5 The CSO acknowledges that National Grid Gas's Transportation Arrangements contain or may contain provisions pursuant to which the delivery or offtake of ~~gas~~Natural Gas to or from the ~~CSO's~~NGG System by NGG Shippers at the CSP may be suspended or discontinued and/or the rate of such offtake may be limited.

2.6 National Grid Gas acknowledges that the CSO's Transportation Arrangements contain or may contain provisions pursuant to which the offtake or delivery of ~~gas~~Natural Gas from or to the CSO~~'s~~ System by CSO Shippers at the CSP may be suspended or discontinued and/or the rate of such delivery limited.

2.7 Save as expressly provided otherwise in this Agreement, each Operator will perform its duties under this Agreement in accordance with the standard of a Reasonable and Prudent Operator and in compliance with the terms and conditions of this Agreement, agreed procedures and all applicable laws and regulations for the time being in force in the United Kingdom.

3 Operating Procedures

3.1 The Parties agree that the Local Operating Procedures shall apply between them. The Parties shall keep under review, and (as appropriate for reasons of safety or prudent operation) from time to time revise, the Local Operating Procedures pursuant to Appendix ~~1,~~8, paragraph 6, provided that no revision shall be effective unless signed by Duly Authorised Representatives on behalf of each of the Parties.

3.2 Each Party shall provide information to the other in accordance with, and otherwise comply with, the Local Operating Procedures.

4 Conditions and Duration

4.1 This Agreement originally became effective on 21 April 2009 (the **Effective Date**), and

(a) was amended and restated on 24 September 2015 (the **First Amendment and Restatement**);

(b) is further amended and restated on the date stated above but (except for Clauses 4.6 and 4.7) subject to the CSO giving Second A&R Notice in accordance with Clause 4.6 and with effect on and from the date specified in that notice (the **Second Amendment and Restatement**),

and (subject to earlier termination in accordance with this Agreement) shall continue in force until and unless terminated pursuant to Clauses 4.3 or 4.5. Subject to Clause 4.2, the ~~amendment and restatement of this Agreement is~~First Amendment and Restatement became effective in respect of Gas Days commencing on 1 October 2015 and is without prejudice to the effectiveness of this Agreement in respect of Gas Days commencing prior to 1 October 2015.

4.2 Where the ~~amendment and restatement of this agreement~~First Amendment and Restatement:

(a) substitutes "Standard Cubic Metre" with "Normal Cubic Metre"; and/or

(b) substitutes "Calorific Value" with "Gross Calorific Value"; and/or

(c) changes the reference temperature for purposes of the definition of Normal Cubic Metre and Gross Calorific Value from 15°C to 0°C or 25°C (as the case may be),

such changes ~~are~~were effective from the Gas Day commencing on ~~28 October 2015~~the 'Normal Reference' Effective Date.

4.3 If at any time following the first anniversary of the Effective Date ~~no~~ Natural Gas has neither been delivered (after transportation by the CSO System) to or offtaken from the NGG System at the CSP for a period of twelve (12) months (other than as a result of damage to or failure of any part of the NGG System or the CSO System or GTS System, where such damage is being remedied with reasonable diligence), and it is not reasonably foreseeable that within the following twelve (12) months any such deliveries or offtakes will take place, and as a result it is

no longer economic for either Operator to maintain the connection of its System to the other Operator's System, the Operators shall discuss in good faith:

(a) such circumstances and what steps may be taken with a view to agreeing upon a basis on which such continued connection may be made economic; or

(b) the termination of this Agreement.

4.4 Upon termination of this Agreement, unless the Operators have agreed that the Agreement is to be replaced by a further agreement relating to the same subject matter as this Agreement, the CSO System shall cease to be connected to the NGG System and each Operator shall be responsible at its cost for any required decommissioning, disassembly or removal of its Connection Facilities.

4.5 The Operators shall have the option to terminate this Agreement at any time by mutual consent. Such termination shall be without prejudice to the claims of either Operator in respect of any breach of this Agreement prior to termination.

4.6 The CSO may, no earlier than the date on which NGG gives the Commissioned Certificate, give NGG a notice (**Second A&R Notice**) stating the Gas Day from the start of which the Second Amendment and Restatement shall be effective. The Gas Day notified must be at least five business days after the date of the Second A&R Notice.

4.7 If the CSO does not give a Second A&R Notice to NGG within six (6) months of receiving the Commissioned Certificate, the Second Amendment and Restatement will not take effect and the terms of the First Amendment and Restatement shall prevail.

5 Confidentiality and Use of Information

5.1 The provision of information by either Party to the other pursuant to this Agreement shall be made in good faith by the Party disclosing such information but without any liability for or warranty as to the accuracy or completeness of such information. If either Party acts upon information provided by the other, that Party shall do so at its own risk.

5.2 For the purposes of this Agreement, in relation to a Party "Confidential Information" means the terms of this Agreement and any information disclosed to that Party by the other (whether orally or in writing or in some other permanent form) in connection with this Agreement, which at the relevant time:

(a) has not already been, or could not already have been, lawfully acquired by the Party to whom the disclosure is made; or

(b) is not already in the public domain (other than as a result of a breach of the terms of this Clause 5).

5.3 Except with the prior written consent of the other Party, and subject to Clause 5.4, each Party shall keep confidential, and shall not disclose to any third party or use other than for a purpose connected with this Agreement, all Confidential Information.

5.4 A Party may disclose Confidential Information:

(a) to that Party's legal counsel, other professional consultant or adviser, insurer, accountant, underwriter or provider of finance or financial support, or their legal

counsel and advisers, provided that such disclosure is solely to assist the purpose for which such person was engaged;

(b) if required and to the extent required by any Legal Requirement, or by a Competent Authority, or by the rules of any recognised stock exchange upon which the share capital or debt of the Party making the disclosure is or is proposed to be from time to time listed or dealt in;

(c) to any of its Affiliates or shareholders;

(d) to directors and employees of that Party and of its Affiliates or shareholders, to the extent required for the proper performance of their work;

(e) to any bona fide intended assignees of a Party's interests under this Agreement;

(f) to any Expert appointed in accordance with Clause 17;

(g) in respect only of the contents of the Local Operating Procedures attached in Appendix ~~3~~8 (with the exception of the contents of Attachment D thereto), the Network Entry Provisions attached in Appendix 1, and the contents of Appendices 4, 5 and 6 to any Shipper;

(h) in respect only of the End of Day Energy Quantity and any revisions thereto and the calculated Gross Calorific Value figures provided by the CSO pursuant to paragraph 2.5 of Appendix ~~3,~~8, to NGG Shippers, provided that National Grid Gas notifies or has notified the NGG Shippers that the CSO accepts no liability for the data and it is used entirely at their own risk;

(i) in the case of the CSO in respect only of any TFA (or any part thereof), to Gasunie Transport Services; and

(j) if required to be made available to Shippers under the Balancing Code, the CAM Code, the Interoperability Code or in order for either Party to comply with any of such codes or its Transportation Arrangements or with any Appendix to this Agreement.

5.5 Except as otherwise provided in this Clause 5.5, a Party shall ensure that any person to which it discloses information pursuant to Clause 5.4 (other than Clause 5.4(b)) undertakes to hold such Confidential Information subject to confidentiality obligations equivalent to those set out in Clause 5.3 (excluding legal counsel). Where National Grid Gas discloses information pursuant to Clause 5.4(h), it shall ensure that any person to which it discloses information pursuant to Clause 5.4(h) undertakes to hold such Confidential Information subject to the confidentiality obligations specified in the relevant Transportation Arrangement.

5.6 The CSO and National Grid Gas may disclose the terms of this Agreement to any Competent Authority and (in the case of the CSO) to any CSO Shipper and any person who intends to become a CSO Shipper, or (in the case of National Grid Gas) to any National Grid Gas Shipper and any person who intends to become a National Grid Gas Shipper.

5.7 The foregoing obligations with regard to Confidential Information shall remain in effect for three (3) years after this Agreement is terminated or expires.

6 Limitation of Liability

6.1 Each Party (the first Party) shall itself bear the risk of any loss, damage or liability which the first Party may suffer:

(a) in consequence of its System being connected at the CSP to the other Party's System, as a result of anything done or not done (whether negligently or otherwise) by the other Party;

(b) arising in connection with or as a result of the other Party's performance or failure to perform (whether negligently or otherwise) its obligations set out in Appendix 4, Appendix 5, or Appendix 6, except as expressly provided in any such Appendix,

and the first Party accordingly waives any liability (in tort or otherwise) of the other Party in respect of any such loss, damage or liability of the first Party.

6.2 Without prejudice to any other provision of this Agreement excluding or limiting the liability of either Party to other, and subject to Clause 6.5, neither Party shall be liable to the other Party for:

(a) any claim for loss, damage and/or expense of a third party; or

(b) any indirect loss, indirect damage, indirect cost and indirect financial harm;

of whatever kind and nature suffered by the other Party under or in connection with this Agreement, howsoever caused (including the default or negligence of the other Party or a breach of any duty owed in law by the other Party).

6.3 Nothing in this Agreement limits a Party's liability for injury or death caused by negligence.

6.4 Nothing in this Agreement limits a Party's liability for any loss, damage or liability caused by the wilful default of, or fraudulent misrepresentation or fraudulent concealment by, that Party.

6.5 Each Party (A) agrees to indemnify the other Party (B) on demand in respect of any costs, losses or damages incurred by Party B as a result of a relevant claim made by a Shipper of Party A against Party B arising out of any failure by Party B to comply with any provision of this Agreement (whether negligently or otherwise) in respect of:

(a) the determination and communication of the Processed Nomination Quantity or Confirmed Nomination Quantity in respect of such Shipper's Nomination; or

(b) the determination and communication of the quantities to be allocated (pursuant to a Nomination) to such Shipper.

6.6 For the purposes of Clause 6.5 a relevant claim is a claim in respect of costs, losses or damages of the Shipper arising pursuant to the provisions of Party A's Transportation Arrangements.

6.7 The indemnity in Clause 6.5 shall not apply in respect of any claim made by a Shipper pursuant to any contract between the Shipper and Party B.

7 Interconnection Provisions

7.1 The provisions of Appendix 1 (~~including the provisions of Part 2 to Appendix 1 for the monitoring and measurement of the pressure, quantity and quality of gas flowing from the~~

~~CSO System to the NGG System at the CSP~~Network Entry) are hereby given effect in relation to the SEP.

7.2 The CSO recognises and acknowledges that the Network Entry Provisions and Network Exit Provisions are designed to protect the NGG System and to ensure that National Grid Gas can safely transport Natural Gas within the NGG System in compliance with its safety case, and other legislative and contractual requirements.

7.3 The provisions of Appendix 2 (Network Exit) are hereby given effect in relation to the CSEP.

7.4 The provisions of Appendix 3 (in relation to Connection Facilities) are hereby given effect in relation to the Connected Systems Point.

7.5 ~~7.4~~ The provisions of Appendix 4 (in relation to nominations matching between National Grid Gas and the CSO) are hereby given effect in relation to the Connected Systems Point.

7.6 ~~7.5~~ The provisions of Appendix 5 (in relation to the operational balancing account between National Grid Gas and the CSO) are hereby given effect in relation to the Connected Systems Point.

7.7 ~~7.6~~ The provisions of Appendix 6 (in relation to the bundling of capacity and other capacity related matters) are hereby given effect in relation to the Connected Systems Point.

7.8 ~~7.7~~ The provisions of Appendix 7 (in relation to the monitoring and measurement of the pressure, quantity and quality of gas flowing between the CSO System and the NGG System at the CSP) are hereby given effect in relation to the Connected Systems Point.

7.9 The Parties acknowledge that paragraphs 3.3 and 3.7 of Appendix ~~3~~8 and Attachment C to Appendix ~~3~~8 implement the provisions of Article 10(2) of the Interoperability Code in respect of communications in Exceptional Events.

8 Change

8.1 The Operators may, at any time, amend this Agreement in accordance with this Clause 8.

8.2 Either Operator may propose an amendment to this Agreement to the other Operator by sending written notice to the other Operator (an **Amendment Notice**). The Amendment Notice shall include:

(a) a description of the relevant proposed amendment (a **Proposed Amendment**) in sufficient detail to enable the other Operator to evaluate the Proposed Amendment in full, together with its reasons for proposing the amendment;

(b) draft legal text implementing the Proposed Amendment;

(c) a statement of whether an amendment is required for compliance with a Legal Requirement applying to either Operator;

(d) the date by which the proposing Operator wishes the Proposed Amendment to be implemented (if any).

8.3 The receiving Operator (having given such Proposed Amendment reasonable consideration) shall within fifteen (15) Business Days after the date on which the Amendment Notice was sent (the **date** of the Amendment Notice), give notice to the proposing Operator:

(a) stating whether it agrees with the Amendment Notice, and if it does not, specifying what it disagrees with and the reasons for which it disagrees; and

(b) if the receiving Operator wishes to propose an alternative Proposed Amendment, setting out the details in accordance with Clause 8.2; and/or

(c) stating whether it requires further information to evaluate the Proposed Amendment (in which case the proposing Operator will provide such additional information as soon as reasonably practicable, and in any event within ten (10) Business Days) and the receiving Operator shall repeat the steps in Clause 8.3(a) and (b) following receipt of such additional information).

8.4 Representatives of the Operators shall meet within forty-five (45) Business Days after the **date** of the Amendment Notice to discuss:

(a) whether the Proposed Amendment(s) is an amendment on which:

(i) the Operators are required to consult under the Interoperability Code; or

(ii) the Authority may require the CSO to consult prior to seeking approval under Interconnector Licence Condition 3(1);

and if either Operator considers that the Proposed Amendment satisfies either of (i) or (ii), the Proposed Amendment will be a **Consultation Amendment**;

(b) whether an amendment is required for compliance with a Legal Requirement applying to that Operator (being **Legally Required**); and if the Operators are unable to agree, Clause 8.7 will apply;

(c) the Proposed Amendment and any alternative Proposed Amendment proposed under Clause 8.3(b), with a view to agreeing upon whether and if so what amendments are to be made to this Agreement.

8.5 Prior to the meeting to be held in accordance with Clause 8.4, National Grid Gas will notify the CSO whether it considers, in its sole discretion, acting reasonably, that the amendment relates to a Relevant Interconnection Provision under the Network Code.

8.6 If agreement is not reached on any matter set out in Clause 8.4(a) or (c) within thirty (30) Business Days after the meeting of the Operators' representatives pursuant to that Clause, directors or other senior representatives of the Operators with authority to settle any disagreement will, within twenty (20) Business Days of a written request from one Operator to the other, meet in a good faith effort to resolve any disagreement.

8.7 If, within fifty-five (55) Business Days after the date of an Amendment Notice, the Operators are unable to reach agreement on whether an amendment is Legally Required as set out in Clause 8.4:

(a) the Operators shall jointly consult with (including making available a director or other senior representative to meet jointly with) the Authority with a view to reaching agreement, and

(b) if the disagreement is not resolved within twenty (20) Business Days after such meeting with the Authority, the disagreement as to whether an amendment is Legally

Required shall be determined as a dispute in accordance with Clause 16, prior to either Operator taking any further steps in respect of such amendment.

8.8 Within one hundred and fifty (150) Business Days after the date of an Amendment Notice (or as soon as practicable after a determination under Clause 8.7(b)) the Operators will record;

(a) whether they agree upon the amendment to be made to this Agreement and (if so) the agreed form of that amendment; or

(b) if the Operators do not agree upon the amendment to be made to this Agreement, the forms of the amendment which each of them proposes (each being an **Alternate Proposed Amendment**).

8.9 Following the procedures in Clauses 8.1 to 8.8, subject to Clause 8.10:

(a) if the Operators have agreed on an amendment, Clause 8.11 shall apply;

(b) if the Operators have not agreed on an amendment, and an amendment is Legally Required, then:

(i) subject to paragraph (ii), Clause 8.13 shall apply;

(ii) if the Operators agree that the Proposed Amendment or an Alternate Proposed Amendment relates to a technical matter, Clause 8.12 shall apply.

8.10 Where Clause 8.9(b)(i) or 8.9(b)(ii) applies, if at any time before submission to the Authority, the Operators reach agreement on an amendment, Clause 8.11 will apply in respect of the amendment from that time onwards.

Operator agreement on proposed amendments

8.11 If the Operators have agreed on an amendment:

(a) where the amendment relates to a Relevant Interconnection Provision, National Grid Gas will, in accordance with the Network Code propose a Code Modification (but may in parallel seek to obtain approval of the NGG Shippers to the proposed amendment), unless National Grid Gas considers that it is entitled, pursuant to the Network Code, to agree the amendment because it is Legally Required, in which case it will consult with Users to the extent that National Grid Gas considers appropriate;

(b) if it is a Consultation Amendment the Operators will consult upon the amendment as set out in Clause 8.14 below;

(c) the CSO will submit the amendment, incorporating any changes as agreed between the Operators, to the Authority for approval under Interconnection Licence Condition 3(1), and, in the case of an amendment which is a Consultation Amendment, together with the results of consultation; and

(d) upon and subject to Authority approval under Interconnection Licence Condition 3(1) and (where applicable under paragraph (a)) approval of the relevant Code Modification, the Operators shall amend this Agreement to incorporate the amendment.

Non-Agreed Amendment - Technical Matter

8.12 If the Operators have not agreed on an amendment (where one is Legally Required), and they agree that the proposed amendment relates to a technical matter:

(a) before taking any of the steps in accordance with Clause 8.14, the Operators will refer both Alternate Proposed Amendments to an Expert to determine, in accordance with Clause 17, what amendment is necessary on the following basis:

(i) the amendment should (unless the Operators agree otherwise) be the minimum necessary for compliance with the relevant legal requirement; and

(ii) the amendment should create the least adverse consequences for either Operator consistent with enabling compliance with the relevant legal requirement,

and in so determining, the Expert may choose either Alternate Proposed Amendment or decide on another amendment; and

(b) the Expert shall have regard to both Alternate Proposed Amendments;

(c) the Expert shall be required to provide the text for the amendment that the Expert determines, and to determine the date from which such amendment is to be effective; and

(d) the amendment decided by the Expert shall be treated as an agreed amendment for the purposes of Clause 8.11 (and no other Alternate Proposed Amendment will be pursued further).

Non-Agreed Amendment - not a Technical Matter

8.13 If the Operators have not agreed on an amendment (where one is Legally Required) and they do not agree that the proposed amendment relates to a technical matter or agree that the proposed amendment does not relate to a technical matter:

(a) they will consult on both Alternate Proposed Amendments in accordance with Clause 8.14;

(b) the CSO will submit both Alternate Proposed Amendments (as modified by the relevant Operator under Clause 8.14(d) to the Authority for approval of one of them under Interconnection Licence Condition 3(1);

(c) if the Authority gives approval under Interconnection Licence Condition 3(1) to one of the Alternate Proposed Amendments, (and, where applicable, approves the relevant Code Modification) the Operators shall amend this Agreement to incorporate the approved amendment;

(d) if the Authority does not approve either Alternate Proposed Amendment, the proposals will lapse (but this does not prevent either Operator from proposing a further Alternate Proposed Amendment taking into account any comments made by the Authority when rejecting the proposals).

Consultation Amendments

8.14 The principles on which the Operators shall consult under Clauses 8.11 and 8.13 are:

(a) the Operators will jointly consult with their Shippers on the amendment or (as the case may be) both Alternate Proposed Amendments;

(b) if the amendment(s) relate to a Relevant Interconnection Provision, the consultation by National Grid Gas will be by way of consultation under the Network Code modification procedures (unless National Grid Gas obtains the approval of all NGG Shippers), and the CSO and the Code Administrator will endeavour to coordinate the consultations;

(c) in the case of an agreed amendment, the Operators may change the amendment following consultation undertaken pursuant to Clause 8.14(a) if the Operators agree on the changes to be made to the amendment, but not otherwise;

(d) in the case of Alternate Proposed Amendments, either Operator may change its Alternate Proposed Amendment following consultation (and in the case of a Relevant Interconnection Provision, to the extent permitted by the Network Code modification rules). If an Operator changes its Alternate Proposed Amendment it will discuss the changes with the other Operator.

Miscellaneous

8.15 Each Party shall bear its own costs of the preparation of all documentation and negotiation of changes, save as where otherwise agreed in writing by the Parties, except that the Expert's costs shall be paid in accordance with Clause 17.

8.16 The Operators may, except in respect of the period for consultation set out in Clause 8.14, vary, by agreement of all of the Operators, any of the time periods or procedures set out in this Clause 8.

8.17 Nothing agreed between the Operators amends this Agreement or otherwise binds the Operators (except as to these procedures) until and unless an amendment is approved by the Authority under Interconnection Licence Condition 3(1) and pursuant to a Code Modification, where applicable.

8.18 The Operators acknowledge that it is their mutual aim to conclude and implement an amendment to this Agreement within twelve (12) months of the date of an Amendment Notice in respect of that Amendment.

8.19 The Operators shall inform the Authority of the implementation of an amendment within ten (10) Days after its implementation.

9 Assignment

9.1 Either Operator may assign this Agreement to any Affiliate of such Operator, and with the consent of the other Operator (which shall not be unreasonably withheld) to any other person, provided that the assignee is capable of complying with the obligations of the assigning Operator (including compliance with any relevant Legal Requirement) and that the assignee shall enter into an agreement with the other Operator covenanting to be bound by the obligations of the assigning Operator under this Agreement as if the assignee had originally been named in this Agreement in place of the assigning Operator, whereupon the assigning Operator shall be released from all further obligations under this Agreement.

9.2 Neither Operator shall appoint any other person to operate its Connection Facilities without first informing and consulting with the other Operator as to such appointment and agreeing or procuring such other person to agree to such procedural and operational requirements as the other Operator may reasonably require in connection with such appointment.

10 Connection Facilities

10.1 The CSO and National Grid Gas agree to consult and cooperate with a view to ensuring that the objective in Clause 10.2 is satisfied.

10.2 The objective is that, without prejudice to Clause 2.2(a) and (b) of this Agreement, in all material respects the National Grid Gas Facilities and the CSO Facilities are and will continue to be technically and operationally compatible, as facilities by which the NGG System and the CSO System may safely be connected.

10.3 Where, by reason of any modification, other than a modification made to comply with any Legal Requirement, made or to be made by National Grid Gas to the National Grid Gas Facilities or by the CSO to the CSO Facilities, the objective in Clause 10.2 ceases or will cease to be satisfied, such Operator will reimburse to the other any material expenditure reasonably incurred by the other for the purposes of ensuring that the objective continues to be or is again satisfied.

10.4 Each Operator shall be entitled, upon reasonable notice to the other, to inspect the other's Connection Facilities (and to have access to the site thereof accordingly), for the purposes of determining whether the objective in Clause 10.2 is satisfied.

10.5 Without prejudice to any other agreement between National Grid Gas and the CSO in respect of the installation of the National Grid Gas Facilities or the CSO Facilities, subject to Clauses 10.3 and 10.4, nothing in this Agreement shall impose any obligations upon either Operator or take effect as a warranty by either Operator in relation to its System; and neither Operator will be liable to the other in respect of any failure or malfunction thereof.

11 Notices

11.1 Where any notice or other communication (other than operational communications and, where specified certain communications under Appendix 4, 5, and 6) is to be given or made by either Operator to the other under this Agreement, such communication shall be in writing and may be delivered to the recipient or sent by first class prepaid letter or facsimile transmission to the address of the recipient or to that Operator's facsimile transmission number specified below or such other address or number as may be notified hereunder by that operator from time to time for this purpose:

If to National Grid Gas:

Address:	National Grid Gas plc National Grid House Warwick Technology Park Gallows Hill Warwick CV34 6DA
Facsimile No.:	01926 656605

In each case marked for the attention of:

Gas Customer Manager – Customer Services

If to the CSO:

Address: BBL Company V.O.F.
PO Box 225
9700 AE Groningen
The Netherlands

Facsimile: +31 50 521 3545

In each case marked for the attention of:

CSO Representative - Gasunie Transport Services B.V.

Afd. CCP

Managing Director

such communication shall be deemed to have been given or made and delivered, if by letter, on the second Day after posting, if by delivery, when left at the relevant address, and (subject to Clause 11.2(b)) below) if by facsimile transmission between the hours of 09:00 and 17:00, at the time of receipt by the sender of confirmation of transmission and otherwise on the next Day after transmission.

11.2 Where a communication by facsimile is received in an incomplete or illegible form:

(a) if the recipient so requests (by telephone or otherwise), the sender shall promptly retransmit the communication to the recipient; and

(b) provided that the request for re-transmission was made within twenty-four (24) hours after time of receipt (in accordance with Clause 11.1) of the first facsimile, the communication shall not be deemed to have been received until the time (whether or not between 09:00 and 17:00 hours) of receipt by the sender of confirmation of such retransmission.

11.3 The procedures for giving operational communications (except for certain communications under Appendices 4, 5 and 6) are set out in Appendix ~~3~~ 8.

11.4 Communications and data exchange

(a) In this Clause 11.4:

(i) **Data** means data to be sent by one Party to the other Party under any provision of this Agreement;

(ii) a reference to a system is to the information technology system or systems established by a Party to produce, receive, handle and process Data.

(b) Where this Agreement makes specific provision as to how a particular communication between the Parties is to be sent, this Clause 11.4 applies subject to that provision.

(c) Each Party shall:

(i) make such arrangements (including providing and maintaining systems and making arrangements with third party providers) as are reasonably necessary to ensure it is able to send Data to and receive Data from the other Party pursuant to the provisions of this Agreement and in accordance with the further provisions of this Clause;

(ii) keep the other Party informed of the arrangements made pursuant to paragraph (a).

(d) The Parties shall coordinate and cooperate with each other in implementing Clause 11.4(c) in order to ensure the compatibility of their respective arrangements.

(e) In relation to Data, the arrangements in this Clause 14.4 are agreed in compliance with the requirements of Articles 22 and 23 of the Interoperability Code.

(f) Each Party (the first Party) shall:

(i) (in relation to Data to be sent electronically) ensure it has appropriate virus protection to manage the risk of sending infected files of Data to the other Party and of receiving infected files of Data from the other Party;

(ii) ensure that only authorised, appropriately qualified personnel are allowed to have access to and deal with the Data received from the other Party;

(iii) notify the other Party without delay of any unauthorised access which has or may have occurred to the first Party's system;

(iv) ensure it has appropriate security measures to prevent unauthorised access of its system;

(v) ensure that it has all necessary rights to send Data (as envisaged by the provisions of this Agreement) to the other Party, and to authorise the other Party to deal with the Data in the way envisaged under this Agreement;

(vi) make appropriate arrangements to maintain the security of Data received from the other Party;

(vii) maintain the confidentiality of Data received from the other Party, and only deal with such Data as envisaged by the provisions of this Agreement;

(viii) ensure that any third party to which the first Party transfers Data received from the other Party maintains its confidentiality and deals with it only as permitted under this Agreement;

(ix) (in relation to Data to be sent electronically) ensure the security and reliability of communications of Data to the other Party through agreed arrangements for encryption, electronic signatures and non-repudiation by signed confirmation;

(x) ensure the other Party is informed in a timely manner prior to any planned unavailability of the first Party's system.

(g) The standard required of each Party under Clause 11.4(f)(i), (iv) and (vi) is the standard of a Reasonable and Prudent Operator.

(h) If and for so long as any failure or unavailability (including any planned unavailability) of any Party's system occurs which disrupts or may disrupt the exchange of Data between the Parties, the Parties agree to establish and apply contingency arrangements.

(i) If a Party (Party A) fails to comply with the obligations in Clause 11.4(f):

(i) Party A will not have any liability to the other Parties (Party B) in respect of the failure, except as provided in Clause 11.4(j);

(ii) Party B may take any reasonable steps to protect itself and its systems from any adverse consequences of Party A's failure (which in theory may include suspending the transfer of Data for so long as such failure continues);

(iii) neither Party shall have any liability to the other (in respect of failed Data transfers) in a case where Party B takes any steps within Clause 11.4(i)(ii) above.

(j) In case of a breach by Party A of the obligations in Clause 11.4(f)(v), (vii) and (viii), Party A will indemnify Party B against any liability to any Shipper resulting from such breach (excluding any liability arising under any contract between Party B and such Shipper).

12 Entirety of Agreement

12.1 The documents and the documents referred to in this Agreement forming the Agreement shall be read as one and shall constitute the entire express agreement between the Parties with respect to the subject matter hereof and shall prevail and supersede all prior agreements, understandings, statements, representations, commitments, warranties and communications between the Parties hereto with respect to the subject matter hereof and no Party shall rely on or be bound by any of the foregoing not appearing in or incorporated by specific reference into the Agreement. Nothing in this Clause shall operate to exclude a Party's liability to the other for fraudulent misrepresentation.

13 Survival

13.1 The provisions of the Agreement which by their nature or from their context are intended to, or would naturally, continue to have effect after termination of the Agreement shall survive after termination.

14 Severability

14.1 If any term or provision in the Agreement shall be held to be illegal or unenforceable in whole or in part, under any enactment or rule of law, such term or provision or part shall to that extent be deemed not to form part of the Agreement but the validity and enforceability of the remainder of the Agreement shall not be affected.

15 Emergencies

15.1 Each Operator agrees to provide reasonable co-operation to the other with a view to ensuring safety in the event of any emergency circumstances affecting the other's System, provided that (without prejudice to any right of the affected Operator to take any action itself in such event) this shall not require the CSO to act in breach of any Transportation Arrangement of

the CSO nor National Grid Gas to act in breach of any Transportation Arrangement of National Grid Gas.

15.2 The procedures set out in Appendix ~~3~~8 include procedures for giving effect to Clause 15.1.

15.3 Without prejudice to any other right of National Grid Gas to reduce or discontinue the flow of gas at the CSEP, if, as a result of a Gas Deficit Emergency as declared by the network emergency co-ordinator affecting the NGG System or any part of that System which includes the CSEP, it is necessary for National Grid Gas to take steps to reduce the level of firm demand on the NGG System or any part of it, National Grid Gas may require that the rate at which gas is being offtaken from the CSEP is reduced:

(a) consistently with any Directive of a Competent Authority relating to such reduction, or

(b) in the absence of any such Directive, by a proportionate amount commensurate with the proportionate reduction in demand required in aggregate at points (other than the CSEP) on the NGG System or such part of it.

16 Dispute Resolution

16.1 General

16.1.1 For the purposes of this Clause 16 a **dispute** is any dispute or difference arising out of or in connection with this Agreement, except for any difference (other than pursuant to Clause 8.7(b)) concerning a Proposed Amendment or Alternate Proposed Amendment in accordance with Clause 8.

16.1.2 Where the Agreement provides or the Parties agree to refer a matter to an Expert for determination, either Party may refer a matter to an Expert in accordance with Clause 17.

16.1.3 A Party shall give a written notice to the other Party of a dispute including the subject matter of the dispute to the other Party to the dispute and shall provide relevant any reasonable supporting information as is reasonable with the notice.

16.1.4 The Parties shall use reasonable endeavours to resolve the dispute within thirty (30) Days after the date of receipt of the notice by the other Party under Clause 16.1.3.

16.1.5 If the Parties are unable to resolve the dispute within the period specified in Clause 16.1.4, either Party may by written notice to the other Party refer the dispute to expert determination under Clause 17, otherwise the dispute will be resolved in the English courts.

16.2 Interlocutory relief

Nothing in this Clause 16 or Clause 17 shall prevent any Party from seeking interim or interlocutory relief in any court.

16.3 Communications

16.3.1 Except where otherwise provided in Clause 17, any notice, submission, statement or other communication relating to any dispute to be given pursuant to Clause 16 by or to any Party or an Expert shall be in writing.

17 Expert Determination

17.1.1 A dispute which is to be referred to or resolved by expert determination under this Agreement or further to a reference by either Party under Clause 16.1.3 shall be determined by an individual appointed as expert in accordance with this Clause 17.

17.1.2 No person shall be nominated as a proposed Expert under Clause 17.3 unless that person has the requisite qualifications to resolve the dispute referable by virtue of his education, experience and training.

17.2 **Initial notice and selection of expert**

17.2.1 Any Party to a dispute which is to be resolved by or referred to expert determination shall give notice of the dispute in accordance with Clause 17.2.2.

17.2.2 The notice shall be given to each other Party and shall:

(a) provide brief details of the issues to be resolved; and

(b) nominate two (2) persons as proposed experts.

17.2.3 Within five (5) Business Days after any notice under Clause 17.2.1 was given, each Party (other than the Party giving such notice) shall by notice to each other Party nominate two (2) persons as proposed experts.

17.2.4 The Parties shall endeavour within ten (10) Business Days after the notice under Clause 17.2.3 was given to agree upon the selection of an Expert, and may meet for this purpose. If agreement is not reached on the expert to be appointed within a further five (5) Business Days, the matter shall be referred for resolution to the President for the time being of the Law Society whose decision shall be final and binding on the Parties to the dispute and whose costs of such reference shall be borne by the Parties to the dispute equally.

17.3 **Appointment of the expert**

17.3.1 Upon the selection under Clause 17.2 or 17.3.3 of an Expert, the Parties shall forthwith notify the Expert selected of his selection and request him to confirm within ten (10) Business Days whether or not he is willing and able to accept the appointment.

17.3.2 The notification to the Expert shall include the following:

(a) the names of the Parties and a summary of the dispute;

(b) a request that the Expert provides the confirmation required under Clause 17.6.1;

(c) a request for confirmation of the Expert's scale of fees;

(d) a statement that the Expert's fees and expenses will be paid as provided in Clause 17.7.2;

(e) a statement that the information disclosed in the notification is confidential and that it should not be disclosed, copied or revealed whether the appointment is accepted or not, except that such information may be disclosed by either Party to a Competent Authority and to such Party's Shippers, to the extent necessary for that Party to comply with its Transportation Arrangements or any Legal Requirement;

(f) a copy of this Clause 17.3.2; and

(g) a request for confirmation that the Expert is able and willing to act in accordance with the procedure set out herein.

17.3.3 If the selected Expert is unwilling or unable to accept the appointment, or shall not have confirmed his willingness and ability to accept such appointment within the period required under Clause 17.3.1, or the amount of his remuneration or terms of his appointment are not agreed within the period required under Clause 17.3.4, the Parties shall endeavour to agree upon the selection of another Expert within three (3) Business Days, failing which another Expert shall be selected in accordance with this Clause 17.

17.3.4 The Parties shall use their best endeavours to ensure that the terms of the contract of appointment of the Expert are agreed with him within ten (10) Business Days following his confirmation of ability and willingness to act, and agree that if the Parties are unable to agree with the expert the amount of his remuneration or any other terms of his appointment then:

(a) if one or more of the Parties is willing to agree what the Expert proposes, such amount or terms shall be determined by the President for the time being of the Law Society whose decision shall be final and binding on the Parties to the dispute and whose costs of such reference shall be borne by the Parties to the dispute equally;

(b) if none of the Parties is willing to agree what the Expert proposes, or the Expert is not willing to agree what is determined pursuant to paragraph (a), another Expert shall be selected in accordance with Clause 17.3.3.

17.3.5 The Expert shall be an independent contractor and the relationship of the Parties and the expert shall in no event be construed to be that of principal and agent.

17.3.6 The Expert shall not act as an arbitrator (and accordingly the provisions of the Arbitration Act 1996 shall not apply) nor as mediator.

17.4 **Timetable and Procedure**

17.4.1 No later than five (5) Business Days following his appointment, the Expert shall by giving reasonable notice to each Party convene a meeting with the Parties at which he shall raise any matters upon which he requires clarification and discuss with the Parties any additional procedural requirements he or they may have.

17.4.2 The Parties shall, not later than ten (10) Business Days after the appointment of the Expert, submit to the Expert and to each other Party written submissions of not more than ten (10) pages in length together with all supporting documentation, information and data which they wish to submit in respect of the dispute; and the Parties may also submit a statement of facts which they have agreed between themselves to the Expert.

17.4.3 Each Party may, not later than twenty (20) Business Days after the appointment of the Expert, submit to the Expert and each other Party written submissions of not more than ten (10) pages in length, together with any additional supporting documentation, information and data, in reply to the submissions made under Clause 17.4.2.

17.4.4 The Expert shall disregard any documentation, information, data or submissions supplied or made (other than pursuant to Clause 17.4.9) by any Party later than twenty (20) Business Days after his appointment unless the same are provided in response to a request from the Expert.

17.4.5 If the Expert shall wish to obtain independent professional and/or technical advice in connection with the dispute:

(a) he shall first provide the Parties with details of the name, organisation and estimated fees of the professional or technical adviser; and

(b) he may engage such adviser with the consent of the Parties (which consent shall not be unreasonably withheld) for the purposes of obtaining such professional and/ or technical advice as he may reasonably require.

17.4.6 The Expert may at his discretion and at any time request information from any of the Parties orally but shall only do so in the presence of the other Parties.

17.4.7 At any time after the period referred to in Clause 17.4.3 expires, with the written consent of the Parties, the Expert may (but shall not be required to) convene a hearing upon giving the Parties reasonable notice.

17.4.8 The Expert shall provide a draft of his determination, which shall be a report in writing giving reasons for the determination, to the Parties not later than thirty-five (35) Business Days following his appointment.

17.4.9 Each Party may, within ten (10) Business Days following delivery of the draft determination, submit to the expert any documentation, information, data, submissions or comments not exceeding five (5) pages in length on or in respect of the draft determination.

17.4.10 The Expert shall submit his final determination, which shall be a report in writing giving reasons for his determination of the dispute, to the Parties not later than fifty (50) Business Days following his appointment.

17.4.11 If the Expert fails to submit the final determination by the time required under Clause 17.4.10, at the request of any Party another expert may be appointed in accordance with the provisions of this Clause 17 and the appointment of the previous expert shall cease unless, before the appointment of the new expert, the previous expert shall have submitted his final determination hereunder, in which case the new expert shall be forthwith informed that his services will not be required.

17.5 **Effect of determination**

17.5.1 The Expert's determination shall (unless given after the appointment of another Expert under Clause 17.4) be final and binding on the Parties except in the event of fraud or where it is so clearly erroneous on its face that it would be unconscionable for it to stand, in which case another expert may be appointed in accordance with the provisions of this Clause 17.

17.6 **Conflict of interests**

17.6.1 The Expert shall confirm to the Parties before his appointment that he does not hold any interest or duty which would or potentially would conflict with the performance of his duties under his contract with the Parties.

17.6.2 If after his appointment the Expert becomes aware of any interest or duty which conflicts or potentially conflicts with the performance of his duties under his contract with the Parties, the Expert shall inform the Parties forthwith of such conflict giving full details thereof.

17.6.3 Any Party may within five (5) Business Days of the disclosure of any such conflict or potential conflict object to the appointment or continued appointment of an Expert, in which case the Expert shall not be or shall cease to be appointed and a new expert shall be selected and appointed in accordance with this Clause 17 (and the rejected Expert shall not be nominated for such selection).

17.7 **Costs**

17.7.1 Each Party shall bear its own costs including without limitation costs of providing documentation, information, data, submissions or comments under this Clause 17 and all costs and expenses of all witnesses and other persons retained by it.

17.7.2 The Expert shall provide the Parties with a breakdown of:

(a) his fees; and

(b) his reasonable expenses, including the fees of and reasonable expenses incurred by any technical or professional advisers.

17.7.3 The Expert's fees and expenses under Clause 17.7.2 shall be payable by the Parties in equal amounts, unless the Expert (having regard to the conduct of the Parties with respect to the dispute in question) shall direct in his final determination that such costs and expenses should be borne by one or some only of the Parties, in which case the Parties shall pay such fees and expenses in accordance with such direction.

17.7.4 If the terms of the Expert's appointment provide for the payment of his fees and expenses before the delivery of the final determination, the Parties shall pay such fees and expenses in equal amounts, and shall make adjustment payments inter se following any such direction as is referred to in Clause 17.7.3.

17.8 **Miscellaneous**

17.8.1 The Expert shall not be held liable for any act or omission unless it shall be shown that the Expert has acted fraudulently or in bad faith.

17.8.2 Without prejudice to a Party's legal obligation to disclose any applicable information to a Competent Authority all documentation, information, data, submissions and comments disclosed or delivered whether in writing or otherwise by any Party to the Expert or to the other Party either in connection with or in consequence of the appointment of the Expert shall be regarded and treated as confidential; and the Expert and the Parties shall not disclose any or all of the documentation, information, data, submissions and comments including the contents and copies thereof in any form except in connection with any proceedings in any court which a Party is not prohibited under this Clause 17. Nothing in this clause shall prohibit the disclosure by an Operator of the determination of a dispute to Shippers where in the reasonable opinion of the relevant Operator such determination directly affects such Operator's Shippers. Any Operator which proposes disclosure of information to a Competent Authority or Shipper shall first notify the other Operator of the intention to do so and shall use reasonable endeavours to agree the form and extent of such disclosure with the other Operator.

18 Third Party Rights

A person who is not Party to this Agreement may not enforce any term of this Agreement under the Contracts (Rights of Third Parties) Act 1999.

19 Governing Law

This Agreement shall be governed by and construed in accordance with English law.

20 Jurisdiction

Save where this Agreement provides for a dispute to be referred to expert determination, each Party agrees to submit to the exclusive jurisdiction of the English courts as regards this Agreement.

21 Maintenance

21.1 Without prejudice to Clause 6 and Appendix ~~3~~8 of this Agreement, the Operators agree to exchange information as to, and to take reasonable steps to co-ordinate, their respective plans for maintenance of their respective Connection Facilities and adjacent parts of the CSO System or NGG System.

21.2 Where the operation of any pipeline inspection or maintenance equipment in either System requires a specific even rate of delivery of gas to or offtake of gas from National Grid Gas's System at the CSP for any period, each Operator agrees to co-operate with the other (and with each CSO and/or NGG Shipper as appropriate) with a view to ensuring that such rate of delivery is maintained for such period.

IN WITNESS whereof representatives of each Operator have executed this Agreement the day and year above written.

SIGNED for and on behalf of
National Grid Gas plc

Signed:
Name:
Position:

In the presence of
Signed:

Name:

Position:

SIGNED for and on behalf of
BBL Company V.O.F.

Signed:
Name:
Position:

In the presence of:
Signed:

Name:

Position:

Appendix 1~~Appendix 1~~ - Network Entry

1 Scope

1.1 ~~**Part 1 –**~~This Appendix 1 sets out Network Entry Provisions~~1 Connected CSO Facilities and Individual~~ within TPD Section I 2.3.1 applying in respect of the System Entry Point~~(s)~~.

1.2 The Connected ~~CSO Facilities are~~Delivery Facility is the CSO ~~Facilities as described in Part 4 of this Appendix 1.~~System.

2 Gas Entry Conditions

2.1 These Gas Entry Conditions shall apply at the System Entry Point. For the avoidance of doubt, Hydrogen Sulphide and Total Sulphur will be measured at the Anna Paulowna Blending Site (as set out in ~~Part 2 of this~~ Appendix ~~1~~7) and such measurements will apply at the System Entry Point for the purposes of this Agreement.

2.2 Gas tendered for delivery by NGG System Users to the NGG System at the System Entry Point shall comply with the NGG System's statutory safety requirements, including any Legal Requirement regarding the composition of gas to be conveyed in the NGG System (including without limitation, Schedule 3 of the Regulations).

2.3 Gas tendered for delivery by NGG System Users to the NGG System at the System Entry Point shall not contain any solid, liquid or gaseous material which would interfere with the integrity or operation of the NGG System or any pipeline connected to such NGG System or any appliance which a consumer might reasonably be expected to have connected to the NGG System. In addition, all gas delivered to the NGG System at the System Entry Point shall be in accordance with the following values:

(a) Hydrogen Sulphide and COS: not more than 5.3 mg/NCM.

(b) Total Sulphur: not more than 52.7 mg/NCM.

(c) Hydrogen Content: not more than 0.1 mol%.

(d) Oxygen Content: not more than ~~10~~200 ppm.

(e) Hydrocarbon Dewpoint: not more than minus two degrees Celsius (-2°C) between 0 and 70 barg.

(f) Water Content: not such as would cause a water dewpoint more than minus ten degrees Celsius (-10ºC) at any pressure, between 0 and 70 barg.

(g) Wobbe Number: shall be between 49.79 MJ/NCM, and 54.23 MJ/NCM.

(h) Incomplete Combustion Factor (ICF): not more than 0.48.

(i) Soot Index (SI): not more than 0.6.

(j) Odour: it shall have no odour that may cause National Grid Gas to fail to meet its obligation under Part 1 of Schedule 3 of the Regulations.

(k) Total Inerts: no direct limit.

(l) Carbon Dioxide: 2.5% (molar).

(m) Gross Calorific Value shall be within the range 38.93 to 44.62 MJ/NCM (real gross dry).

(n) Delivery Temperature shall be between one and thirty eight degrees Celsius (1°C and 38°C).

(o) Pressure shall be that required to deliver gas into the NGG System taking account of the back pressure as the same shall vary from time to time. The delivery pressure shall not exceed seventy bar gauge (70 barg).

(p) Organo Halides Not more than 1.5 milligrams per NCM.

(q) Radioactivity Not more than 5 Becquerals per gram.

The values in paragraphs (a) to (q) are (where relevant) expressed on the basis of the reference temperature applying from ~~28 October 2015~~the 'Normal Reference' Effective Date and prior to that date such values shall be the values (if different) specified in this Agreement prior to ~~its amendment and restatement as of [ ]~~the First Amendment and Restatement.

The value in paragraph (d) applies with effect from the start of the Gas Day 11 December 2015.

The above Table A uses expressions and abbreviations which have meanings assigned to them in Schedule 3 to the Regulations, and will be subject to future modification by agreement of the Parties to ensure compliance with any relevant statutory gas requirement.

2.4 Pursuant to the provisions of the Regulations, the National Emergency Coordinator may, where it is necessary to prevent a supply emergency, authorise (for a specified period) gas not conforming with the requirements specified in Part I of Schedule 3 to the Regulations to be conveyed in the NGG System if the gas conforms with the requirements specified in Part II of Schedule 3 to the Regulations. In the event that the National Emergency Coordinator does so authorise gas not conforming with the requirements specified in Part I of Schedule 3 to the Regulations to be conveyed in the NGG System from the System Entry Point, the requirements in relation to Wobbe Number and incomplete Combustion Factor (ICF) set out in paragraph 2.3 above shall be amended as set out below for the period specified by the National Emergency Coordinator:

(a) Wobbe Number shall be between 49.79 MJ/NCM, and 54.23 MJ/NCM.

(b) Incomplete Combustion Factor (ICF) shall be not more than 0.48.

The values in paragraphs (a) and (b) are (where relevant) expressed on the basis of the reference temperature applying from ~~28 October 2015 and prior to that date such values shall be the values (if different) specified in this Agreement prior to its amendment and restatement as of [ ] 2015.~~the 'Normal Reference' Effective Date.

2.5 In order to meet the calibration ranges for typical analysis equipment, unless agreed otherwise by the Parties, the concentration ranges of the following components in the gas delivered shall be as follows:

Component	**% mole low**	**% mole high**
Methane	78.00	98.00
Ethane	0.00	12.00
Propane	0.00	7.00
i-Butane	0.00	1.00
n-Butane	0.00	1.00
neo-Pentane	0.00	0.35
i-Pentane	0.00	0.35
n-Pentane	0.00	0.35
C6+ fraction	0.00	0.35

2.6 The Measurement Provisions ~~shall be as~~are set out in ~~Part 2 of this~~ Appendix ~~1.~~7.

3 Points of Delivery

The point of delivery at the Connected System Point shall be the Transfer Point as described in Part ~~4 to~~1 of Appendix ~~1~~3 and as illustrated in the diagram contained in Part ~~4 to~~1 of Appendix ~~1.~~3.

Appendix 2 – Network Exit

Part 1 – Scope

1 Scope

1.1 This Appendix 2 sets out Network Exit Provisions applying in respect of the CSEP.

1.2 The CSO shall not install any facilities in or in connection with the CSO System for compressing Natural Gas for flow in either Direction, without first agreeing with NGG and executing amendments to this Agreement which are acceptable to NGG.

1.3 The Parties acknowledge and agree that:

(a) the CSO may choose to operate the CSO System:

(i) at certain times during the Gas Year, such that it is not capable of physical Reverse Flow; and

(ii) at other times during the Gas Year, such that it is not capable of physical Forward Flow; and

(b) it is the CSO's responsibility to take account of any such limitations in paragraph (a) in its Transportation Arrangements, including without limitation, in its rules relating to processing of CSO Nominations to obtain Processed Nomination Quantities.

Part 2 – Certain Network Exit Provisions

1 Point of offtake

1.1 For the purposes of TPD Section J4.3.1 (a) of UNC, the point of offtake at the CSEP is the Transfer Point as described in Appendix 3.

2 Measurement provisions

2.1 For the purpose of TPD Section J4.3.3 (a) and (c), the Measurement Provisions in Appendix 7 shall apply in relation to the CSEP.

3 Maintenance

3.1 For the purposes of TPD Section J4.3.1(f) of UNC, the allowable number of Days of Programmed Maintenance:

(a) in any one Planned Maintenance Period, shall be:

(i) subject to paragraph (ii), eight (8);

(ii) where the Programmed Maintenance includes pipeline inspections, fifteen (15); and

(b) in any three consecutive Planned Maintenance Periods, twenty (20).

4 Pressure

4.1 Pursuant to TPD Section J4.3.1(e), for the purposes of TPD Section J2.1.1(b)(iii), the pressure at which Natural Gas is to be made available for offtake at the CSEP is 25 barg.

4.2 For the purposes of TPD Section J2.2.1, (which is treated as applying at the CSEP) as at the date of the Second Amendment and Restatement, NGG Shippers will be taken to have been advised that the anticipated normal offtake pressure (as defined in the Network Code) in respect of the CSP is 45 barg

Part 3 – Flow Profiles and Rate Changes

1 General

1.1 Except with respect to paragraph 3.1, which shall apply in relation to each Day from the Second Amendment and Restatement, the provisions in this Part 3, apply only in respect of Days when Natural Gas is or is to be physically offtaken from the NTS.

1.2 References in this Appendix to the offtake of Natural Gas at the CSEP (or to the quantity or rate of such offtake) are to the net aggregate physical offtake.

1.3 Each Operator shall be entitled to take any operational step available to it to ensure the requirements of this Part 3 are complied with in respect of the rate of offtake of Natural Gas from the NTS at the CSEP.

1.4 The Maximum Network Exit Point Offtake Rate (as defined in the Network Code) (**MNEPOR**) at the CSEP is 184,780,632 kWh/d (7,699,193kWh/h).

2 Offtake Profile Notices - General

2.1 An Offtake Profile Notice (OPN) for the CSEP shall be in the form at Attachment H to Appendix 8 and shall set out:

(a) the Day to which it relates;

(b) the Exit Flow Profile;

(c) the Expected Daily Energy Quantity.

2.2 For the purposes of this Agreement, an **Exit Flow Profile** in relation to a Day is a profile of the quantity of Natural Gas (in kWh) to be offtaken from the NGG System at the CSEP in each Hour of the Day (**Hourly Quantity**).

2.3 References to the rate of offtake (including the Prevailing Offtake Rate) for any Hour in the Gas Day under an OPN are to the offtake rate (in kWh/hour) implied by the Exit Flow Profile, assuming that:

(a) the Hourly Quantity is offtaken at a flat rate over the Hour;

(b) where there is a change in the rate of offtake, such change occurs as a step change at the start of the Hour (and disregarding for these purposes only the ramp rate rules in paragraph 6).

2.4 An Exit Flow Profile:

(a) subject to paragraph 2.5, must show the same quantity of Natural Gas as being offtaken in each Hour in the Gas Day from:

(i) in the case of an initial OPN, the start of the Gas Day;

(ii) in the case of a revised OPN, the Change Effective Time;

(b) may not (in the case of a revised OPN) vary the Hourly Quantity (from that in the prevailing Exit Flow Profile) for any Hour before the OPN Effective Time.

2.5 For the Hour at the start of which a change of rate of offtake occurs, the Hourly Quantity for Hour (H) will pursuant to paragraph 2.7 be different to the quantity of Natural Gas to be offtaken in each following Hour in the Gas Day.

2.6 The offtake rate under an Exit Flow Profile shall not, for any Hour, exceed:

(a) 1/24 of the NGG Shippers' aggregate Interconnection Point Capacity at the CSEP for the Gas Day; or

(b) the flow rate specified in paragraph 1.4 of Part 3.

2.7 Where the Hourly Quantity for an Hour (H) in an Exit Flow Profile is different from the Hourly Quantity for the preceding Hour (H-1) under the prevailing OPN for the Day in which H-1 falls, the Hourly Quantity for Hour H must be set assuming that the rate of offtake changes from the beginning of Hour H and at the maximum rate of change permitted in paragraph 6.

2.8 The CSO may send OPNs by electronic file via email or other agreed method of communication.

2.9 Subject to paragraph 5, a purported OPN sent by the CSO which is not in accordance with the requirements of this Part, will not be valid or take effect as an OPN.

3 Initial OPNs

3.1 For each Day, the CSO shall send to NGG an initial OPN no later than 17:00 hrs (local GB time) on Day D-1.

3.2 If the CSO fails to send an OPN for the Gas Day by 17:00 hrs D-1, the CSO shall be deemed to have sent an initial OPN for the Gas Day with:

(a) an Expected Daily Energy Quantity of zero for that Day; and

(b) an Hourly Quantity of zero for each Hour in the Exit Flow Profile.

3.3 The Expected Daily Energy Quantity, for the Gas Day in an OPN shall be equal to the Agreed Target Quantity for the Day, based on the aggregate Confirmed Hourly Quantities for the Gas Day Nominations for that Gas Day, prevailing at the time that the OPN is submitted by the CSO.

4 Revised OPNs

4.1 The CSO may (during Day D-1 or D, on one or more occasions) send a revised OPN for the Gas Day, after the initial OPN was sent or deemed sent in accordance with paragraph 3.2, subject to the requirements in paragraph 4.3.

4.2 In relation to a revised OPN:

(a) the **Change Effective Time** is the first Hour of the Gas Day for which the Hourly Quantity in the revised OPN is different from the corresponding Hourly Quantity in the prevailing OPN;

(b) a reference to the increase or decrease in offtake is to the change in the rate of offtake at the Change Effective Time.

4.3 The CSO may not submit a revised OPN later than the start of the Change Notice Period before the Change Effective Time; and the CSO shall in any event submit a revised OPN with as much notice (of the increase or decrease in offtake) as practicable.

4.4 The **Change Notice Period** is:

(a) for an increase or a relevant cumulative increase in offtake which exceeds fifty percent (50%) of the MNEPOR, not less than four (4) Hours;

(b) for an increase or a relevant cumulative increase in offtake which exceeds twenty five per cent (25%) but does not exceed fifty percent (50%) of the MNEPOR, not less than two (2) Hours;

(c) for an increase or a relevant cumulative increase in offtake which does not exceed twenty five percent (25%) of the MNEPOR, not less than one (1) Hour; and

(d) for a decrease in offtake, not less than one (1) Hour.

4.5 For the purpose of paragraph 4.4 a relevant cumulative increase is the aggregate increase in rate of offtake under any two or more connected changes of the rate of flow, for the purpose of which two changes are connected where notice of the second-notified change is required (in accordance with paragraph 4.3) to be given before the first-notified change has occurred.

5 Request for non-compliant OPN

5.1 This paragraph 5 applies if the CSO submits:

(a) an OPN which does not comply with paragraph 2.4(a);

(b) an OPN with an offtake rate for any Hour which does not comply with the requirements in paragraph 2.6(a);

(c) a revised OPN with less notice than required under paragraph 4.3

(each a **non-compliant OPN**).

5.2 Where the CSO submits non-compliant OPN:

(a) if NGG determines that it is feasible (in accordance with the Uniform Network Code), consistently with the expectation in Section J4.5.7 (construed mutatis mutandis), for National Grid Gas to make Natural Gas available for offtake in accordance with such non-compliant OPN or the Exit Flow Profile contained in it, then NGG will accept the OPN; or

(b) if NGG determines that it is not feasible to make Natural Gas available for offtake in accordance with such request, then NGG may reject the OPN, as soon as is reasonably practicable but within 15 minutes, by giving a rejection notice (substantially in the form attached as Attachment K to Appendix 8) to the CSO.

5.3 Where NGG has rejected a non-compliant OPN, the CSO may submit a further revised OPN which does comply with the requirements referred to in paragraph 5.1.

5.4 If an OPN is rejected, it shall have no effect and (in the case of a revised OPN) the prevailing OPN shall remain in effect and in the case of an initial OPN, paragraph 3.2 applies.

5.5 It is recognised that at the date of the Second Amendment and Restatement, NGG has in practice, with respect to other CSEPs rarely exercised rights that it has in relation those CSEPs, which are similar in nature to NGG's rights in this paragraph 5 , and that this does not prevent NGG from exercising its rights under this paragraph, nor give the CSO any expectation that these provisions may not be enforced by NGG.

6 Ramp rates

6.1 During any period in which the rate of offtake of Natural Gas at the CSEP is increased (whether from zero or from a prevailing stable rate of offtake), the rate of such increase in the rate of offtake shall not exceed:

(a) except as provided in paragraph (b), one hundred and twenty (128) MW/minute;

(b) during the first two (2) minutes of the period in which the rate of offtake is increased, two hundred and fifty six (256) MW.

6.2 During any period in which the rate of offtake of Natural Gas at the CSEP is decreased (from a prevailing stable rate of offtake), the rate of decrease of the rate of offtake shall not exceed one hundred and twenty eight (128) MW/minute.

6.3 Paragraph 6.2 does not apply in the case of a shutdown of flow at the CSEP resulting from a Gas Deficit Emergency or emergency circumstances as provided in Clause 15

7 Operations

7.1 The CSO shall operate the CSO Facilities so as to flow Natural Gas from the NGG System to the CSO System at the CSEP in accordance with the Exit Flow Profile in the prevailing OPN, within the Tolerances, subject to complying with paragraph 6.

7.2 If the rate of offtake of Natural Gas at the CSEP deviates from the Prevailing Offtake Rate by more than the steering tolerance under paragraph 7.1, the CSO shall submit a revised OPN.

8 Change in direction of physical flow

8.1 Where the Direction of physical flow of Natural Gas at the CSP is to change:

(a) the CSO must give NGG notice (by phone) followed by written notice (by email) of such change in Direction as early as practicable specifying the proposed date and time of such change in Direction;

(b) it is the Parties' mutual preference that:

(i) wherever practicable the change in Direction takes effect from the start of a Day; and

(ii) if the change of Direction takes effect within (that is, later than the start of) a Day, then such Day is a weekday in Great Britain.

8.2 Whilst NGG would normally be able to accept a notice, issued pursuant to paragraph 8.1 above on no more than two hour's notice prior to the time for the change in Direction, NGG reserves the right to reject such a notice if received on less than twenty four (24) hours' notice prior to the time for the change in Direction.

Part 4 – Gas Quality

1 General

1.1 The specification of Natural Gas to be made available for offtake at the CSEP is:

(a) the specification in paragraph 2; or

(b) where paragraph 3 applies, the specification in accordance with that paragraph.

1.2 The provisions of this Part 4 are a Special Offtake Arrangement (as contemplated by TPD Section J4.3.1(a)) for the purposes of TPD Sections J2.1.1(b)(ii) and J2.3.1.

1.3 For the avoidance of doubt, Hydrogen Sulphide and Total Sulphur will be measured at the Anna Paulowna Blending Site (as set out in Appendix 7)] and such measurements will apply at the CSEP for the purposes of this Agreement.

1.4 Pursuant to the measurement rules in Appendix 7, the CSO shall monitor the quality of the Natural Gas made available for offtake at the CSEP and will notify National Grid as soon as possible after becoming aware of any non-compliance of the Natural Gas with the Applicable Offtake Requirements (as determined in accordance with paragraph 2)

2 Specification – base values

2.1 Subject to paragraph 3, the characteristics of Natural Gas made available for offtake from the NGG System at the CSEP will be within the following limits (the **base values**):

(a) Hydrogen Sulphide and COS: not more than 5.3mg/NCM.

(b) Total Sulphur: not more than 52.7mg/NCM.

(c) Hydrogen Content: not more than 0.1 mol%.

(d) Oxygen Content: not more than 200ppm.

(e) Hydrocarbon Dewpoint: not more than minus two degrees Celsius (-2°C) between 0 and 70 barg.

(f) Water Content: not such as would cause a water dewpoint more than minus ten degrees Celsius (-10ºC) at any pressure, between 0 and 70 barg.

(g) Wobbe Number: shall be between 49.79 MJ/NCM, and 54.23 MJ/NCM.

(h) Incomplete Combustion Factor (ICF): not more than 0.48.

(i) Soot Index (SI): not more than 0.6.

(j) Odour: it shall have no odour that may cause National Grid Gas to fail to meet its obligation under Part 1 of Schedule 3 of the Regulations.

(k) Total Inerts: no direct limit.

(l) Carbon Dioxide: 2.5% (molar).

(m) Gross Calorific Value shall be within the range 38.93 to 44.62 MJ/NCM (real gross dry).

(n) Delivery Temperature shall be between one and thirty eight degrees Celsius (1°C and 38°C).

3 Exceptional conditions

3.1 The base values in paragraph 2.1 are set on the assumption that all Natural Gas flowing from the NGG System into the CSO System at the CSEP consists of Natural Gas flowing through the Network (the **GSMR Network**) as defined in the Gas Safety (Management) Regulations 1996 (the **GSMR**).

3.2 Where part or all of the Natural Gas flowing from the NGG System into the CSO System at the CSEP is Natural Gas flowing into the NGG System at System Entry Points at Bacton and not from the GSMR Network (**Non-GSMR Gas**), then:

(a) NGG cannot determine or assess the specification of the Natural Gas being made available for offtake (or the extent to which the Non-GSMR Gas has been blended with Natural Gas from the GSMR Network) nor take steps to control such specification;

(b) the base values in paragraph 2.1 do not apply and the specification of Natural Gas made available for offtake at the CSEP will be the actual characteristics of the gas being made available;

(c) each Party will inform the other as soon as it is aware that the characteristics of Natural Gas made available for offtake are different to those in paragraph 2.1;

(d) it is the CSO's responsibility (pursuant to the measurement rules in Appendix 7) to monitor the quality of the Natural Gas offtaken at the CSEP; and

(e) NGG gives no assurances as to the quality of the Natural Gas being made available; and it is the right (as provided in paragraph 3.3) and responsibility of the CSO to decide whether and at what rate such Natural Gas should flow or continue to flow at the CSEP.

3.3 In the circumstances contemplated in paragraph 3.2, nothing prevents the CSO (pursuant to its Transportation Arrangements) from reducing or discontinuing the offtake of Natural Gas at the CSEP, provided that the CSO shall take account of any such action in the processing of CSO Nominations to obtain Processed Nomination Quantities.

3.4 NGG and the CSO shall comply with any velocity control protocol which may be agreed between the Operators from time to time.

4 Non-compliant Gas

4.1 If a volume of Natural Gas is offtaken at the CSEP, in circumstances contemplated in paragraph 3 the quality of which is (as permitted in paragraph 3) outside the base values:

(a) the CSO shall use reasonable endeavours to safely blend such Natural Gas so as to meet the specification requirements in its Transportation Arrangements prior to delivery into the GTS System;

(b) provided that the CSO has complied with paragraph (a), the CSO may request to change the physical direction of flow and flow up to such volume of Natural Gas back to NGG (**returned gas**); and

(c) NGG (acting reasonably) will consider and discuss such request with the CSO and will accept the request if:

(i) the CSO notifies NGG in writing at least two (2) hours prior to the time it wishes to change the physical direction of flow; and

(ii) there is Natural Gas available in the NGG System of such quality and at such pressures and rates of flow as will allow NGG to safely blend the returned gas so as to comply with GSMR requirements; and

(iii) the CSO and NGG agree a programme for flow of the returned gas including the maximum quantity of such Natural Gas which may be returned.

Appendix 3 – Connection Facilities

Part 1 – Description of Connection Facilities

1 The CSO Facilities

1.1 The CSO Facilities are shown schematically in the drawing in this Appendix 3.

1.2 The CSO Facilities extend from the isolation joint to the HIPPS valve as shown in the drawing.

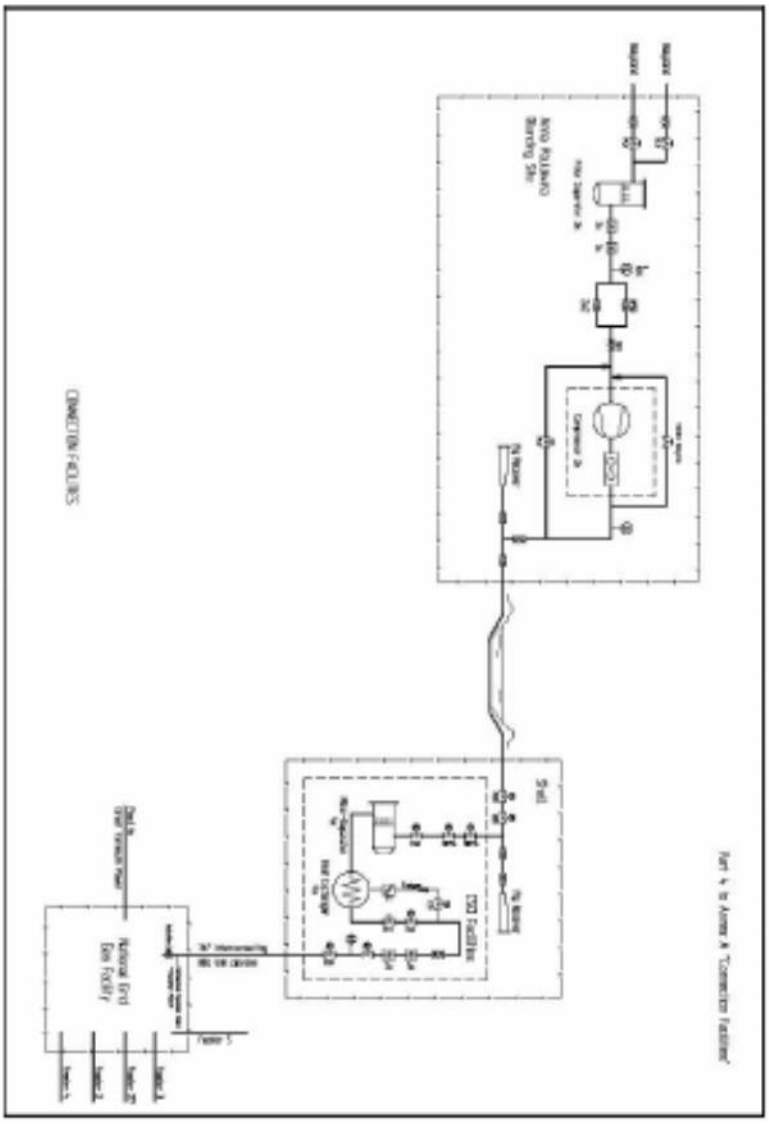
2 The National Grid Gas Facility

2.1 The National Grid Gas Facility is shown schematically in the drawing in this Appendix 3.

2.2 The National Grid Gas Facility extends from the isolation joint to the points at which the outgoing feeders (numbers 2,3,4,5 and 27) and the pipeline to the Great Yarmouth Power Station pass underneath the National Grid Gas Facility fence and the points at which the pipes to the Bacton distribution network offtake connect to the feeders within the National Grid Gas Facility compound all as shown in the drawing.

3 The Transfer Point

3.1 The "Transfer Point" is the downstream boundary of the CSO Facilities described in paragraph 1 above and the upstream boundary of the National Grid Gas Facility as described in paragraph 2 above ('downstream' and 'upstream' on the basis of Forward Flow).



Part 24 – Additional Requirements

The CSO shall maintain, repair and operate the CSO Facilities to the standard of a Reasonable and Prudent Operator, and National Grid Gas shall maintain, repair and operate the National Grid Gas Facility to the standard of a Reasonable and Prudent Operator.

In the event either party believes that the other Party is not complying with its obligations set out above, then (without prejudice to any rights the first Party may have under any CSO Facilities Agreement or Transportation Arrangement) it shall notify the other Party accordingly.

Following the giving of such notice, the Parties shall meet as soon as reasonably practicable to discuss the matter in good faith.

Part 3Part 2 – Measurement– CSO Facilities Owners

The owners of the CSO Facilities are:

E.ON Ruhrgas BBL B.V.

Fluxys BBL B.V.

Gasunie BBL B.V.

together the partners of “BBL Company V.O.F.”

Appendix 4 - Nominations

1 General

1.1 The arrangements in this Appendix 4 are agreed in order to be compliant with the requirements of Article 3€, 8, 10 and 21 of the Interoperability Code and Article 12(3) of the Balancing Code.

1.2 The arrangements in this Appendix shall apply with respect to Nominations in respect of the Gas Day(s) commencing on or after 1 October 2015, except that the provisions of this Appendix in relation to Single-Sided Nominations shall only apply in respect of the Gas Day(s) which commence on or after 1 November 2015.

2 Interpretation

2.1 In this Appendix the following terms have the following meanings:

CSO Nomination means a Nomination (including a Renomination) submitted by a CSO Shipper to the CSO which is not rejected by the CSO under the CSO's Transportation Arrangements;

Corresponding is defined in paragraph 5.3;

Counterparty Shipper means:

(a) in relation to a NGG Nomination, the CSO Shipper, or

(b) in relation to a CSO Nomination, the NGG Shipper

specified in such Nomination as the Shipper making a corresponding Nomination to the other Operator;

Daily Quantity means a Nomination Quantity (expressed as a daily quantity) for the Gas Day;

Double-Sided Nomination means a Nomination submitted by a NGG Shipper to NGG or by a CSO Shipper to the CSO which is not a Single-Sided Nomination;

Hourly Quantity means a Nomination Quantity (expressed as an Hourly quantity) for an Hour in the Gas Day;

Initial Nomination means a Nomination submitted before the Gas Day under which the nominated quantity is to flow from the start of the Gas Day;

Initiating TSO means the initiating transmission system operator as referred to in Article 8(2)(c) of the Interoperability Code;

Matching Timetable means the timetable set out in paragraph 7 for the actions required in each Nomination Cycle by each Operator under this Appendix;

Matching TSO means the matching transmission system operator as referred to in Article 8(2)(c) of the Interoperability Code;

NGG Nomination means a Nomination (including a Renomination) submitted by a NGG Shipper to NGG which is not rejected by NGG under the Network Code;

Nomination means a nomination by a Shipper to either Operator of a quantity of gas to be delivered to or offtaken from that Operator's System at the Connected Systems Point on a Gas Day or in each Hour of the Gas Day, and includes a Renomination;

Nomination Cycle means the cycle for processing and confirmation of Initial Nominations, and Renominations in each Hour, as described in paragraph 3;

Nomination Quantity means the quantity of gas nominated in a Nomination (or such quantity as processed or confirmed as described in this Appendix);

Renomination means a Nomination by a Shipper which revises an earlier Nomination for a Gas Day;

Renomination Effective Time means the time on the Gas Day from which a Renomination is to become effective;

Single-Sided Nomination means a Nomination submitted to NGG (as Initiating TSO), by a Shipper which is both a NGG Shipper and a CSO Shipper, which operates as both NGG Nomination and CSO Nomination;

2.2 In relation to a Nomination:

(a) the **Processed** Nomination Quantity is the Nomination Quantity adjusted by processing in accordance with the relevant Operator's Transportation Arrangements;

(b) the **Confirmed** Nomination Quantity is the quantity for which the Nomination is approved as determined by the CSO (as the Matching TSO) in accordance with paragraph 5.5;

(c) the Direction signifies whether the Nomination is for offtake from the NGG System and delivery to the CSO System, or offtake from the CSO System and delivery to the NGG System.

3 Nomination Arrangements

3.1 This paragraph 3 summarises certain provisions of each Operator's Transportation Arrangements relating to Nominations, on the basis of which this Appendix operates; and each Operator confirms that it considers its Transportation Arrangements to be consistent with this paragraph 3 and otherwise compatible with the provisions of this Appendix.

3.2 NGG Nominations specify Nomination Quantities as Daily Quantities, and CSO Nominations specify Nomination Quantities as Hourly Quantities.

3.3 Nominations contain the data necessary to enable each Operator to perform its responsibilities under paragraph 5.

3.4 Initial Nominations may be submitted no later than 13:00 UTC (12:00 UTC during day light saving periods) on Gas Day D-1.

3.5 Renominations may be submitted no earlier than 15:00 UTC (14:00 UTC during day light saving periods) on Gas Day D-1 and thereafter until 02:00 UTC (01:00 UTC during day light saving periods) on Gas Day D.

3.6 For a Renomination submitted within any hour (H):

(a) the Renomination is treated as submitted at the start of hour H+1 (**renomination submission time**);

(b) the Renomination Effective Time must be an Exact Hour no earlier than two (2) hours after the renomination submission time (and not earlier than the start of the Gas Day) and not later than 04:00 UTC (or 03:00 during day light saving periods) on the Gas Day.

3.7 For any Nomination, the Operator will notify the Confirmed Nomination Quantity to the Shipper no later than two Hours after:

(a) in the case of an Initial Nomination, the deadline for submission referred to in paragraph 3.5;

(b) in the case of a Renomination, the renomination submission time.

3.8 Where a Shipper does not submit an Initial Nomination by the relevant deadline for that Initial Nomination:

(a) the relevant Shipper shall be deemed to have submitted a Nomination with a Nomination Quantity of zero; and

(b) such deemed Nomination shall not be subject to the process described in paragraph 5.1 and the relevant Operator shall not determine nor communicate a Processed Nomination Quantity in respect of such deemed Nomination.

4 Roles of Operators

4.1 NGG shall be the Initiating TSO and the CSO shall be the Matching TSO.

4.2 The CSO (as Matching TSO) appoints NGG (as Initiating TSO) as its agent to receive Single-Sided Nominations from Shippers which are both NGG Shippers and CSO Shippers.

5 Responsibilities of TSOs

5.1 For each Nomination Cycle, in accordance with the Matching Timetable:

(a) NGG as Initiating TSO will send to the CSO:

(i) details of the Single-Sided Nominations submitted for that Nomination Cycle in accordance with paragraph 5.2 (to enable the CSO to determine Processed Nomination Quantities); and

(ii) details in respect of the NGG Nominations submitted for that Nomination Cycle in accordance with paragraph 5.3;

(b) the CSO as Matching TSO will:

(i) determine which NGG Nominations and CSO Nominations are Corresponding Nominations in accordance with paragraph 5.4;

(ii) convert the Processed Daily Quantities for the Corresponding NGG Nominations to Processed Hourly Quantities in accordance with paragraph 5.5;

(iii) in relation to the Corresponding Nominations, determine the Confirmed Hourly Quantities from the Processed Hourly Quantities in accordance with paragraph 5.6;

(iv) send to NGG the Confirmed Hourly Quantities for the Corresponding Nominations (together with the Processed Nomination Quantities in respect of the CSO Nominations), and inform NGG of any NGG Nominations which are not Corresponding Nominations;

(c) NGG (as Initiating TSO) will calculate Confirmed Nomination Quantities (as Daily Quantities) from the Confirmed Hourly Quantities in accordance with paragraph 5.7; and

(d) NGG and the CSO will inform their respective Shippers of the Confirmed Nomination Quantities.

5.2 The details of Single-Sided Nominations to be sent by NGG to the CSO under paragraph 5.1(a)(i) are:

(a) the identity of the Shipper submitting the Nomination;

(b) the identity of the Counterparty Shipper specified;

(c) the Nomination Type (single or double sided nomination);

(d) the Gas Day to which the Nomination relates;

(e) the Direction of the Nomination;

(f) the Nomination Quantity (as a Daily Quantity); and

(g) the proposed Renomination Effective Time.

5.3 The details of NGG Nominations to be sent by NGG to the CSO under paragraph 5.1(a)(i) are:

(a) the identity of the NGG Shipper submitting the Nomination;

(b) the identity of the Counterparty Shipper specified in the Nomination;

(c) the Gas Day to which the Nomination relates;

(d) the Direction of the Nomination;

(e) the Processed Daily Quantity;

(f) whether the Nomination is Single-Sided or Double-Sided; and

(g) the proposed Renomination Effective Time.

5.4 A NGG Nomination and a CSO Nomination are **Corresponding** Nominations where:

(a) the NGG Nomination is a Single-Sided Nomination; or

(b) in the case of Double Sided Nominations:

(i) they relate to the same Gas Day;

(ii) they are in the same Direction;

(iii) the Shipper identified as Counterparty Shipper in each Nomination is the Shipper which submitted the other Nomination; and

(iv) they are Initial Nominations, or are Renominations with the same renomination submission time and Renomination Effective Time.

5.5 The Processed Hourly Quantity (PHQ_N) in respect of a NGG Nomination is determined from the Processed Daily Quantity (PDQ_N) as follows:

(a) in the case of an Initial Nomination:

$$PHQ_N = PDQ_N / 24$$

(b) in the case of a Renomination:

$$PHQ_N = \{(PDQ_N - \sum_P CHQ_P) / H\}$$

where

$\sum_P$ is the sum over Hours in the Gas Day up to the Renomination Effective Time;

CHQ_P is the Confirmed Hourly Quantity for each Hour in the Gas Day up to the Renomination Effective Time under the last NGG Nomination prevailing at such Hour

H is the number of Hours of the Gas Day remaining from the Renomination Effective Time.

5.6 The Confirmed Hourly Quantity for Corresponding Nominations for each Hour is determined as follows:

(a) where the Processed Hourly Quantities under both Nominations is the same, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity;

(b) where the Processed Hourly Quantities under both Nominations is not the same, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity under the CSO Nomination, subject to paragraphs (c) and (d);

(c) where (at the start of the relevant Nomination Cycle) NGG has notified to the CSO an Exceptional Event under paragraph 6, and has not notified the cessation of the Exceptional Event, in relation to Nominations in the affected Direction, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity under the NGG Nomination;

(d) where (at the start of the relevant Nomination Cycle) NGG has notified to the CSO a Gas Deficit Emergency and has not notified the cessation of the Gas Deficit Emergency, in relation to Nominations in the affected Direction, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity under the NGG Nomination.

5.7 The Confirmed Daily Quantity (CDQ) for a NGG Nomination is determined from the Confirmed Hourly Quantities as follows:

$$CDQ = \sum CHQ$$

where

$\sum$ is the sum over Hours in the Day;

CHQ is, for each Hour in the Day, the Confirmed Hourly Quantity under the NGG Nomination or (in the case of a Renomination, for Hours up to the Renomination Effective Time) the Confirmed Hourly Quantity under the last NGG Nomination prevailing at such Hour.

6 Exceptional Events and Gas Deficit Emergencies

6.1 Either Operator (the **Affected Operator**) may (before or during the Gas Day) notify the other Operator:

(a) that there is an Exceptional Event or, in the case of NGG, a Gas Deficit Emergency affecting the Affected Operator's System, and the Direction (**affected** Direction) in which it is affected by the Exceptional Event; or

(b) that an Exceptional Event or Gas Deficit Emergency previously notified is no longer affecting the Affected Operator's System.

6.2 Where an Operator notifies an Exceptional Event or, in the case of NGG, a Gas Deficit Emergency (under paragraph 6.1(a)) to the other Operator, in relation to Nominations in the affected Direction:

(a) the Affected Operator may determine (in accordance with its Transportation Arrangements) revised Processed Nomination Quantities for its Nominations prevailing at the time;

(b) if NGG is the Affected Operator, NGG (as Initiating TSO) will notify the revised Processed Nomination Quantities to the CSO;

(c) the CSO (as Matching TSO) will redetermine and notify to NGG revised Confirmed Hourly Quantities for Nominations, on the basis of the revised Processed Nomination Quantities in accordance with paragraph 5.1(b);

(d) the Operators will notify the revised Confirmed Hourly Quantities to their respective Shippers in accordance with paragraph 5.1(d).

6.3 The steps in paragraph 6.2 will be taken in accordance with the Matching Timetable on the basis that the Nomination Cycle starts following the Hour during which the Affected Operator notifies the Exceptional Event or Gas Deficit Emergency or its cessation.

7 Matching Timetable

7.1 The Matching Timetable is as follows:

Matching Activity	Paragraph reference in this Appendix	Deadline for Provision (Relative to Commencement of Nomination Cycle)
NGG (as Initiating TSO) forwards Single Sided Nominations to the CSO (as Matching TSO)	5.1(a)(i)	Within 15 minutes
NGG (as Initiating TSO) forwards its Processed Nomination Quantities to the CSO (as Matching TSO)	5.1(a)(ii)	Within 45 minutes
The CSO (as Matching TSO) forwards its Processed Nomination Quantities and the Confirmed Hourly Quantities to NGG (as Initiating TSO)	5.1(b)(iv)	Within 90 minutes
NGG and the CSO notify Confirmed Nomination Quantities to Shippers	5.1(d)	Within 120 minutes

7.2 If in any Nomination Cycle either Operator is unable to meet any deadline in the Matching Timetable for sending data to the other Operator, it will before the deadline inform the other Operator, and will send the relevant data as soon as it is able to, and the other Operator will use reasonable endeavours to perform its activities when the data is sent.

8 Communications

8.1 This paragraph 8 sets out terms agreed between the Parties in connection with the exchange of data pursuant to this Appendix. The terms in this Appendix apply in addition to the terms of Clauses 5 and 11.4 of the Agreement.

8.2 The arrangements in this paragraph 8 are agreed in order to address the requirements of Article 21 of the Interoperability Code.

8.3 The Parties shall use document-based data exchange to send and receive data.

8.4 The Parties shall send data under this Appendix in the data format, and in accordance with the protocol, and by the network, each specified below:

(a) the data format to be used is: Edig@s-XML.

(b) the protocols to be used:

(i) by the CSO is AS2 and/or AS4 (document based exchange); and

(ii) by NGG is https://soap (web services integrated data exchange).

(c) the network to be used is internet.

8.5 As NGG's systems use integrated data exchange, NGG will (as part of its arrangements under Clause 11.4 of the Agreement develop, maintain and use an interface to convert data between the CSO's data exchange protocol specified in this paragraph 8 and the data exchange protocol which can be used with NGG's systems.

Appendix 5 - Operational Balancing Agreement

1 Definitions

1.1 For the purposes of this Appendix 5:

Aggregate Confirmed Quantity (Forward Flow) means the sum of the Confirmed Nomination Quantities of natural gas for offtake from the CSO System and delivery to the NGG System at the CSP on a Day;

Aggregate Confirmed Quantity (Reverse Flow) means the sum of the Confirmed Nomination Quantities of natural gas for offtake from the NGG System and delivery to the CSO System at the CSP on a Day;

Aggregate Net Confirmed Quantity means the difference between the Aggregate Confirmed Quantity (Forward Flow) and the Aggregate Confirmed Quantity (Reverse Flow);

Agreed Target Quantity means the quantity of gas which the CSO and NGG agree is to flow at the CSP on a Day;

Confirmed Nomination Quantity means a Confirmed Daily Quantity as defined in Appendix 4 (Nominations);

Cumulative Steering Difference means, for 30 September 2015, zero, and for any subsequent Gas Day (D), the sum of:

(a) the Cumulative Steering Difference for Gas Day D-1 (CSD_{D-1}), and

(b) the Cumulative Steering Difference Correction for Gas Day D ($CSDC_D$), a€(c) the Steering Difference (SD_D) for that Day

subject to paragraph 6.4;

Cumulative Steering Difference Correction means a quantity of gas that the Parties agree should be deducted from or added to the Aggregate Net Confirmed Quantity for a Day in accordance with paragraph 5 in order to determine the Agreed Target Quantity.

Daily Metered Quantity means the measured quantity of natural gas delivered to or offtaken from the NGG System at the CSP on a Day;

Part-Day Steering Difference is defined in paragraph 6.5;

Proportional Allocation means allocation to Shippers of quantities in proportion to their Confirmed Nomination Quantities;

Steering Tolerance means a tolerance on the Cumulative Steering Difference equal to 2930 MWh (equivalent to 0.30 MNCM) (and is a always positive number, to be compared with the absolute value of the Cumulative Steering Difference);

Steering Difference or **SD** means for a Day the amount calculated as the Daily Metered Quantity less the Agreed Target Quantity at the end of the Day.

1.2 Terms which are defined in Appendix 4 (Nominations) have the meanings given to them in that Appendix.

1.3 In this Appendix:

(a) a quantity (including a quantity under a Nomination, a quantity which flows or is to flow at the CSP, and a measured quantity at the CSP) is:

(i) positive where it is a Forward Flow;

(ii) negative where it is a Reverse Flow;

(b) for the avoidance of doubt:

(i) a positive quantity is greater than, or represents an increase in, a negative quantity;

(ii) a negative quantity (q_1) is greater than, or represents an increase in, another negative quantity (q_2) where the absolute value of q_1 is less than the absolute value of q_2;

and references to a quantity being less than, or representing a decrease in, a negative quantity shall be construed accordingly;

(c) references to the absolute value of a quantity are to its modulus (magnitude).

1.4 The Aggregate Net Confirmed Quantity (and quantities from which it is derived) and Agreed Target Quantity for a Day are calculated following each Nomination Cycle.

1.5 For the purposes of determining Agreed Target Quantity for a Gas Day (D), or whether the condition in paragraph 6.2(a) is met on Gas Day D, the SD and CSD for Gas Day D-1 shall be determined based on the Daily Measured Quantity for Gas Day D-1 as determined (in accordance with Appendix 7) as at 10:00 UTC (09:00 UTC during daylight saving time periods) on Gas Day D; and paragraph 8 shall apply if any subsequent adjustment is made in respect of the Daily Measured Quantity.

1.6 Unless otherwise agreed, where the CSO is to provide information or data to NGG under this Appendix 4, the CSO will do so by publishing such information or data on the National Grid Overview.

2 Flow Control

2.1 The Parties agree that the CSO is responsible for flow control at the CSP.

2.2 For each Day, the CSO shall use all reasonable endeavours to steer a quantity of gas equal to the Agreed Target Quantity prevailing following each Nomination or Renomination Cycle (but subject to the requirements of Appendix 1, Appendix 2 and Appendix 8).

3 OBA Management

3.1 For each Gas Day D, the CSO shall make available to NGG the SD and the CSD in respect of Gas Day D-1 within one hour of the start of Gas Day D; should access to the National Grid Overview be unavailable then the CSO shall communicate the SD and the CSD in respect of Gas Day D-1 by email to NGG within 90 minutes of the start of Gas Day D.

3.2 If NGG considers that the CSO has incorrectly calculated the SD or the CSD for a Day, NGG shall contact the CSO and they shall discuss and agree on the correct values of the SD and CSD.

4 Delivery Accuracy

The CSO shall use reasonable endeavours to ensure that the absolute value of the Steering Difference is kept as close as possible to zero.

5 Cumulative Steering Difference Corrections

5.1 The Parties shall cooperate to reduce the absolute value of the CSD in the event that the absolute value of the CSD exceeds the Steering Tolerance.

5.2 For each Gas Day D, if the absolute value of the CSD for Gas Day D-1 (CSD_{D-1}) exceeds the Steering Tolerance, there shall be a Cumulative Steering Difference Correction which (unless otherwise agreed) shall be an amount of absolute value equal to the CSD_{D-1} and shall be positive where CSD_{D-1} is negative and negative where CSD_{D-1} is positive.

5.3 If for Gas Day D the absolute value of CSD_{D-1} does not exceed the Steering Tolerance, there shall be no Cumulative Steering Difference Correction unless the Parties otherwise agree.

5.4 The Agreed Target Quantity for each Day shall be the sum of the Aggregate Net Confirmed Quantity and the Cumulative Steering Difference Correction for the Day.

5.5 The Agreed Target Quantity following each Nomination or Renomination Cycle for each Day shall be reflected in the DFN issued by the CSO at the time.

5.6 The Operators acknowledge and agree that the Cumulative Steering Difference represents a quantity of gas borrowed by one Operator from the other and which the other Operator is entitled to have returned under the arrangements in this Appendix. If this Agreement is terminated then (unless the Operators agree otherwise) the Operators will ensure gas flows before or at the time of termination such that any Cumulative Steering Difference at the time is returned to the Operator to which it is owed. If the Operator owing any Cumulative Steering Difference (i) becomes insolvent or (ii) on termination of this Agreement does not return such Cumulative Steering Difference, the Operator to which it is owed will be entitled to make a financial claim against the first Operator in respect of the value of the gas comprising the Cumulative Steering Difference.

6 Allocation Principles

6.1 The Parties' respective Transportation Arrangements provide for the quantities delivered and offtaken at the CSP to be allocated among each Party's respective Shippers in respect of each Day, based on the Confirmed Nomination Quantities, as follows:

(a) except where the Parties agree to implement Proportional Allocation for the Day in accordance with paragraph 6.2, the quantity allocated to each Shipper in each Direction is equal to the sum (by Counterparty Shipper) of the Confirmed Nomination Quantities for that Shipper in that Direction;

(b) if the Parties agree to implement Proportional Allocation for the Day in accordance with paragraph 6.2:

(i) the quantity to be allocated by the CSO to each CSO Shipper in each Direction is determined by the CSO in accordance with the allocation rules in the CSO's Transportation Arrangements (and on NGG's request the CSO will inform NGG of such allocation rules);

(ii) provided that the CSO provides to NGG the information for the Day in compliance with the requirements in paragraph 6.3, the quantity to be allocated by NGG to each NGG Shipper in each Direction is determined as the sum of the CSO Shipper Allocations in respect of the Nominations under which the CSO Shippers were Counterparty Shippers for that NGG Shipper in that Direction;

(iii) if the CSO does not provide to NGG such information for the Day, the quantity to be allocated by NGG to each Shipper in each Direction is determined in accordance with the alternative allocation rules in NGG's Transportation Arrangements.

6.2 NGG and the CSO may agree at any time within Gas Day D to implement Proportional Allocation for the Day if:

(a) the absolute value of the Cumulative Steering Difference, as forecast at such time by the CSO and discussed with NGG, at the end of the Gas Day D will or would exceed the Steering Tolerance;

(b) the Parties, having used their reasonable endeavours, are unable (at such time) to agree to allow the absolute value of the Cumulative Steering Difference to exceed the Steering Tolerance after the Day for a period of time;

(c) at or before such time on Gas Day D an Exceptional Event has occurred in relation to either System which affected the ability of NGG or the CSO (the affected Party) to deliver gas to or accept gas for delivery from the CSP and which, in the reasonable opinion of the affected Party, occurred too late in the Day to be resolved, using the constraint management tools available to that Party, before the end of the Day; and

(a) the Parties have so notified their respective Shippers active at the CSP that Proportional Allocation will apply.

6.3 If for a Day the Parties agree to implement Proportional Allocation in accordance with paragraph 6.2, the CSO shall:

(a) allocate (as provided in paragraph 6.1) to each of its Shippers for the Day a quantity in respect of each Nomination submitted by such Shipper for the Day, such that the net sum of:

(i) such quantities for all Shippers and all Nominations in both Directions,

(ii) the Cumulative Steering Difference Correction, and

(iii) the Part-Day Steering Difference, if any

is equal to the Daily Metered Quantity;

(b) provide to NGG no later than Gas Day D+5 the following information:

(i) for each Nomination submitted by each CSO Shipper,

the quantity allocated (under paragraph (a)) to such CSO Shipper in respect of such Nomination (**CSO Shipper Allocation**); and

(ii) the Part-Day Steering Difference for the Day.

6.4 In the event of Proportional Allocation for a Gas Day D the Cumulative Steering Difference for Day D shall be determined as the sum of:

(a) the Cumulative Steering Difference for Gas Day D-1;

(b) the Cumulative Steering Difference Correction (if any) for Gas Day D; and

(c) the Part-Day Steering Difference for Gas Day D.

6.5 For the purposes of this Appendix:

(a) the **Part-Day Steering Difference** for a Day on which Proportional Allocation applied, shall be the quantity determined by the CSO as the sum of the Hourly steering differences for those Hours of the Gas Day for which, under the CSO's Transportation Arrangements, the CSO made shipper allocations equal to nominated quantities; and

(b) for such an Hour, the **hourly steering difference** is the amount determined by the CSO as the amount calculated (after taking into account targeted correction of steering difference) as:

(i) the Confirmed Hourly Quantities for that Hour, less

(ii) the measured quantity of natural gas delivered to or (as the case may be) offtaken from the NGG System at the CSP in that Hour.

7 Proportional Allocation Request Notice ("PARN")

7.1 The PARN shall be used by a Party in order to make a request to the other Party that the allocations shall be calculated on a proportional basis as described in Article 6.1(b) (rather than a deemed basis as described in Article 6.1(a) for the Gas Day indicated on the PARN.

7.2 The PARN shall be valid and timely delivered if the Party requesting proportional allocation has sent the notice to the other Party at the latest or within 2 Hours before the Hour on Gas Day D that Proportional Allocation will apply and if the criteria in paragraphs 6.2(a) 6.2(b) 6.2(c) and (a) and have been met.

8 Adjustments of Daily Metered Quantity

8.1 The Daily Metered Quantity in respect of a Gas Day or Gas Days may be revised pursuant to the arrangements in Appendix 7.

8.2 In the event that Daily Metered Quantity is increased in respect of one or more Gas Days, the aggregate amount of such increase shall be added to the Cumulative Steering Difference for the Gas Day on which the revision is agreed or determined.

8.3 In the event that Daily Metered Quantity is reduced in respect of one or more Gas Days, the aggregate amount of such reduction shall be deducted from the Cumulative Steering Difference for the Gas Day on which the revision is agreed or determined.

8.4 The Operators may agree to take such revision into account (in accordance with paragraph 8.2 or 8.3) in calculating the CSD for a Gas Day later than the Gas Day specified in paragraph 8.2/8.3, or to apportion such revision over more than one such Gas Day.

8.5 Paragraphs 8.2 and 8.3 will not apply with respect to an adjustment to a Daily Metered Quantity made later than the Exit Close-Out Date.

9 Error correction

9.1 Subject to paragraph 9.3, if a Shipper of either Operator notifies that Operator, or either Operator otherwise becomes aware, that it has or may have made an error in implementing the provisions of its Transportation Arrangements or Appendix 4 (Nominations) or this Appendix in respect of (1) the determination of the Processed Nomination Quantity or Confirmed Nomination Quantity in respect of a Nomination submitted by a Shipper, or (2) the determination of the quantities to be allocated (pursuant to such a Nomination) to a Shipper:

(a) that Operator (A) shall so notify the other Operator (B) providing details of the error and the Shipper and Nomination affected by the error;

(b) Operator B shall notify the Counterparty Shipper of the error;

(c) Operator A shall investigate the error (where appropriate, in consultation with Operator B and/or either Shipper);

(d) if it is confirmed that there was an error, the Operators shall determine, and notify to the Shipper and Counterparty Shipper, what redeterminations are needed to correct the error;

(e) if both the Shipper and the Counterparty Shipper accept (by notice to their respective Operator) the proposed correction notified under paragraph (d), the Operators shall give effect to such correction by redetermining (for the purposes of their respective Transportation Arrangements) the Confirmed Nomination Quantities or (as the case may be) quantities allocated for the Shipper and Counterparty Shipper;

(f) where the error was notified within the Day on which it occurred, the Operators will endeavour to do the foregoing within the Day.

9.2 If the correction of an error gives rise to a change in the calculation of the Steering Difference for the Day, the amount of the change shall be added to the Cumulative Steering Difference for the Day on which the error was corrected.

9.3 No correction of an error in relation to a Day shall be made under this paragraph 9 later than the Exit Close-out Date (as defined in the Network Code).

Appendix 6 - Capacity

1 Introduction

1.1 This Appendix 6 sets out arrangements between the Operators in connection with the allocation to Shippers and holding, surrender and transfer by Shippers of bundled capacity at the Connected Systems Point:

(a) the allocation to Shippers and holding, surrender and transfer by Shippers of bundled capacity at the Connected Systems Point;

(b) the coordination required by the Operators in relation to interruptible capacity, at the Connected Systems Point; and

(c) capacity maximisation, at the Connected Systems Point.

1.2 The arrangements in this Appendix 6, in addition to the other arrangements in this Agreement are agreed in compliance with the requirements of Articles 4, 5, 6, 7,19, 20, 22, 23, and 27 the CAM Code.

1.3 The arrangements in this Appendix shall apply with respect to IP Capacity in respect of the Day(s) which commence on or after 1 November 2015.

2 Interpretation

In this Appendix:

Auction means an auction of IP Capacity of a particular period, Direction and class;

Auction Premium means the amount by which the clearing price in an Auction exceeds the starting price;

Bundled means, in relation to IP Capacity in one System, that it is, or is to be, bundled with IP Capacity in the other System either (a) for the purposes of allocation in a single Auction, or (b) (when held by a Shipper) for the purposes of the transfer of (and certain other transactions in respect of) such IP Capacity; and a reference to Bundled IP Capacity held by a Shipper in either System is to what is recorded as Bundled by the Operator of that System; and **Unbundled** shall be construed accordingly;

Bundled Capacity Auction means an Auction of Bundled IP Capacity;

class of IP Capacity means whether it is firm or interruptible;

IP Capacity means, for each Operator, capacity (defined in accordance with the Operator's Transportation Arrangements) in the Operator's System which may be held by that Operator's Shippers in connection with the offtake or (as the case may be) delivery of gas to that System at the Connected Systems Point; and where applicable a reference to IP Capacity is to IP Capacity in each System of the same period, Direction and class and (where applicable) amount;

period of IP Capacity means the period for which such IP Capacity (in the same amount for each Day of such period) is or is to be allocated or held;

Platform Operator means the operator of the booking platform on which certain activities by the Operators and/or their Shippers are to be carried out;

Platform Rules and Processes means the rules, systems, processes and algorithms of the Platform Operator applied and used by the Platform Operator in performing the functions contemplated by this Agreement.

3 Transportation Arrangements

3.1 This paragraph 3 summarises certain provisions of each Operator's Transportation Arrangements relating to Auctions and Bundled IP Capacity, on the basis of which this Appendix operates; and each Operator confirms that it considers its Transportation Arrangements to be consistent with this paragraph 3 and otherwise compatible with the provisions of this Appendix.

3.2 IP Capacity is allocated to Shippers by way of Auctions:

(a) for capacity products (defined by period, and by Direction and class) and available amounts of capacity, and

(b) held at intervals and at times, and

(c) under ascending clock or uniform price auction algorithms,

which comply with the CAM Code.

3.3 IP Capacity in one System is to be Bundled with IP Capacity in the other System for the purposes of allocation by Auctions to the extent required by the CAM Code (and otherwise may be allocated Unbundled).

3.4 Bundled IP Capacity is to be allocated to Shippers in a single Auction on a single booking platform.

3.5 The amount of technical IP Capacity which is to be withheld from allocation in an Auction for an annual period is:

(a) for the first 5 gas years from the Auction date, the lesser of the available IP Capacity or 10% of technical capacity;

(b) for the remaining 10 gas years, the lesser of the available IP Capacity or 20% of technical capacity.

3.6 The amount of IP Capacity in one System which may be allocated in an Auction for an annual period (other than the following year) Unbundled depends on the amount of IP Capacity in the other System which is already allocated.

3.7 The starting price in any Bundled Capacity Auction is the sum of reserve prices specified by each Operator.

3.8 Any Auction Premium in a Bundled Capacity Auction is to be allocated between the Operators in percentages agreed by them.

3.9 In a Bundled Capacity Auction under the ascending clock auction algorithm:

(a) the large price step is to be the sum of large price steps specified by each Operator;

(b) the small price step is to be a specified fraction (agreed by the Operators) of the large price step.

3.10 Where, in relation to the System of one Operator (Operator A):

(a) under Operator A's Transportation Arrangements, IP Capacity may be held by Shippers in connection with the offtake or delivery of gas from or to Operator A's System both at the Connected Systems Point, and at another point of interconnection between Operator A's System and another gas transmission system, and

(b) (in relation to any Auction) the amount of IP Capacity (in Operator A's System) available for allocation in aggregate at the Connected Systems Point and the other Connected Systems Point is less than the sum of the amounts of IP Capacity in the other Operator's System and capacity in the other gas transmission system available for allocation,

then there are linked Auctions (under Operator A's Transportation Arrangements) of IP Capacity Bundled with IP Capacity in the other Operator's System and bundled with capacity in such other gas transmission system.

3.11 If an Auction (the **first** Auction) under the ascending clock algorithm has not closed:

(a) where the next relevant Auction is under the ascending clock algorithm, by the fifth Business Day;

(b) where the next relevant Auction is under the uniform price algorithm, by the Business Day,

before the information publication date for the next relevant Auction, the first Auction will be discontinued without closing (where the next relevant Auction is the next Auction for IP Capacity in the same Direction as and for a period which includes any Day(s) in the period of the first Auction).

3.12 A Shipper holding Unbundled IP Capacity in both Systems may elect that such IP Capacity is to be Bundled by a notification to either Operator.

3.13 A Shipper may offer to surrender IP Capacity for reallocation in an Auction; and where a Shipper offers to surrender Bundled IP Capacity in one System, the Operators may agree that the offer is only valid if the Shipper has offered to surrender equivalent Bundled IP Capacity in the other System.

3.14 A transfer by a Shipper of Bundled IP Capacity in one System to another Shipper will not be valid unless the Shipper also transfers the IP Capacity in the other System with which it is Bundled to that other Shipper.

3.15 An Operator will record the amount of the IP Capacity in its System held by each Shipper which is and is not Bundled.

3.16 A Shipper holding Bundled IP Capacity in one System may not voluntarily terminate its Transportation Arrangements with the Operator of that System.

3.17 In order to participate in an Auction for or surrender or transfer IP Capacity, Shippers are required to be party to an agreement with the Platform Operator under which the Platform Operator will perform the functions contemplated by the relevant Operator's Transportation Arrangements

3.18 The arrangements described above will commence as follows:

(a) the first Auctions of Bundled IP Capacity:

(i) for a period of Within-day, will be for 1 November 2015;

(ii) for a period of one Day, will be for 1 November 2015;

(iii) for a period of one month, will be for December 2015;

(iv) for a period of a quarter, will be for quarters in the Gas Year 2016/17;

(v) for a period of a year, will be for the Gas Years 2016/17 to 2030/31;

(b) transfers and surrenders of Bundled IP Capacity may be made for periods commencing on or after 1 November 2015 (or earlier if agreed between the Operators).

4 Platform Operator

4.1 The Operators agree that the Platform Operator for the Connected Systems Point will be PRISMA European Capacity Platform GmbH.

4.2 The Operators may agree to change the Platform Operator (subject to the requirements in their respective Transportation Arrangements), but neither Operator shall change the Platform Operator without the other Operator's agreement to do so.

4.3 The functions to be performed by the Platform Operator are:

(a) in relation to Auctions:

(i) determining amounts of Bundled and Unbundled IP Capacity available for allocation in each Auction;

(ii) publication of Auction information and holding of Auctions (in respect of both Bundled and Unbundled IP Capacity);

(b) receipt and validation of transfers by Shippers of IP Capacity (both Bundled and Unbundled);

(c) receipt and validation of surrenders by Shippers of IP Capacity (both Bundled and Unbundled).

4.4 Each Operator shall be party to an agreement with the Platform Operator under which the Platform Operator agrees to perform the functions contemplated by this Appendix and by that Operator's Transportation Arrangements.

4.5 Nothing in this Appendix requires the Operators to enter into or incur any joint obligations or liabilities to the Platform Operator; and each Operator is severally responsible for any fees or

other amounts payable to the Platform Operator in connection with its agreement under paragraph 4.3.

4.6 Each Operator considers that the Platform Rules and Processes are compatible with its Transportation Arrangements and with the provisions of this Appendix.

4.7 If any incompatibility is found between the Platform Rules and Processes and the provisions of this Appendix the Operators will discuss the matter with a view to agreeing whether to amend this Appendix, seek a modification of the Platform Rules and Processes and/or pursue a modification of the relevant Operator's Transportation Arrangements.

4.8 Each Operator shall:

(a) send to the Platform Operator the information necessary to enable the Platform Operator to hold Bundled Capacity Auctions and perform its other functions contemplated by this Appendix; and

(b) where the Platform Rules and Processes allow or require that Operator to make choices, make such choices as are required to give effect to this Appendix.

4.9 If (notwithstanding each Operator complying with paragraph 4.8) any question arises as to how the Platform Operator is to carry out its functions under this Appendix 6, the Operators agree to discuss the question with a view to agreeing prior to giving any instruction to the Platform Operator in relation to such question.

5 Capacity Auction details

5.1 The Operators agree that Bundled IP Capacity in each System will be allocated in a single Auction (and in the case described in paragraph 3.9 in linked Auctions).

5.2 The Operators agree that the small price step in a Bundled Capacity Auction under an ascending clock algorithm shall be one fifth (1/5) of the large price step.

5.3 The Operators agree that the Auction Premium in any Bundled Capacity Auction will be shared between them as to one half (1/2) each.

5.4 For the purposes of Auctions, IP Capacity will be expressed in kWh/hour.

5.5 For the purposes of Auctions, the prices of IP Capacity will be expressed in both euro (€) and Pounds Sterling (£).

6 Bundled IP Capacity held by Shippers

6.1 If a Shipper submits to either Operator (A) a request that IP Capacity should be Bundled, and the request specifies the Direction and amount of the IP Capacity and the period for which it is to be Bundled, and Operator A would (under its Transportation Arrangements) accept the request, then:

(a) Operator A will send the request to the other Operator (B) within ten (10) Business Days after receiving the request from the Shipper;

(b) Operator B will notify Operator A whether Operator B (under its Transportation Arrangements) accepts the request, within 10 Business Days after receiving the request from Operator A;

(and each Operator confirms that, under its Transportation Arrangements, it is appointed as agent by its Shippers to send and receive such requests to or from the other Operator).

6.2 If a Shipper offers to surrender Bundled IP Capacity in one System, the offer will not be valid unless the Shipper offers to surrender equivalent Bundled IP Capacity in the other System.

6.3 The Operators agree that neither of them will notify the other of any Shipper ceasing (under either Operator's Transportation Arrangements) to hold Bundled IP Capacity in either System, and neither Operator will be required to adjust its record of the Bundled IP Capacity held by its Shippers on the basis of any such notification. Sections 6.3.2 and 6.3.3 of the European Interconnection Document of the uniform network code do not apply.

6.4 If either Operator gives notice to a Shipper holding Bundled IP Capacity in its System to terminate the Transportation Arrangements with the Shipper, the Operator shall inform the other Operator of such termination and of the amount of such Bundled IP Capacity held by the Shipper at the time of termination.

6.5 The Operators agree that transfers of Bundled Capacity will be transfer of use and OTC pursuant to the Platform Rules and Processes.

6.6 If either Operator (A) notifies the other Operator (B) that a Shipper holding Bundled IP Capacity in Operator A's System wishes voluntarily to terminate the Transportation Arrangements with Operator A with effect from a specified date, Operator B will inform Operator A whether Operator B objects to such termination on the grounds that the Shipper holds Bundled IP Capacity in Operator B's System on or after that date.

7 Coordination of Interruptible Capacity

7.1 The Operators agree that the minimum interruption lead times for interruptible capacity is 75 minutes before the hour bar from which such interruption is to be effective.

7.2 Each Operator shall inform the other Operator as soon as practicable after giving notice of interruption of interruptible capacity.

8 Capacity Optimisation Process / Analysis in relation to IP Capacity

8.1 The Operators shall meet once per year, in advance of the publication of the amount of IP Capacity to be made available in the annual Auction of yearly IP Capacity, to jointly analyse the technical IP Capacities in each System.

8.2 The analysis shall include a detailed comparison between the Operators of:

(a) technical IP Capacity in each System; and

(b) IP Capacity in each System available for allocation in each Auction (as described in paragraph 8.3).

8.3 Any differences shall be noted and quantified, and as much as possible, the reasons for differences should be identified and recorded. The analysis shall take account of assumptions made in the EU-wide 10 year development plan, existing national investment plans, relevant obligations under the applicable national laws, and any relevant contractual obligations.

8.4 The Operators shall also assess relevant parameters, including but not limited to: pressure commitments, relevant supply and demand scenarios, and calorific values. Options for adjusting these parameters will be discussed and examined. The Operators shall also have regard to information that Shippers may provide with regard to expected future flows. In addition, the relevant Operator's regulatory regime and obligations will be considered as part of this process.

8.5 Following completion of the analysis, the Operators will identify any potential steps and actions that can be taken to increase technical IP Capacity, and hence increase the offer of Bundled Capacity. For any action to increase technical IP Capacity proposed, then the effects of that action shall be considered, and shall include but not be limited to:

(a) under what timetable can the proposed action be implemented;

(b) are there any increased costs associated with the proposed action, and does the regulatory regime(s) allow for recovery of those costs (especially if there are any cross-subsidies between the Operators);

(c) does the benefit justify the cost; and

(d) are there any impacts, benign or detrimental, on other points on either System and stakeholders (terminal operators, Shippers, other TSOs etc).

Appendix 7 - Measurement

1 **Measurement Equipment**

The Measurement Provisions shall be as set out in this ~~Part 2.~~Appendix 7. The provisions of this ~~Part 2~~Appendix 7 as to the measurement of flow (and determination of volume and energy) and the determination of gas quality, including Gross Calorific Value of gas, delivered to or from the NGG System shall apply at the CSO Facilities (and at the Anna Paulowna Blending Site in the case of Hydrogen Sulphide or Total Sulphur). For the avoidance of doubt measurement at the CSO Facilities at the Anna Paulowna Blending Site shall apply at the Transfer Point.

On a Day on which physical direction of flow changes, the Measurement Provisions will be applied to determine a Reverse Flow and Forward Flow value for the End of Day Energy Quantity and Expected Daily Energy Quantity.

2 Installation, Commissioning, Operation and Maintenance of the Measurement Equipment

2.1 This ~~Part 2~~Appendix 7 specifies the metering, sampling, analysis and other equipment (the **Measurement Equipment**) at the CSO Facilities (and at the Anna Paulowna Blending Site in the case of Hydrogen Sulphide or Total Sulphur). The Measurement Equipment shall be installed and maintained to meet the requirements of the Gas (Meters) Regulations 1983, the Regulations, the Gas Act 1986 and the Gas (Calculation of Thermal Energy) Regulations 1996 (as appropriate).

2.2 General Requirements

(a) The Measurement Equipment must comply with standards that allow for the determination of the gas quality parameters as stated within the Gas Entry Conditions and in Part 4 of Appendix 2;

(b) The Measurement Equipment must also determine the volume and energy of all gas transferred between the NGG System and the CSO Facilities under the relevant contractual and regulatory obligations, where applicable. The requirements for these determinations that must be met or exceeded are set out within these Measurement Provisions;

(c) The Measurement Equipment shall be validated prior to any gas flow being allowed to or from the NGG System.

2.3 Gas Quality

(a) The CSO shall install, commission, operate and maintain equipment to determine the characteristics defined in the Gas Entry Conditions, and and in Part 4 of Appendix 2, of any gas that is passed from the CSO Facilities to the NGG System and from the NGG System to the CSO Facilities;

(b) The Parties agree that, notwithstanding paragraph ~~2.10,~~2.10, the equipment referred to in this paragraph 2.3 shall constitute the sole equipment for the measurement of gas quality for the purposes of this Agreement. This equipment shall, subject to

continuing and satisfactory maintenance and calibration by the CSO acting as a Reasonable and Prudent Operator, be accepted by both Parties as proving accurate and reliable measurements;

(c) Either Party may request a validation of the gas quality measurement equipment in which event paragraph 2.10 shall apply except that such validation shall be undertaken with twenty-four (24) hours of such request and both Parties shall be entitled to witness the validation. Both Parties accept that it may not be possible to give adequate advance notification of the timing of such validation, but the Party arranging the validation will use reasonable endeavours to ensure that the other Party is able to witness the validation. Until such time as validation is complete the gas quality measurement equipment shall be considered to be operating in a true and accurate manner;

(d) Such equipment shall meet the following criteria:

(i) All measurement biases shall as far as is practicable be eliminated or compensated for;

(ii) The uncertainty of measurement shall be such that the risk of the CSO and National Grid Gas flowing gas that they are both unaware is out with Schedule 3 of the Regulations is minimised. The uncertainties shall be better than those in the specified ranges;

(iii) The sampling system used to obtain the sample of gas for quality measurements shall ensure that the sample is representative of the gas passed between the NGG System and the CSO Facilities and that no change to the gas composition occurs between the sample point and the analytical instrument; and

(iv) Measurements and validation of equipment to make such measurement shall, where feasible, be traceable to national or international standards.

2.4 Energy and Volume

The CSO shall install, commission, operate and maintain flow measurement equipment to determine instantaneous and integrated volume and energy flows into and out of the CSO Facilities such that:

(a) All volume and energy flows to and from the NGG System shall comply with this paragraph;

(b) All volumes shall be corrected to zero degrees Celsius (0°C) and Normal Pressure conditions, and reported as Normal Cubic Metres of Natural Gas;

(c) The measurement of volume shall be without bias and with an uncertainty of better than plus or minus 1.0% of reading over the specified flow range; and

(d) The uncertainty of the energy flow must be better than ±1.1% of reading over the specified flow range.

2.5 Volume and Energy Calculation

(a) Volume flowrate shall be calculated in accordance with the appropriate standard using a dedicated flow computer that shall accept all signals necessary for the calculation of the total station volume and energy flowrate.

(b) The live input signals from each ultrasonic metering stream shall include but not be limited to:

(i) ultrasonic meter pulses (or ultrasonic meter parameters via serial link);

(ii) pressure transmitter;

(iii) temperature transmitter;

(iv) line density (if a chromatograph is not installed);

(v) relative density (if a chromatograph is not installed); and

(vi) gas composition (if a chromatograph is installed).

(c) The flow computer shall accept the results of a calibration carried out at a suitably accredited facility to minimise the error of measurement. For turbine and ultrasonic meter calibrations, the number of calibration points that can be entered shall not be less than five.

2.6 Volume Measurement

(a) The flow Measurement Equipment shall be designed, built and installed to BS EN 1776. Further guidance is given in the Institute of Gas Engineers' ~~reports IGE/GM/1 and~~report IGE/GM/4. In addition, the following standards/guidelines shall also apply:

(i) For ultrasonic metering systems, BS 7965, AGA 9 or such standards/guidelines as may be agreed by National Grid Gas "between the parties"; and

(ii) For any other metering system, such standards/guidelines as may be agreed between the Parties.

(b) The uncertainty of the Measurement Equipments must be assessed in accordance with ISO5168 and the relevant parts of ISO5167, ISO9951 and BS 7965 as may be applicable (or such other standards as may be agreed between the Parties).

(c) The calculation of density for the purpose of calculating volume flow and for correction to standard conditions shall be such that:

(i) All densities shall be determined as kilograms per Normal Cubic Metre (kg/NCM);

(ii) The line density shall be calculated from a gas composition obtained via a gas chromatograph. The calculation of line density will be in accordance with the latest version of AGA8 (detailed Characterisation) using a live pressure and temperature; and

(iii) The reference density shall be calculated from gas composition obtained via a gas chromatograph. The calculation of reference density will be in

accordance with the latest version of the ISO 6976 using Normal Pressure and zero degrees Celsius (0°C).

(d) The measurement of temperature for the purpose of calculating volume flow and for correction to standard conditions shall be such that:

(i) Temperatures shall be determined as degrees Celsius (°C); and

(ii) The requirements of the relevant parts of ISO5167, ISO9951 and BS 7965 as may be applicable (or such other standards as may be agreed between the Parties) are met.

(e) The measurement of pressure for the purpose of calculating volume flow and for correction to standard conditions shall be such that:

(i) Pressure shall be determined as bar absolute (Pgauge + Pbaro); and

(ii) The requirements of the relevant parts of ISO5167, ISO9951 and BS 7965 as may be applicable (or such other standards as may be agreed between the Parties) are met.

2.7 Gross Calorific Value

(a) The Gross Calorific Value of the gas offtaken from or delivered to the National Grid System at the CSP shall be determined by the gas analysis equipment. The CSO shall install, commission, operate and maintain gas analysis equipment that operates by chromatography such that:

(i) All Gross Calorific Values shall be corrected to twenty-five degrees Celsius (25°C) and Normal Pressure and reported as Megajoules per Normal Cubic Metre; and

(ii) The equipment shall read without bias and the uncertainty of the Gross Calorific Value must be better than plus or minus 0.1MJ/NCM over the specified Gross Calorific Value range. The determination of uncertainty shall be traceable to national or international standards as appropriate.

(b) The design and operation of the Measurement Equipment shall follow all relevant national or international standards, specifically:

(i) Where the Gross Calorific Value is determined by analysis of the gas composition, it shall typically be determined according to ISO 6976 (1995) or better; and

(ii) Where an on-line analytical system is used, its performance shall normally be evaluated according to ISO 10723 (1995) or better.

(c) National Grid Gas may evaluate all instruments used in the determination of the Gross Calorific Value and witness the calibrations or perform tests on the apparatus.

2.8 Permitted Ranges

(a) The range of measurement (the **Permitted Range**) and the uncertainty of parameters determined by the Measurement Equipment shall be better than the values defined in

the table below, and the frequency with which measurements are taken shall be not less than that specified in the table below:

Characteristic	Unit	Permitted Range	Uncertainty	Frequency of Measurement
Volume Flow Rate	MNCM/day	0 – 60	±1% of flow	15 sec
Energy Flow Rate	MMJ/day	0 – 2600	±1.1% of flow	15 sec
Gas Pressure	barg	0 – 85	±0.5 barg	15 sec
Gas Temperature	°C	-10 – +40	±1 °C	15 sec
Hydrocarbon Dewpoint	°C at27 barg	-30 – +10	±1 °C	20 min
Water Dewpoint	°C at line pressure	-60 – +20	±1 °C	20 min
Hydrogen	Mole %	0 – 1.5	±0.01	15 min
Oxygen	Mole %	0 – 0.0015	±0.0001 mol%	15 min
Hydrogen Sulphide and COS	ppm	0 – 5	±10%	4 min
Total Sulphur	Mg/NCM	0 – 100	±10%	4 min#
Incomplete Combustion Factor		-3 – +4	±0.02	15 min
Soot Index		0 – 1	±0.02	15 min
Inert Gases (including Carbon Dioxide and Nitrogen)	Mole%	0 – 10	±0.1 mol%	15 min
Nitrogen	Mole%	0 – 10	0.1 mol %	15 min
Carbon Dioxide	Mole%	0 – 5	0.1 mol %	15 min
Gross Calorific Value	MJ/NCM	38 – 49	±0.1 MJ/NCM	15 min
Relative Density		0.5 – 0.8	±0.01	15 min
Wobbe	MJ/NCM	48 – 58	±0.15 MJ/NCM	15 min

(b) For the avoidance of doubt, the maximum ~~hourly~~daily flow rate set out in the table above is quoted in respect of volume, as Normal Cubic Metres of gas and, in respect of energy, in Megajoules, both as defined in this Agreement. Such rate does not constitute for the purposes of the Network Code or otherwise an indication of the available capacity in respect of the System Entry Point or System Exit Point.

(c) The values in paragraph (a) are (where relevant) expressed on the basis of the reference temperature applying from ~~28 October 2015 and prior to that date such values shall be the values (if different) specified in this Agreement prior to its amendment and restatement as of [ ] 2015.~~ the 'Normal Reference' Effective Date.

2.9 Communication Interface

(a) Communications are required for two purposes; operational monitoring and control and measurement validation.

(b) The CSO shall install, commission, operate and maintain communication equipment to provide signals to National Grid Gas of type, quality, quantity and frequency to be agreed between National Grid Gas and the CSO. The requirement shall include:

Characteristic	Unit	Permitted Range	Transmittal mode	Frequency of Telecomms
Instantaneous standard volume flow rate (Forward)	MNCM/day	0 – 60	Serial Analogue	Less than 10 secs
Instantaneous energy flow rate (Forward)	MMJ/day	0 – 2600	Serial Analogue	Less than 10 secs
Instantaneous standard volume flow rate (Reverse)	MNCM/day	0 – 60	Serial Analogue	Less than 10 secs
Instantaneous energy flow rate (Reverse)	MMJ/day	0 – 2600	Serial Analogue	Less than 10 secs
Integrated standard volume flow (Forward)	KNCM	0 – 999999	Serial Counter	Less than 10 secs
Integrated energy flow (Forward)	GJ	0 – 999999	Serial Counter	Less than 10 secs
Integrated standard volume flow (Reverse)	KNCM	0 – 999999	Serial Counter	Less than 10 secs
Integrated energy flow (Reverse)	GJ	0 – 999999	Serial Counter	Less than 10 secs
Forward Flow			Serial Counter	Less than 10 secs
Reverse Flow			Serial Counter	Less than 10 secs
Gas Pressure	barg	0 – 85	Serial Analogue	Less than 10 secs
Gas Temperature	°C	-10 – 40	Serial Analogue	Less than 10 secs
Hydrocarbon Dewpoint	°C at 27 barg	-30 – 10	Serial Analogue	Less than 10 secs
Water Dewpoint	°C at line pressure	-60 – +20	Serial Analogue	Less than 10 secs
Oxygen	Mole %	0 -0.0015	Serial Analogue	Less than 10 secs
Hydrogen	Mole%	0 – 1.5	Serial Analogue	Less than 10 secs
Hydrogen Sulphide	ppm	0 – 5	Serial Analogue	Less than 10 secs
Total Sulphur	mg/NCM	0 – 100	Serial Analogue	Less than 10 secs

Incomplete Combustion factor		-3 - +2	Serial Analogue	Less than 10 secs
Soot Index		0 – 1	Serial Analogue	Less than 10 secs
Inert Gases (including Carbon Dioxide and Nitrogen)	Mole%	0 – 10	Serial Analogue	Less than 10 secs
Nitrogen	Mole%	0 – 10	Serial Analogue	Less than 10 secs
Carbon Dioxide	Mole%	0 – 5	Serial Analogue	Less than 10 secs
Gross Calorific Value	MJ/NCM	38 – 49	Serial Analogue	Less than 10 secs
Relative Density		0.5 – 0.8	Serial Analogue	Less than 10 secs
Wobbe	MJ/NCM	48 – 58	Serial Analogue	Less than 10 secs
Flow measurement fault alarm			Serial Digital	Less than 10 secs
GS(M)R compliance alarm			Serial Digital	Less than 10 secs
Gas quality measurement fault alarm (NGG System 1)			Serial Digital	Less than 10 secs
Comms link Netherlands Shell Route one health Gas quality measurement comms fault			Serial Digital	Less than 10 secs
Comms link Shell – Bacton Route one Health			Serial Signal	Less than 10 secs
Comms link Shell – Bacton Route two Healthy			Serial Signal	Less than 10 secs
BBL Export Valve XZV 27320	Open Position		Serial Digital	Less than 10 secs
BBL Export Valve XZV 27320	Closed Position		Serial Digital	Less than 10 secs
Filter Separator S- 2101	Differential Pressure	0 – 15 Barg Alarm @ 1.0 Barg rising	Serial Analogue	Less than 10 secs
Filter Separator S- 2102	Differential Pressure	0 – 15 Barg Alarm @ 1.0 Barg rising	Serial Analogue	Less than 10 secs

Filter Separator S- 2103	Differential Pressure	0 – 15 Barg Alarm @1.0 Barg rising	Serial Analogue	Less than 10 secs
Filter Separator S2104	Differential Pressure	0 – 15 Barg Alarm @1.0 Barg Rising	Serial Analogue	Less than 10 secs

~~The values in this paragraph are (where relevant) expressed on the basis of the reference temperature applying from 28 October 2015 and prior to that date such values shall be the values (if different) specified in this Agreement prior to its amendment and restatement as of [ ] 2015.~~

(c) National Grid shall install, commission, operate and maintain communication equipment to provide signals to the CSO of type, quantity and frequency to be agreed between National Grid and the CSO. The requirement shall include:

Characteristic	Unit	Transmittal mode
National Grid Inlet Valve	Open Position	Serial Digital
National Grid Inlet Valve	Closed Position	Serial Digital

(d) The flow measurement alarm shall indicate the presence of a fault on any equipment used to provide National Grid Gas with the instantaneous flow rate or integrated standard volume flow signals as defined above. The gas quality measurement fault alarm shall indicate the presence of a fault on any of the equipment used to provide National Grid Gas with measurements of gas quality parameters listed in the table above. The gas quality measurement communications fault shall indicate that there is a fault on the datalink(s) providing the signals listed above to National Grid Gas. ~~The~~For Forward Flow, the GS(M)R compliance alarm shall indicate that one or more of the gas quality parameters has been measured as being outside of the values described in the Regulations, Schedule 3 Part 1; for the purposes of hydrocarbon dewpoint and water dewpoint, these limits should be interpreted as those described in Appendix 1, Part ~~1, paragraph~~2, paragraphs 2.3(e) and 2.3(f).

(e) The signals provided pursuant to this paragraph 2.9 shall be provided as RS232 MODBUS as agreed by both Parties.

2.10 Validation

(a) The Measurement Equipment shall be validated prior to any gas flow being allowed to or from the NGG System.

(b) The procedures for the validation and subsequent revalidation shall be agreed between both Parties.

(c) Either Party may request that the Measurement Equipment be validated at any time in which case any such validation shall be carried out as soon as reasonably practicable. Subject to paragraph 2.10 (d), the costs and expense of such validation, and any adjustment or replacement of the components of the Measurement Equipment made as a result of any validation made pursuant to this paragraph 2.10(c) shall, if the

Measurement Equipment is found to read without discernable bias and within the Permitted Range, be paid by the Party requesting the validation and in any other case by the operator of the relevant part of the Measurement Equipment.

(d) Either Party may request that the Measurement Equipment be validated if the previous validation took place more than one (1) month previously, and any validation pursuant to this paragraph 2.10 (d) shall be carried out as soon as reasonably practicable. The operator of the relevant part of the Measurement Equipment shall bear the costs and expenses of such validation and any adjustment or replacement of the components of the Measurement Equipment made as a result thereof.

(e) Subject to paragraph 2.10(a)-(d) the operator of the relevant part of the Measurement Equipment may at its own expense undertake validation of the Measurement Equipment and may adjust or replace the components of the Measurement Equipment also at its own expense at any time.

(f) Immediately following validation as specified in paragraph 2.10(c), 2.10(d) or 2.10(e)~~,~~ the individual components of the Measurement Equipment shall be adjusted or replaced as necessary so that the Measurement Equipment reads without bias and within the Permitted Range. Each individual component of the Measurement Equipment shall read within its recommended tolerance. Where the Measurement Equipment is found when so validated to read with a discernable bias, regardless of whether it is within the Permitted Range, then:

(i) the Measurement Equipment shall be assumed to have read with bias during the latter half of the period since last validated and found to be without bias or, if later, since last adjusted to read without bias (except in the case where it is proved that the Measurement Equipment has begun to read outside the Permitted Range on some other date or in such other period as agreed by National Grid Gas and the CSO);

(ii) for the purposes of paragraphs 2.10 (c), (d) and (e) calculating the amount of allowance to be made to or the surcharge to be made on NGG System Users (except where paragraph 8 of Appendix 5 applies), the quantities read as delivered to or offtaken from the NGG System on each day during the period when the Measurement Equipment is assumed to have read with bias shall be adjusted by an amount as agreed by National Grid Gas corresponding to the amount by which the Measurement Equipment was found on validation to be in error.

(g) Immediately following validation as specified in paragraph 2.10(c), 2.10(d) or 2.10(e), the individual components of the Measurement Equipment shall be adjusted or replaced as necessary so that the Measurement Equipment reads without bias and within the Permitted Range. Each individual component of the Measurement Equipment shall read within its recommended tolerance. Where the Measurement Equipment is found when so validated to read without bias and outside the Permitted Range then, for the purposes of calculating the amount of allowance to be made to or the surcharge to be made on NGG System Users the quantities read as delivered to or offtaken from the NGG System during the period when the Measurement Equipment is assumed to have read outside the Permitted Range shall be accepted without adjustment.

(h) Any validation pursuant to this paragraph 2.10 shall be conducted by the operator of the relevant part of the Measurement Equipment, and the operator of the relevant part of the Measurement Equipment shall give reasonable advance notice of such validation to the other Party, and such other Party shall be entitled to be present. The operator of the relevant part of the Measurement Equipment shall provide a validation report to the other Party within fourteen (14) Days of any validation stating the results of such validation, which may be provided to National Grid Gas through its NGage meter validation application.

(i) The results of any validation by the operator of the relevant part of the Measurement Equipment shall be binding on the Parties (and on all NGG Shippers and the CSO Shippers) unless National Grid Gas within fourteen (14) Days after receiving the validation report specified in paragraph 2.10(h), gives notice to the operator of the relevant part of the Measurement Equipment that it disputes the accuracy of such validation. The CSO or National Grid Gas shall not be entitled to dispute the accuracy of such validation solely on the grounds that it did not attend such validation.

(j) At the request of either Party, the Parties shall meet and discuss and endeavour to settle any dispute or failure to agree arising from the application of the provisions of this paragraph 2.10 and if within thirty (30) Days after such request they shall have been unable to agree the matter may be referred to an expert for determination (at the request of either Party) in accordance with the provisions set out in Clause 16.

Inspection Rights

(k) Either Party shall have the right, upon giving reasonable notice to the operator of the relevant part of the Measurement Equipment to inspect such part of the Measurement Equipment and the charts and other measurements or test data of the operator of the relevant part of the Measurement Equipment but the reading calibration and adjustment of such and the changing of any charts shall be carried out only by the operator of the relevant part of the Measurement Equipment who shall preserve all original test data, charts and other similar records for a period of three (3) years and shall, at the expense of the other Party, make a copy thereof available to the other Party upon request.

(l) The operator of the relevant part of the Measurement Equipment shall maintain auditable logs that shall include but not be limited to:

(i) System alarms contributing to flow Measurement Equipment fault alarm and to any equipment within the Measurement Equipment;

(ii) Configuration of flow computers and programmable devices within Measurement Equipment; and

(iii) Tests or validations of the Measurement Equipment.

2.11 Measurement Failure

2.11.1 If during any part of any Day the Measurement Equipment Meters are not adequately operational, the quantity and quality of gas delivered to or offtaken from the NGG System at the CSP during such time will be deemed to be such quantity and quality as may be agreed between the CSO and National Grid Gas, in both cases acting reasonably and using

alternative measurements for the derivation of such quantity and quality of gas where possible.

2.11.2 For Measurement Equipment Meter failure, recourse to the relevant volume, meter pressure, meter temperature and calorific value should be made to manually determine flow through the meter.

(a) In the event of failure of the Measurement Equipment for measuring quality of gas:

(i) Either:

(A) spot samples shall be taken and analysed at any approved laboratory with sufficient frequency to monitor properly changes in operating conditions. The method and equipment used and installed for taking samples shall be subject to reasonable agreement by the Parties (such agreement not to be unreasonably withheld or delayed); or

(B) where there is no laboratory at the CSO Facilities then National Grid Gas shall use reasonable endeavours to determine gas quality at the System Entry Point from other equipment on the NGG System, and (for Forward Flow) the CSO shall take such steps as would be expected of a Reasonable and Prudent Operator to ensure that all gas delivered at the SEP continues to comply with the limits set out in the Network Entry Provisions; and

(ii) the operator of the relevant part of the Measurement Equipment shall rectify such failure as soon as reasonably practicable. Rectification shall include, inter alia, recalibration within twenty-four (24) hours of the operator becoming aware of the failure. Any further remedial works required as a consequence of such failure shall be notified to the other operator no later than the next Business Day.

(b) The intention is to exchange information between the Parties such that no significant energy measurement errors are allowed to accumulate and an agreed end of day number is always achieved. As such:

(i) whenever a significant energy measurement error occurs, other than as included in paragraph 2.10 it will be documented in a mis-measurement report and the reconciliation of the metering errors will be in accordance with reconciliation procedures that will have been agreed with National Grid Gas except where paragraph 8 of Appendix 5 applies;

(ii) where details of the error are known, to include but not be limited to the start and end dates and/or error quantity (to include fixed or variable), the error shall be calculated from the available data; and

(iii) where the full details of the error are not known then the normal principle used for reconciliation is that a correction for half of the measurement error shall be applied to the volume/energy for the entire period between the correction to the measurement error and the previous validation check or point at which it can be demonstrated that there was no measurement error.

(c) Reconciliation will be calculated using the end of day data previously recorded on UK-Link.

(d) Where the error cannot be agreed the matter may be referred to an expert for determination (at the request of either Party) in accordance with Clause 17.

2.12 Modifications

The operator of the relevant part of the Measurement Equipment shall provide not less than three (3) months prior written notice to the other Party of any intended modifications to that part of the Measurement Equipment which may affect the measurement of the flow or quality of gas at the CSP ~~or the System Entry Point~~. The other Party shall accept the Measurement Equipment (as modified) for flow of gas once the Measurement Equipment (as amended) has been validated (as appropriate).

~~Part 3 – CSO Facilities Owners~~

~~E.ON Ruhrgas BBL B.V.~~

~~Fluxys BBL B.V.~~

~~Gasunie BBL B.V.~~

~~together the partners of "BBL Company V.O.F."~~

Part 4 – Connection Facilities

1 Connection Facilities

1.1 The CSO Facilities

The CSO Facilities is shown schematically in the drawing attached as Part 4 to Appendix 1. The upstream boundary of the CSO Facilities is the upstream HIPPS valve as denoted in Part 4 to Appendix 1. The downstream boundary of the CSO Facilities is the Transfer Point, being the isolation joint as denoted in Part 4 to Appendix 1.

1.2 The National Grid Gas Facility

The National Grid Gas Facility is shown schematically in the drawing attached as Part 4 to Appendix 1. The upstream boundary of the National Grid Gas Facility is the isolation joint as shown on Part 4 to Appendix 1. The downstream boundary of the National Grid Gas Facility are the points at which the outgoing feeders (numbers 2,3,4,5 and 27) and the pipeline to the Great Yarmouth Power Station pass underneath the National Grid Gas Facility fence as shown on Part 4 to Appendix 1 and the points at which the pipes to the Bacton distribution network offtake connect to the feeders within the National Grid Gas Facility compound.

1.3 The Transfer Point

The Transfer Point is the downstream boundary of the CSO Facilities described in paragraph 1.1 above and the upstream boundary of the National Grid Gas Facility as described in paragraph 1.2 above.

~~Appendix 2 – Network Exit Provisions~~

~~1 Scope~~

~~1.1 This Appendix 2 sets out provisions applying in respect of the CSEP.~~

~~2 Notification of Quantities at CSEP and SEP~~

~~2.1 The CSO shall notify to National Grid Gas (in accordance with paragraph 2.5 of Appendix 3) each Day the net aggregate quantity of gas measured (in accordance with Part 2 of Appendix 1 as flowing at the SEP.~~

~~3 Exit flows~~

~~3.1 The CSO shall secure that there is no instantaneous physical flow of gas from the NGG System to the CSO System at the CSP.~~

~~3.2 Without prejudice to paragraph 3.1, if such a flow of gas occurs, the CSO shall secure that as soon as possible thereafter (and in any event within the same Day) such flow is offset by an equal or greater flow of gas from the CSO System to the NGG System at the CSP.~~

~~3.3 The Parties agree that, before either of them allows NGG Shippers or (as the case may be) CSO Shippers to nominate or be allocated net physical flows of gas from the NGG System to the CSO System at the CSP:~~

~~(a) this Agreement must be amended to provide for appropriate Network Exit Provisions (including provisions as to flow rates, flow rate changes, ramp rates, and notifications thereof); and~~

~~(b) an engineering assessment/design study must have been carried out and paid for in accordance with the requirements of the prevailing National Grid NTS statement of principles and methods to be used to determine charges for National Transmission System connection services (as may be modified or amended or such successor document) and any identified engineering modifications must have been completed.~~

Appendix 8~~Appendix 3 –~~ - Local Operating Procedures

1 Introduction

1.1 This Appendix ~~3~~8 sets out Local Operating Procedures between the CSO and National Grid Gas. It provides for the exchange of information between the CSO and National Grid Gas so that quantities of Natural Gas are delivered and offtaken at the CSP in accordance with the rights and obligations of the Parties as described in their relevant agreements with NGG Shippers and CSO Shippers respectively~~.~~.

1.2 Certain provisions of this Appendix 8 apply only in relation to the SEP (for Forward Flow) as equivalent provisions are contained in Appendix 2 in respect of the CSEP (for Reverse Flow).

1.3 Unless otherwise provided, the provisions of this Appendix 8 apply in respect of both the SEP (for Forward Flow) and the CSEP (for Reverse Flow).

2 Routine Notifications

2.1 Notices

(a) Notices given by the CSO to National Grid Gas in accordance with these Local Operating Procedures will be made to the National Grid Gas Shift Representative via facsimile (or as otherwise agreed by both parties).

(b) Notices given by National Grid Gas to the CSO in accordance with these Local Operating Procedures will be made to the CSO Representative using facsimile (or as otherwise agreed by both parties).

(c) The telephone, facsimile numbers and the (e-mail) addresses of the Parties for the exchange of information as set out in these Local Operating Procedures are set out in Attachment D to Appendix ~~3~~8. In the event of either telephone number, facsimile number or other details being changed, the party whose number or details is subject to such change shall notify the other party as soon as it is reasonably practicable.

2.2 Daily Notifications of Natural Gas Expected Flow Rate, Calorific Value and expected End of Day Volumetric Quantity

(a) The CSO will notify National Grid Gas at the earliest practicable opportunity but no later than 19:00 hours UTC (or 18:00 hours UTC during day light saving periods) on Gas Day D-1 of the Expected Flow Rate, expected End of Day Volumetric Quantity and its good faith estimate of the Calorific Value of the Natural Gas that is estimated will be delivered on the Gas Day D.

(b) The notification will be in the form of a completed Daily Flow Notification (DFN) to be notified by facsimile or other agreed means by the CSO to National Grid Gas.

(c) The DFN shall be in a form substantially similar to the pro forma set out in Attachment A to Appendix ~~3~~8.

Paragraph 2.2 applies only to the SEP.

2.3 Re-notification of Natural Gas Expected Flow Rate, Calorific Value and expected End of Day Volumetric Quantity

(a) On Gas Day D-1

(i) Before Gas Day D commences the CSO will, as soon as is reasonably practicable following the time at which it is made aware of any changes requiring an update to the DFN, notify the National Grid Gas Shift Representative of any such changes that exceed the relevant Tolerances. Any revision to the previous DFN will be provided in the form of additional information on the previous notice. Notification of such change will be made by facsimile or other agreed means.

(ii) The revised Expected Flow Rate on the DFN will indicate when the change is likely to take effect and will show the expected End of Day Volumetric Quantity that is estimated will be delivered on that Gas Day with an estimate of the Gross Calorific Value of the Natural Gas that is estimated will be delivered on that Gas Day.

(b) Within Gas Day D

(i) Within Gas Day D the CSO will, subject to the relevant Tolerances, notify National Grid Gas of any changes to the expected End of Day Volumetric Quantity and/or Expected Flow Rate and/or the estimated Gross Calorific Value of such Natural Gas, as soon as is reasonably practicable following the time at which it is made aware of such changes.

(ii) Notification will be made by facsimile or other agreed means. The revised completed DFN will indicate the revised Expected Flow Rate (showing when the change is likely to take effect), the revised expected End of Day Volumetric Quantity and a good faith estimate of the Gross Calorific Value of the Natural Gas that is estimated will be delivered for the remainder of Gas Day D.

(iii) Where the change is not due to a renomination, the CSO shall indicate this fact on the DFN. The CSO may at its sole discretion provide additional information related to the reason for the change.

(iv) Notified variations to the Expected Flow Rate will be effective from a specified Exact Hour. However, the Actual Flow Rate may change within fifteen (15) minutes before or after the Exact Hour.

(v) The CSO shall use all reasonable endeavours to secure that (after allowing for the time required to implement an increase or decrease in the rate of delivery):

(A) the rate at which Natural Gas is delivered to the NGG System at the System Entry Point changes only with effect from the start of the Day and (within the Day) with effect from the time specified for such change in the prevailing DFN; and

(B) Natural Gas is delivered to the NGG System at the System Entry Point at the prevailing Expected Flow Rate.

Paragraph 2.3 applies only to the SEP.

Confirmation/Notification of Natural Gas Quantities Delivered at the Connected Systems Point

2.4 The National Grid Gas Shift Representative will contact the CSO Representative by telephone from time to time as reasonably required with a view to avoiding any disparities in the Parties' measurement of the End of Day Energy Quantity, Calorific Value and volume of Natural Gas from the NGG System delivered at the ~~Connection Point~~CSP during the Gas Day.

2.5 Not later than 09:00 hours UTC (08:00 hours UTC during day light saving periods) on each Gas Day D+1 the CSO will publish on the National Grid Overview the following information:

(a) the End of Day Volume (MNCM) and the End of Day Energy Quantity (kWh) ~~of~~on Gas Day D;

(b) the total volume (in MNCM) of Natural Gas and total amount of energy (in kWh) deemed to have been delivered by CSO Shippers to the NGG System at the CSP on Gas Day D;

(c) ~~(b)~~ the total volume (in MNCM) of Natural Gas ~~(MNCM)~~ and total amount of energy (in kWh) deemed to have been offtaken by CSO Shippers from the NGG System at the CSP on Gas Day D;

(d) ~~(c)~~ the average Gross Calorific Value (MJ/NCM) for Natural Gas ~~deemed to have been~~ delivered ~~and~~to the NGGS System or offtaken ~~by CSO Shippers~~from the NGG System at the CSP on Gas Day D,

(together, the **Data Items**).

2.6 The publication shall be substantially in the form set out in Attachment E.

2.7 National Grid will extract the Data Items in respect of Gas Day D by not later than 10:00 hours UTC (09:00 hours UTC during daylight saving time periods) on D+1 Gas Day from the National Grid Overview. National Grid will use reasonable endeavours to notify the CSO where:

(a) there is a difference between the Measured Quantity and the Data Items published on the National Grid Overview;

(b) the Data Items in respect of Gas Day D are not available on the National Grid Overview; or

(c) National Grid has been unable to access the National Grid Overview.

2.8 The CSO will publish any revision to the Data Items in respect of Gas Day D on the National Grid Overview by no later than:

(a) 04:59 hours UTC (03:59 hours UTC during daylight saving time periods) on Gas Day D+4 in respect of Data Items detailed in paragraphs 2.5(b) and (c);

(b) 24:00 hours UTC (23:00 hours UTC during daylight saving time periods) on the 14th Business Day following the end of the month in which Gas Day D occurs in respect of the Data Items detailed in paragraph 2.5(a);

and such revised Data Items shall be extracted by National Grid by no later than 10:00 hours UTC (09:00 hours UTC during daylight saving time periods) on the next following Day.

2.9 In the event that the CSO does not make the Data Items available to National Grid Gas in accordance with paragraph 2.8 including (but not limited to) in circumstances where Data Items for Gas Day D are not available on the National Grid Overview, or where National Grid is unable to access the National Grid Overview and/or BBL Information Services Webpage then the provisions of Transportation Principle Document Section E1.9.4 of the Network Code shall apply.

3 Other Notifications/Communications

3.1 General Communication

(a) Subject to the Party's duty of confidentiality to any third party the CSO Representative and (except as provided in Appendix 2, Part 4, paragraph 3.2) the National Grid Gas Representative will at all times keep each other informed of all matters which have a significant effect on Natural Gas flow, pressure or quality at the Transfer Point.

(b) Upon an unforeseen change in the Natural Gas flow, pressure or quality, the CSO Representative or the National Grid Gas Representative will inform each other of the nature and estimated extent of the change.

3.2 Planned Flow Changes due to Maintenance Procedures

(a) Pursuant to Clause 21, both Parties shall, in good faith, seek to coordinate their maintenance activities at [or near] the ~~System Entry Point~~CSP in order to minimise disruption to each other and with a view to minimising the impact on potential gas flows and capacity at the Connected Systems Point.

(b) Representatives of the CSO and National Grid Gas shall meet at least once per year and on other occasions as required to discuss their respective planned maintenance programmes, emergency shut down tests, pipeline operations and procedures associated with these activities to assist the integrity and safety of the CSO Facilities and the National Grid Gas Facility. In addition, representatives of the CSO and National Grid Gas shall meet at least once per year and on other occasions as required to discuss any new supplies and changes to existing supplies to assist the integrity and safety of the CSO Facilities and the National Grid Gas Facility. The two meetings referred to above may be held separately from each other or combined to form a single meeting, as the Parties may agree from time to time.

(c) If any need to deviate from a uniform flow profile as a result of planned maintenance is made known at such meetings it will be discussed and both Parties will make reasonable efforts to accommodate the requirements of the other and any other planned maintenance, by telephone one week before they are intended to take effect. The maintenance related flow profiles will subsequently be detailed on the Daily Flow Notification in accordance with paragraph 2~~.~~ or (as the case may be Offtake Profile Notification in accordance with Appendix 2 Part 3.

3.3 TFA

(a) If in National Grid Gas's reasonable opinion, the NGG System will be unable to accommodate any Expected Flow Rate or expected End of Day Volumetric Quantity as notified on the DFN, or any Actual Flow Rate, National Grid Gas may advise the CSO by means of a TFA facsimile, which will be in substantially the form set out in Attachment C. In so doing, National Grid Gas will advise the CSO as to the flow rates

and End of Day Volumetric Quantity that it anticipates the NGG System may be able to accommodate. National Grid Gas will provide the CSO with a reason for its TFA. The TFA will specify whether or not the relevant circumstances constitute an Exceptional Event affecting the NGG System. In the case where they do constitute an Exceptional Event, NGG will issue a further advice to the CSO when the Exceptional Event has ceased.

(b) If National Grid Gas believes that gas tendered for delivery at the System Entry Point is reasonably expected not to comply with the Gas Entry Conditions and appears to be imminently in breach of any statutory gas safety requirement (including without limitation, Schedule 3 of the Regulations), National Grid Gas may advise the CSO of the specification parameter that is reasonably expected to be in breach and request that the CSO take action to prevent a such a breach.

(c) If gas tendered for delivery at the System Entry Point does not comply with the Gas Entry Conditions, National Grid Gas may issue a TFA that advises of the specification parameter that is being breached and requesting a reduction in, or a cessation of, the flow of gas being tendered for delivery. The TFA facsimile will be substantially the form set out in Attachment B.

(d) If the gas tendered for delivery at the System Entry Point is brought back within the Gas Entry Conditions, then National Grid Gas will then advise that the TFA is removed and that the CSO may return to its expected flow rate. If, once the TFA has been lifted, the CSO requires to increase its expected gas flow rate in order to meet its notified Expected End of Day Volumetric Quantity, then the CSO shall resubmit its Expected Flow Rates in accordance with paragraph 2.3(b).

(e) If the gas tendered for delivery at the System Entry Point is not brought back within the Gas Entry Conditions within a reasonable timeframe then National Grid Gas may issue a further TFA requesting a further reduction in, or a cessation of, flow, or may isolate the CSO Facilities from the NGG System by closing the necessary valves at the National Grid Gas Facility.

(f) The CSO recognises and acknowledges that National Grid Gas issues a TFA to protect the NGG System either from contamination by gas outside the agreed specification or from over-pressurisation. Where National Grid Gas has issued a TFA to the CSO, the CSO shall reduce or cease flow (as the case may be) such that the flow from the CSO Facilities is less than or equal to the flow rate specified in the TFA. If the CSO fails to comply with the TFA in a timely manner, it may become necessary for National Grid Gas to isolate the flow from the CSO Facilities (by closing the necessary valves at the National Grid Gas Facility) to prevent over-pressurisation of the NGG System or to prevent gas outside the agreed specification entering the NGG System.

(g) Where National Grid Gas issues a TFA pursuant to this paragraph 3.3, the DFO shall resubmit its Expected Flow Rates in accordance with paragraph 2.3(b) based on the flow of gas specified in the TFA.

Paragraphs 3.3(a) to (g) apply only to the SEP.

(h) [*Include provision for notification of exit emergency as agreed.*]

3.4 Minimum Flows

In the event that the CSO's expected End of Day Volumetric Quantity at uniform rates is less than the Measurement Equipment (as defined in paragraph 2.1 of ~~Part 2 of~~ Appendix ~~1~~7) can reasonably tolerate, then the CSO will notify National Grid Gas as soon as is reasonably practicable and the Parties will co-operate in defining mutually acceptable flow rates.

3.5 Information Quality

If it becomes apparent over a period of time that the estimates of the changes do not reasonably reflect the actual changes, then the representatives will meet to discuss the relevant data with a view to improving the accuracy of such estimates in future. If reasonably requested by National Grid Gas, the CSO will use its reasonable endeavours to co-operate in the provision of additional information to National Grid Gas regarding DFN changes in any analysis of the balancing of the NGG System.

Similarly, if it becomes apparent over a period of time that the reasons provided by National Grid Gas on a TFA do not provide the CSO with sufficient detail in order to submit a revised ~~TFA~~DFN, then representatives will meet to discuss the relevant information with a view to providing reasons that do provide the CSO with sufficient detail.

Paragraph 3.5 applies only to the SEP.

3.6 Ramp Rates

In the event that either Party anticipates a significant change to the Actual Flow Rate then that Party will notify the other Party as soon as is reasonably practicable and the Parties will cooperate in defining mutually acceptable ramp rates.Paragraph 3.6 applies only to the SEP.

3.7 Unplanned Supply Reduction

Whenever any reduction to the Expected Flow Rate and/or expected End of Day Volumetric Quantity is due to any reason other than a normal planned flow rate change, the CSO will:

(a) where such reduction is less than 10 MNCM/D of Expected Flow Rate or 10 MNCM of the expected End of Day Volumetric Quantity, as soon as is reasonably practicable taking account of safety considerations, provide National Grid Gas with all the following information through an updated DFN:

(i) the revised Expected Flow Rate in MNCM/D and expected End of Day Volumetric Quantity in MNCM;

(ii) reason for the reduction in Expected Flow Rate and/or expected End of Day Volumetric Quantity (e.g. compressor trip, onshore process plant etc);

(iii) anticipated flow rates for the remainder of the Gas Day;

(iv) the forecast Maximum Available Terminal Capacity (expressed in MNCM/D), that the CSO Facilities could reasonably be expected to achieve having due regard to the expected availability of pipeline, plant and processing facilities, where "Maximum Available Terminal Capacity" shall be the forecast maximum hourly rate at which gas might subsequently be tendered for delivery at the CSO Facilities for entry to the NGG System. Such capability shall take account of known pipeline, plant and processing facility availability local to the CSO Facilities following the unplanned supply reduction.

The CSO shall provide National Grid Gas with updated DFNs as and when the situation changes.

An updated DFN under paragraph (a) or confirmation under paragraph (b) will specify whether or not the relevant circumstances constitute an Exceptional Event affecting the CSO System. In the case where they do constitute an Exceptional Event, the CSO will issue a further advice to NGG when the Exceptional Event has ceased.

Should two or more coincident unplanned supply reductions occur such that National Grid Gas considers the aggregate effect to exceed the threshold defined for paragraph (b) below, then National Grid Gas may request that the CSO follows the process for significant supply failures outlined in paragraph (b) below instead.

(b) Where such reduction is equal to or more than 10 MNCM/D of Expected Flow Rate or 10 MNCM of the expected End of Day Volumetric Quantity, as soon as is reasonably practicable due to safety considerations telephone the appropriate National Grid Gas Control Room to provide a verbal confirmation that a significant supply reduction has happened, including an initial view on the likely significance of the loss (magnitude and duration). This will be subsequently followed by the completion of an updated DFN as per the process in paragraph (a).

(c) National Grid Gas will assess the impact of the reduction against the conditions on the NGG System, and the availability of alternative gas sources to balance the NGG System. Where National Grid Gas believes the reduction warrants such action, it will inform the DECC Duty Officer providing details as requested in accordance with the "Upstream Oil and Gas Industry Crisis Management Briefing Pack".

(d) The CSO will provide to National Grid Gas regular updates on the status of the supply outage and amendments to the anticipated deliverability as may be reasonably available through the re-issue of DFNs and telephone communications. These updates will be targeted to be on an hourly basis subject to any safety considerations prevailing at the time. Any verbal update indicating different values to DFN information already communicated shall subsequently be confirmed through the re-issue of a DFN.

(e) In all cases and at all stages the CSO should undertake reasonable endeavours to provide National Grid Gas with their most realistic indication of potential outturn. National Grid Gas recognises that the very nature of unplanned supply losses means that data is uncertain but require realistic data to determine the most appropriate onshore response to manage the situation effectively and efficiently.

Paragraph 3.7 applies only to the SEP.

3.8 Notification of ~~Upstream~~ Maintenance on CSO side

(a) The CSO will, by 15th September each year, provide National Grid Gas with all available details of planned onshore and offshore maintenance activities for the following calendar year that, in the CSO's reasonable opinion, could impact on the [deliverability of gas to] the NGG System. Information should be provided for any onshore and offshore maintenance activity that may affect [the availability of gas for delivery to the NGG System].

(b) The following information should be provided in a form substantially the same as Attachment F:

(i) activity reference number;

(ii) the start and finish dates of the maintenance activity;

(iii) the anticipated [reduction in gas deliverability] (in MNCM/D) at the point at which the CSO Facilities is connected to the NGG System as a consequence of the maintenance activity;

(iv) details of the onshore and offshore maintenance activity;

(v) whether the details of the maintenance activity are provisional or confirmed;

(vi) contact details for a specific person/role within the CSO's organisation from whom National Grid Gas could request additional information if required.

(c) The completed planned maintenance proforma should be faxed or emailed to National Grid Gas who will confirm receipt of the maintenance information.

(d) If National Grid Gas has not received the maintenance information by the 15th September, then National Grid Gas will contact the CSO and request that this information be provided as soon as reasonably practicable.

(e) On a quarterly basis, no later than the 15th Day of each relevant month (December, March, June and September), the CSO will advise National Grid Gas of all changes to their scheduled planned maintenance programme as submitted to National Grid Gas pursuant to this paragraph ~~3.8~~0. Updated information shall be provided for any existing or new onshore and offshore maintenance activity that may affect the [deliverability of gas] at the CSO Facilities.

(f) This information, including a null response, if there have been no change from the previous submission, should be faxed or emailed to National Grid Gas using the proforma in Attachment F. National Grid Gas will confirm receipt of the update.

(g) If National Grid Gas has not received the maintenance information by the relevant date, then National Grid Gas will contact the CSO and request that this information be provided as soon as reasonably practicable.

(h) If the CSO becomes aware of any change to maintenance plans between the quarterly updates, then the CSO should provide National Grid Gas with an updated maintenance form as soon as reasonably practicable.

(i) In the last few months through to the maintenance activity actually being undertaken, the CSO shall give greater priority in informing National Grid Gas of any changes to previously communicated planned maintenance dates that subsequently occur.

3.9 Notification of ~~Downstream~~ Maintenance on NGG side

(a) National Grid Gas will, by 15th September each year, provide the CSO with all available details of planned onshore and offshore maintenance activities for the following calendar year that, in National Grid Gas's reasonable opinion, could impact on the deliverability of gas [to] the CSO System. Information should be provided for

any onshore and offshore maintenance activity that may affect the availability of gas for delivery [[to] the NGG System.

(b) The following information should be provided in a form substantially the same as Attachment G:

(i) activity reference number;

(ii) the start and finish dates of the maintenance activity;

(iii) the anticipated reduction in [gas deliverability] (in MNCM/D) at the point at which the CSO Facilities is connected to the NGG System as a consequence of the maintenance activity;

(iv) details of the onshore and offshore maintenance activity;

(v) whether the details of the maintenance activity are provisional or confirmed;

(vi) contact details for a specific person/role within National Grid Gas's organisation from whom the CSO could request additional information if required;

(c) The completed planned maintenance proforma should be faxed or emailed to the CSO who will confirm receipt of the maintenance information.

(d) If the CSO has not received the maintenance information by the 15th September, then the CSO will contact National Grid Gas and request that this information be provided as soon as reasonably practicable.

(e) On a quarterly basis, no later than the 15th Day of each relevant month (December, March, June and September), National Grid Gas will advise the CSO of all changes to their scheduled planned maintenance programme as submitted to the CSO pursuant to this paragraph 3.9(e). Updated information shall be provided for any existing or new onshore and offshore maintenance activity that may affect [the deliverability of gas] at the NGG Facilities.

(f) This information, including a null response, if there have been no change from the previous submission, should be faxed or emailed to the CSO using the proforma in Attachment G. The CSO will confirm receipt of the update.

(g) If the CSO has not received the maintenance information by the relevant date, then the CSO will contact National Grid Gas and request that this information be provided as soon as reasonably practicable.

(h) If National Grid Gas becomes aware of any change to maintenance plans between the quarterly updates, then National Grid Gas should provide the CSO with an updated maintenance form as soon as reasonably practicable.

4 Information related to the Local Security of the CSO Facilities and the NGG System

4.1 If there is a complete cessation of the flow of gas at the CSP from [or to] the CSO Facilities, National Grid Gas may shut the necessary valves to the National Grid Gas Facility to safeguard the NGG System. [When the CSO Facilities is able to resume flows the CSO

Representative will telephone the National Grid Gas Shift Representative and confirm by facsimile or other agreed means that the CSO Facilities is again capable of delivering the Expected Flow Rate.] Both Parties will then cooperate in returning to normal conditions as soon as practicable.

4.2 In the event of an Emergency Shut Down Condition on the NGG System, National Grid Gas will close the necessary valves at the National Grid Gas Facility and/or elsewhere on the NGG System. National Grid Gas will as soon as is practicable following such event inform the CSO Representatives of the reasons and the likely duration of the Emergency Shut Down Condition.

4.3 In the event of an emergency at the CSO Facilities requiring immediate cessation of supply, the CSO Representative will close the necessary valves at the CSO Facilities. The CSO will inform the National Grid Gas Shift Representative as soon as possible of the emergency, give the reasons therefore and, if possible, estimate the likely duration of the emergency.

4.4 It is acknowledged that emergency procedures are in place at both the CSO Facilities and the National Grid Gas Facility. In the event of an emergency at either facility, that could have an impact on the Natural Gas flows, this paragraph 4 provides for the appropriate communications to be made. Such communications will be made as soon as is reasonably practicable.

5 Emergencies

5.1 In the event of a Gas Deficit Emergency, National Grid Gas may require cooperation of the CSO during the management of such Gas Deficit Emergency.

6 Revision of Local Operating Procedures

6.1 The Parties agree to meet as requested by either Party to review and consider amendments to the Local Operating Procedures. Such meeting shall occur within one (1) calendar month of the request being made, unless otherwise agreed by the Parties acting reasonably. The Parties shall discuss and negotiate any such proposed amendments in good faith, and shall use reasonable endeavours to agree the extent of any such proposed amendments, prior to undertaking the change control process in accordance Clause 8. For the avoidance of doubt, the provisions of Clause 3.1 shall apply to any such amendment. Any agreed modification of and/or addition to this Local Operating Procedure, shall be implemented in accordance with Clause 8.11.

6.2 Either Party can, upon three (3) months prior notice, terminate this Local Operating Procedure. In such event the Parties shall agree upon a new Local Operating Procedure to take effect prior to such termination.

Attachment A to Appendix ~~3~~8 - Daily Flow Notification

GASUNIE DISPATCHING

GTS - BBL

DATE : TIME : HR S.NR :

FROM : GTS GRONINGEN

TO : NATIONAL GRID UK
COPY : SHELL BACTON

SUBJECT : DELIVERY FLOW NOTIFICATION

PERIOD :

HOURLY FLOW RATES IN UK TIME !

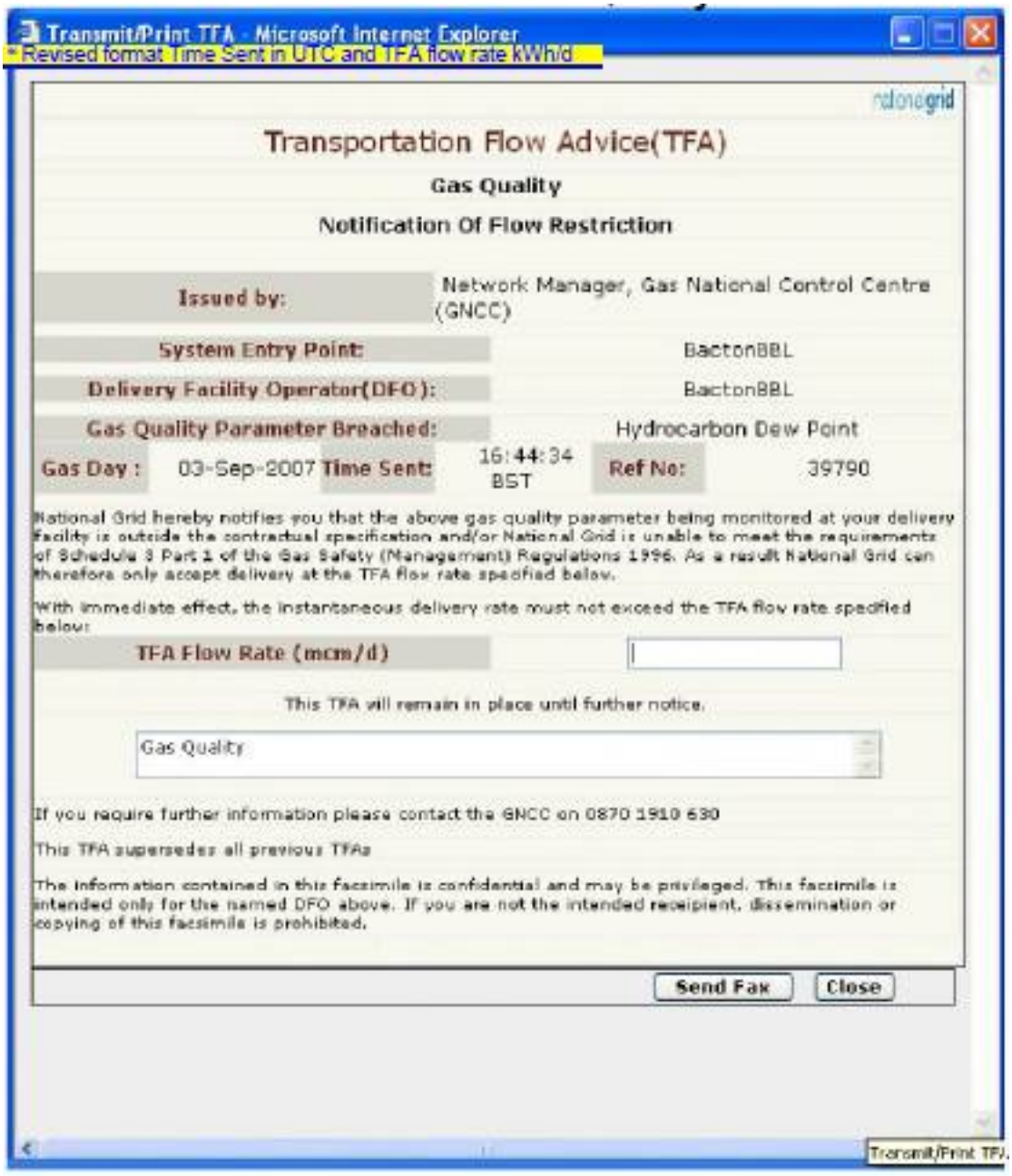
CV :

UK-TIME	KWH
05 - 06	
06 - 07	
07 - 08	
08 - 09	
09 - 10	
10 - 11	
11 - 12	
12 - 13	
13 - 14	
14 - 15	
15 - 16	
16 - 17	
17 - 18	
18 - 19	
19 - 20	
20 - 21	
21 - 22	
22 - 23	
23 - 00	
00 - 01	
01 - 02	
02 - 03	
03 - 04	
04 - 05	
TOTAL	

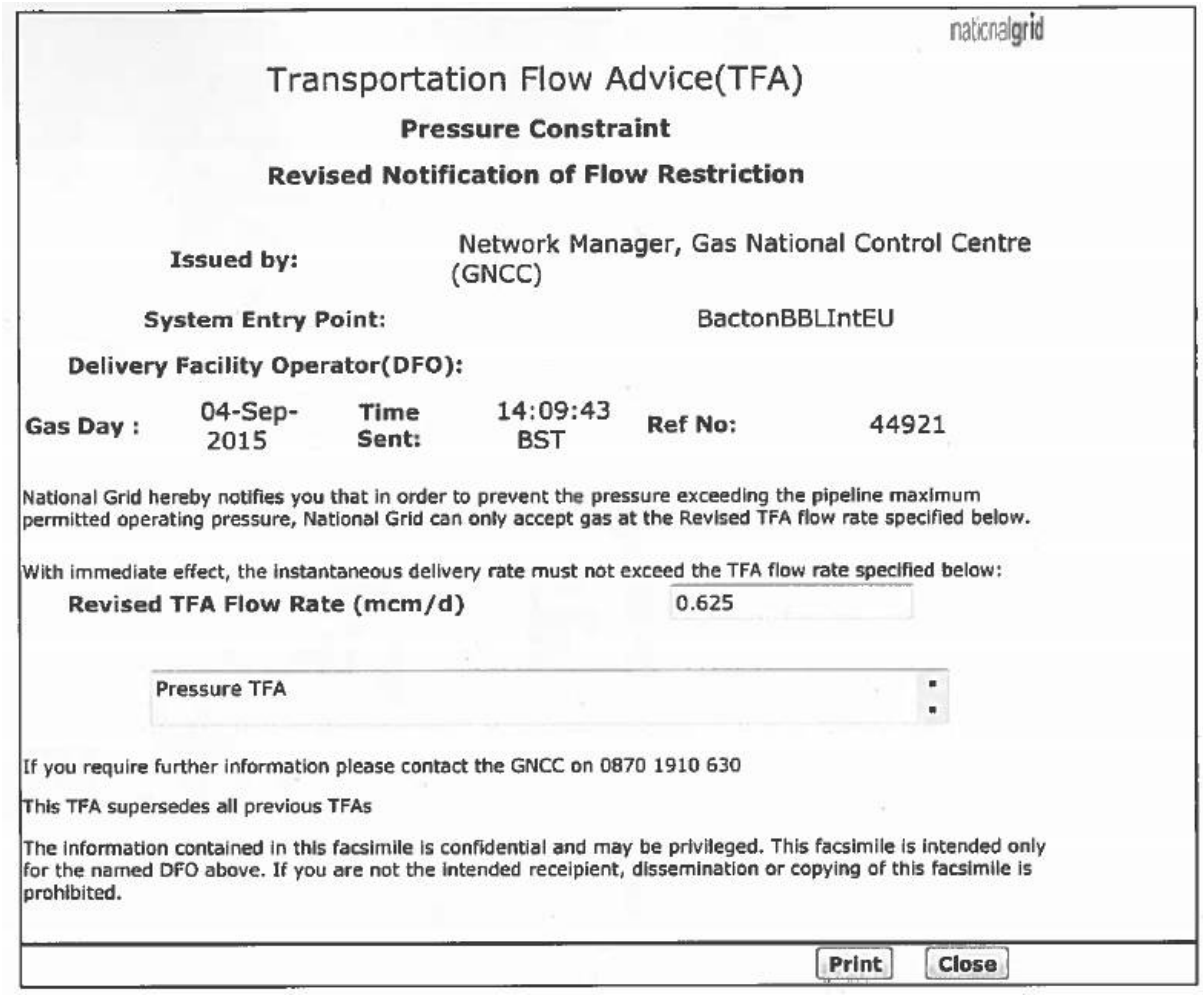
KIND REGARDS,

CCP GTS GRONINGEN
ON BEHALF OF BBL COMPANY

Attachment B to Appendix ~~3~~8 - Gas Quality TFA



Attachment C to Appendix ~~3~~8 - Pressure TFA



nationalgrid

Transportation Flow Advice(TFA)

Pressure Constraint

Revised Notification of Flow Restriction

Issued by: Network Manager, Gas National Control Centre (GNCC)

System Entry Point: BactonBBLIntEU

Delivery Facility Operator(DFO):

Gas Day : 04-Sep-2015 **Time Sent:** 14:09:43 BST **Ref No:** 44921

National Grid hereby notifies you that in order to prevent the pressure exceeding the pipeline maximum permitted operating pressure, National Grid can only accept gas at the Revised TFA flow rate specified below.

With immediate effect, the instantaneous delivery rate must not exceed the TFA flow rate specified below:

Revised TFA Flow Rate (mcm/d) 0.625

Pressure TFA

If you require further information please contact the GNCC on 0870 1910 630

This TFA supersedes all previous TFAs

The information contained in this facsimile is confidential and may be privileged. This facsimile is intended only for the named DFO above. If you are not the intended receipient, dissemination or copying of this facsimile is prohibited.

Print Close

Attachment D to Appendix ~~3~~8 - Communications

1 **National Grid Gas Shift Representative**

Network Manager

National Grid Gas plc

Gas Operations

National Grid House

Warwick Technology Park

Gallows Hill

Warwick CV34 6DA

Telephone: (Switchboard)	01926 ~~6530006~~530–0
(Control Room - Ops)	0870 191 0632
(Control Room – DFNs and OPNs)	0870 191 0635
(Operational Data team)	01926 654641
Facsimile: (Control Room)	0870 191 0647
(Operational Data team)	01926 656616
Email (Control Room):	box.gncc.controlroom@nationalgrid.com

Terminal Manager National Grid Gas plc Bacton Terminal Paston Road Bacton Norfolk NR12 0JD	Tel:	**Control Room 01692 403 487** **Contingency 01263 720 655**
	Fax:	Control Room 01263 721 783 Contingency 01263 721 543

2 CSO Representative

BBL Company V.O.F.

Attn. Gasunie Transport Services B.V. Afd. CCP

PO Box 181

9700 AS Groningen

The Netherlands

Telephone:	Gas transport	+3150 521 1500
	Nomination handling	+31 50 521 1560
	Nomination handling, within Day	+31 50 521 1510
Facsimile:	Physical transport	+31 50 521 1550
	Nomination handling	+31 50 521 1575
Email:	Physical transport	ccpmail@gastransport.nl
	Commercial transport	ccpcontractdispatching.nl

Attachment E to Appendix ~~3~~8 - Gas Quantity Delivery and Offtake Report

From: [CSO]	To: National Grid Gas
Address: [ ]	Address: [ ]
Fax: [ ]	Fax: [0870 191 0647]
Tel: [ ]	Tel: [ ]

Gas Delivery/Offtake Statement for [CSO Facilities]

Date: [ ] Time: [ ]

Gas Day commencing 0500 hours UTC or 0400 hours UTC during day light saving time periods on: [ ]

	Gas Deemed to have Delivered	~~Gas~~~~Deemed~~Gas Deemed been to have been Offtaken	Meter Reading for gas Delivered	Meter Reading for gas Offtaken
Energy values (kWh)				
GCV (MJ/NCM)				
Volume (MNCM)				

Average Calorific Value (MJ/MNCM): [XX.XX]

OBA Statement for [CSO Facilities]

Gas Day commencing 0500 hours UTC or 0400 hours UTC during day light saving time periods on: [ ]

	Start of Day Cumulative Steering Difference	Steering Difference	End of Day Cumulative Steering Difference
Energy values (kWh)			

Signature:

Attachment F to Appendix ~~3~~8 – Notification of Maintenance

This form is used to notify National Grid Gas of the maximum gas flow of which the CSO Facilities are capable, at the System Entry Point to the NGG System and the Connected System Exit Point from the NGG System, taking into account all information available to the CSO, concerning planned maintenance activities both onshore and offshore.

This information is provided in good faith based upon best judgement of the CSO without liability.

To be returned by 15th of each quarter: **September** (for that calendar year and the following calendar year)

December (for the following calendar year)

March and **June** (for that calendar year)

In between each quarterly update any changes to previously communicated planned maintenance should be provided to National Grid Gas (on the same proforma), as soon as they are known.

To:

Company Name	National Grid Gas plc
Contact Name	
Telephone Number	
Fax Number	
E-mail Address	

From:

Company Name	
Location	
Contact Name	
Telephone Number	
E-mail Address	
Signed	

MAINTENANCE DETAILS:

Ref. No.	Start Date	Finish Date	Onshore or Offshore Maintenance Activity (with details where appropriate)	Resulting gas flow capability at Terminal Facility (MNCM/D) for NTS Entry Gas	Resulting gas flow capability at Terminal Facility (MNCM/D) for NTS Exit Gas	Provisional or Confirmed

Attachment G to Appendix ~~3~~8 – Notification of Maintenance

This form is used to notify the CSO of the maximum gas flow of which the NGG Facilities are capable, at the System Entry Point to the NGG System and the Connected System Exit Point from the NGG System, taking into account all information available to National Grid Gas, concerning planned maintenance activities both onshore and offshore.

This information is provided in good faith based upon best judgement of National Grid Gas without liability.

To be returned by 15th of each quarter: **September** (for that calendar year and the following calendar year)

December (for the following calendar year)

March and **June** (for that calendar year)

In between each quarterly update any changes to previously communicated planned maintenance should be provided to the CSO (on the same proforma), as soon as they are known.

To:

Company Name	BBL Company V.O.F.
Contact Name	
Telephone Number	
Fax Number	
E-mail Address	

From:

Company Name	
Location	
Contact Name	
Telephone Number	
E-mail Address	
Signed	

MAINTENANCE DETAILS:

Ref. No.	**Start Date**	**Finish Date**	**Onshore or Offshore Maintenance Activity (with details where appropriate)**	**Resulting gas flow capability at Terminal Facility (MNCM/D) for NTS Entry Gas**	**Resulting gas flow capability at Terminal Facility for NTS Exit Gas**	**Provisional or Confirmed**

Appendix 4 - Nominations

1 **General**

1.1 The arrangements in this Appendix 4 are agreed in order to be compliant with the requirements of Article 3(c), 8, 10 and 21 of the Interoperability Code and Article 12(3) of the Balancing Code.

1.2 The arrangements in this Appendix shall apply with respect to Nominations in respect of the Gas Day(s) commencing on or after 1 October 2015, except that the provisions of this Appendix in relation to Single-Sided Nominations shall only apply in respect of the Gas Day(s) which commence on or after 1 November 2015.

2 **Interpretation**

2.1 In this Appendix the following terms have the following meanings:

CSO Nomination means a Nomination (including a Renomination) submitted by a CSO Shipper to the CSO which is not rejected by the CSO under the CSO's Transportation Arrangements;

Corresponding is defined in paragraph 5.3;

Counterparty Shipper means:

(a) in relation to a NGG Nomination, the CSO Shipper, or

(b) in relation to a CSO Nomination, the NGG Shipper

specified in such Nomination as the Shipper making a corresponding Nomination to the other Operator;

Daily Quantity means a Nomination Quantity (expressed as a daily quantity) for the Gas Day;

Double-Sided Nomination means a Nomination submitted by a NGG Shipper to NGG or by a CSO Shipper to the CSO which is not a Single-Sided Nomination;

Hourly Quantity means a Nomination Quantity (expressed as an Hourly quantity) for an Hour in the Gas Day;

Initial Nomination means a Nomination submitted before the Gas Day under which the nominated quantity is to flow from the start of the Gas Day;

Initiating TSO means the initiating transmission system operator as referred to in Article 8(2)(c) of the Interoperability Code;

Matching Timetable means the timetable set out in paragraph 7 for the actions required in each Nomination Cycle by each Operator under this Appendix;

Matching TSO means the matching transmission system operator as referred to in Article 8(2)(c) of the Interoperability Code;

NGG Nomination means a Nomination (including a Renomination) submitted by a NGG Shipper to NGG which is not rejected by NGG under the Network Code;

Nomination means a nomination by a Shipper to either Operator of a quantity of gas to be delivered to or offtaken from that Operator's System at the Connected Systems Point on a Gas Day or in each Hour of the Gas Day, and includes a Renomination;

Nomination Cycle means the cycle for processing and confirmation of Initial Nominations, and Renominations in each Hour, as described in paragraph 3;

Nomination Quantity means the quantity of gas nominated in a Nomination (or such quantity as processed or confirmed as described in this Appendix);

Renomination means a Nomination by a Shipper which revises an earlier Nomination for a Gas Day;

Renomination Effective Time means the time on the Gas Day from which a Renomination is to become effective;

Single-Sided Nomination means a Nomination submitted to NGG (as Initiating TSO), by a Shipper which is both a NGG Shipper and a CSO Shipper, which operates as both NGG Nomination and CSO Nomination;

2.2 In relation to a Nomination:

(a) the **Processed** Nomination Quantity is the Nomination Quantity adjusted by processing in accordance with the relevant Operator's Transportation Arrangements;

(b) the **Confirmed** Nomination Quantity is the quantity for which the Nomination is approved as determined by the CSO (as the Matching TSO) in accordance with paragraph 5.5;

(c) the Direction signifies whether the Nomination is for offtake from the NGG System and delivery to the CSO System, or offtake from the CSO System and delivery to the NGG System.

3 Nomination Arrangements

3.1 This paragraph 3 summarises certain provisions of each Operator's Transportation Arrangements relating to Nominations, on the basis of which this Appendix operates; and each Operator confirms that it considers its Transportation Arrangements to be consistent with this paragraph 3 and otherwise compatible with the provisions of this Appendix.

3.2 NGG Nominations specify Nomination Quantities as Daily Quantities, and CSO Nominations specify Nomination Quantities as Hourly Quantities.

3.3 Nominations contain the data necessary to enable each Operator to perform its responsibilities under paragraph 5.

3.4 Initial Nominations may be submitted no later than 13:00 UTC (12:00 UTC during day light saving periods) on Gas Day D-1.

3.5 Renominations may be submitted no earlier than 15:00 UTC (14:00 UTC during day light saving periods) on Gas Day D-1 and thereafter until 02:00 UTC (01:00 UTC during day light saving periods) on Gas Day D.

3.6 For a Renomination submitted within any hour (H):

(a) the Renomination is treated as submitted at the start of hour H+1 (**renomination submission time**);

(b) the Renomination Effective Time must be an Exact Hour no earlier than two (2) hours after the renomination submission time (and not earlier than the start of the Gas Day) and not later than 04:00 UTC (or 03:00 during day light saving periods) on the Gas Day.

3.7 For any Nomination, the Operator will notify the Confirmed Nomination Quantity to the Shipper no later than two Hours after:

(a) in the case of an Initial Nomination, the deadline for submission referred to in paragraph 3.5;

(b) in the case of a Renomination, the renomination submission time.

3.8 Where a Shipper does not submit an Initial Nomination by the relevant deadline for that Initial Nomination:

(a) the relevant Shipper shall be deemed to have submitted a Nomination with a Nomination Quantity of zero; and

(b) such deemed Nomination shall not be subject to the process described in paragraph 5.1 and the relevant Operator shall not determine nor communicate a Processed Nomination Quantity in respect of such deemed Nomination.

4 Roles of Operators

4.1 NGG shall be the Initiating TSO and the CSO shall be the Matching TSO.

4.2 The CSO (as Matching TSO) appoints NGG (as Initiating TSO) as its agent to receive Single-Sided Nominations from Shippers which are both NGG Shippers and CSO Shippers.

5 Responsibilities of TSOs

5.1 For each Nomination Cycle, in accordance with the Matching Timetable:

(a) NGG as Initiating TSO will send to the CSO:

(i) details of the Single-Sided Nominations submitted for that Nomination Cycle in accordance with paragraph 5.2 (to enable the CSO to determine Processed Nomination Quantities); and

(ii) details in respect of the NGG Nominations submitted for that Nomination Cycle in accordance with paragraph 5.3;

(b) the CSO as Matching TSO will:

(i) determine which NGG Nominations and CSO Nominations are Corresponding Nominations in accordance with paragraph 5.4;

(ii) convert the Processed Daily Quantities for the Corresponding NGG Nominations to Processed Hourly Quantities in accordance with paragraph 5.5;

(iii) in relation to the Corresponding Nominations, determine the Confirmed Hourly Quantities from the Processed Hourly Quantities in accordance with paragraph 5.6;

(iv) send to NGG the Confirmed Hourly Quantities for the Corresponding Nominations (together with the Processed Nomination Quantities in respect of the CSO Nominations), and inform NGG of any NGG Nominations which are not Corresponding Nominations;

(c) NGG (as Initiating TSO) will calculate Confirmed Nomination Quantities (as Daily Quantities) from the Confirmed Hourly Quantities in accordance with paragraph 5.7; and

(d) NGG and the CSO will inform their respective Shippers of the Confirmed Nomination Quantities.

5.2 The details of Single-Sided Nominations to be sent by NGG to the CSO under paragraph 5.1(a)(i) are:

(a) the identity of the Shipper submitting the Nomination;

(b) the identity of the Counterparty Shipper specified;

(c) the Nomination Type (single or double sided nomination);

(d) the Gas Day to which the Nomination relates;

(e) the Direction of the Nomination;

(f) the Nomination Quantity (as a Daily Quantity); and

(g) the proposed Renomination Effective Time.

5.3 The details of NGG Nominations to be sent by NGG to the CSO under paragraph 5.1(a)(i) are:

(a) the identity of the NGG Shipper submitting the Nomination;

(b) the identity of the Counterparty Shipper specified in the Nomination;

(c) the Gas Day to which the Nomination relates;

(d) the Direction of the Nomination;

(e) the Processed Daily Quantity;

(f) whether the Nomination is Single-Sided or Double-Sided; and

(g) the proposed Renomination Effective Time.

5.4 A NGG Nomination and a CSO Nomination are **Corresponding** Nominations where:

(a) the NGG Nomination is a Single-Sided Nomination; or

(b) in the case of Double Sided Nominations:

(i) they relate to the same Gas Day;

(ii) they are in the same Direction;

(iii) the Shipper identified as Counterparty Shipper in each Nomination is the Shipper which submitted the other Nomination; and

(iv) they are Initial Nominations, or are Renominations with the same renomination submission time and Renomination Effective Time.

5.5 The Processed Hourly Quantity (PHQ_N) in respect of a NGG Nomination is determined from the Processed Daily Quantity (PDQ_N) as follows:

(a) in the case of an Initial Nomination:

$PHQ_N = PDQ_N / 24$

(b) in the case of a Renomination:

$PHQ_N = \{(PDQ_N - \sum_P CHQ_P) / H\}$

where

$\sum_P$ is the sum over Hours in the Gas Day up to the Renomination Effective Time;

CHQ_P is the Confirmed Hourly Quantity for each Hour in the Gas Day up to the Renomination Effective Time under the last NGG Nomination prevailing at such Hour

H is the number of Hours of the Gas Day remaining from the Renomination Effective Time.

5.6 The Confirmed Hourly Quantity for Corresponding Nominations for each Hour is determined as follows:

(a) where the Processed Hourly Quantities under both Nominations is the same, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity;

(b) where the Processed Hourly Quantities under both Nominations is not the same, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity under the CSO Nomination, subject to paragraphs (c) and (d);

(c) where (at the start of the relevant Nomination Cycle) NGG has notified to the CSO an Exceptional Event under paragraph 6, and has not notified the cessation of the Exceptional Event, in relation to Nominations in the affected Direction, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity under the NGG Nomination;

(d) where (at the start of the relevant Nomination Cycle) NGG has notified to the CSO a Gas Deficit Emergency and has not notified the cessation of the Gas Deficit Emergency, in relation to Nominations in the affected Direction, the Confirmed Hourly Quantity is equal to the Processed Hourly Quantity under the NGG Nomination.

5.7 The Confirmed Daily Quantity (CDQ) for a NGG Nomination is determined from the Confirmed Hourly Quantities as follows:

$$CDQ = \sum CHQ$$

where

$\sum$ is the sum over Hours in the Day;

CHQ is, for each Hour in the Day, the Confirmed Hourly Quantity under the NGG Nomination or (in the case of a Renomination, for Hours up to the Renomination Effective Time) the Confirmed Hourly Quantity under the last NGG Nomination prevailing at such Hour.

6 Exceptional Events and Gas Deficit Emergencies

6.1 Either Operator (the **Affected Operator**) may (before or during the Gas Day) notify the other Operator:

(a) that there is an Exceptional Event or, in the case of NGG, a Gas Deficit Emergency affecting the Affected Operator's System, and the Direction (**affected** Direction) in which it is affected by the Exceptional Event; or

(b) that an Exceptional Event or Gas Deficit Emergency previously notified is no longer affecting the Affected Operator's System.

6.2 Where an Operator notifies an Exceptional Event or, in the case of NGG, a Gas Deficit Emergency (under paragraph 6.1(a)) to the other Operator, in relation to Nominations in the affected Direction:

(a) the Affected Operator may determine (in accordance with its Transportation Arrangements) revised Processed Nomination Quantities for its Nominations prevailing at the time;

(b) if NGG is the Affected Operator, NGG (as Initiating TSO) will notify the revised Processed Nomination Quantities to the CSO;

(c) the CSO (as Matching TSO) will redetermine and notify to NGG revised Confirmed Hourly Quantities for Nominations, on the basis of the revised Processed Nomination Quantities in accordance with paragraph 5.1(b);

(d) the Operators will notify the revised Confirmed Hourly Quantities to their respective Shippers in accordance with paragraph 5.1(d).

6.3 The steps in paragraph 6.2 will be taken in accordance with the Matching Timetable on the basis that the Nomination Cycle starts following the Hour during which the Affected Operator notifies the Exceptional Event or Gas Deficit Emergency or its cessation.

7 Matching Timetable

7.1 The Matching Timetable is as follows:

Matching Activity	Paragraph reference in this Appendix	Deadline for Provision (Relative to Commencement of Nomination Cycle)
NGG (as Initiating TSO) forwards Single Sided Nominations to the CSO (as Matching TSO)	5.1(a)(i)	Within 15 minutes
NGG (as Initiating TSO) forwards its Processed Nomination Quantities to the CSO (as Matching TSO)	5.1(a)(ii)	Within 45 minutes
The CSO (as Matching TSO) forwards its Processed Nomination Quantities and the Confirmed Hourly Quantities to NGG (as Initiating TSO)	5.1(b)(iv)	Within 90 minutes
NGG and the CSO notify Confirmed Nomination Quantities to Shippers	5.1(d)	Within 120 minutes

7.2 If in any Nomination Cycle either Operator is unable to meet any deadline in the Matching Timetable for sending data to the other Operator, it will before the deadline inform the other Operator, and will send the relevant data as soon as it is able to, and the other Operator will use reasonable endeavours to perform its activities when the data is sent.

8 Communications

8.1 This paragraph 8 sets out terms agreed between the Parties in connection with the exchange of data pursuant to this Appendix. The terms in this Appendix apply in addition to the terms of Clauses 5 and 11.4 of the Agreement.

8.2 The arrangements in this paragraph 8 are agreed in order to address the requirements of Article 21 of the Interoperability Code.

8.3 The Parties shall use document-based data exchange to send and receive data.

8.4 The Parties shall send data under this Appendix in the data format, and in accordance with the protocol, and by the network, each specified below:

(a) the data format to be used is: Edig@s-XML.

(b) the protocols to be used:

(i) by the CSO is AS2 and/or AS4 (document based exchange); and

(ii) by NGG is https://soap (web services integrated data exchange).

(c) the network to be used is internet.

8.5 As NGG's systems use integrated data exchange, NGG will (as part of its arrangements under Clause 11.4 of the Agreement) develop, maintain and use an interface to convert data between the CSO's data exchange protocol specified in this paragraph 8 and the data exchange protocol which can be used with NGG's systems.

Attachment H to Appendix 8 – Offtake Profile Notification

GASUNIE DISPATCHING

GTS - BBL

DATE : TIME : HR S.NR :

FROM : GTS GRONINGEN

TO : NATIONAL GRID UK
COPY : SHELL BACTON

SUBJECT : OFFTAKE PROFILE NOTIFICATION

PERIOD :

HOURLY FLOW RATES IN UK TIME !

CV :

UK-TIME	KWH
05 - 06	
06 - 07	
07 - 08	
08 - 09	
09 - 10	
10 - 11	
11 - 12	
12 - 13	
13 - 14	
14 - 15	
15 - 16	
16 - 17	
17 - 18	
18 - 19	
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KIND REGARDS,

CCP GTS GRONINGEN
ON BEHALF OF BBL COMPANY

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Attachment I to Appendix 8 – OPN Rejection Notice

National Grid NTS

Rejection FAX Message

RE: BBL

FAX:

Fax: Gas National Control Centre

National Grid House, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

From: 08701910635

Phone: 08701910647

Date:

Site Name: **Bacton BBL**

Gas Day:

OPN Generated Time:

The most recent notification has breached one of the contractual terms in your agreement. Please resubmit the notification or contact the GNCC at the above number for additional information.

Attachment J to Appendix 8 – BBL Demand Reduction Notice



BBL Demand
Reduction Notificatior

Attachment K to Appendix 8 – BBL Revocation Notice

Appendix 5 - Operational Balancing Agreement

1 Definitions

1.1 For the purposes of this Appendix 5:

Aggregate Confirmed Quantity (Forward Flow) means the sum of the Confirmed Nomination Quantities of natural gas for offtake from the CSO System and delivery to the NGG System at the CSP on a Day;

Aggregate Confirmed Quantity (Reverse Flow) means the sum of the Confirmed Nomination Quantities of natural gas for offtake from the NGG System and delivery to the CSO System at the CSP on a Day;

Aggregate Net Confirmed Quantity means the difference between the Aggregate Confirmed Quantity (Forward Flow) and the Aggregate Confirmed Quantity (Reverse Flow);

Agreed Target Quantity means the quantity of gas which the CSO and NGG agree is to flow at the CSP on a Day;

Confirmed Nomination Quantity means a Confirmed Daily Quantity as defined in Appendix 4 (Nominations);

Cumulative Steering Difference means, for 30 September 2015, zero, and for any subsequent Gas Day (D), the sum of the Cumulative Steering Difference for Gas Day D-1 (CSD_{D-1}) plus the Cumulative Steering Difference Correction for Gas Day D ($CSDC_D$) plus the Steering Difference (SD_D) for that Day, subject to paragraph 6.4;

Cumulative Steering Difference Correction means a quantity of gas that the Parties agree should be deducted from or added to the Aggregate Net Confirmed Quantity for a Day in accordance with paragraph 5 in order to determine the Agreed Target Quantity.

Daily Metered Quantity means the measured quantity of natural gas off taken from the CSO System and delivered to the NGG System at the CSP on a Day;

Part-Day Steering Difference is defined in paragraph 6.5;

Proportional Allocation means allocation to Shippers of quantities in proportion to their Confirmed Nomination Quantities;

Steering Tolerance means a tolerance on the Cumulative Steering Difference equal to 2930 MWh (equivalent to 0.30 MNCM);

Steering Difference or **SD** means for a Day the difference between the Daily Metered Quantity and the Agreed Target Quantity at the end of the Day, and is:

(a) positive if the Daily Metered Quantity is greater than the Agreed Target Quantity, and

(a) negative if the Daily Metered Quantity is less than the Agreed Target Quantity.

1.2 Terms which are defined in Appendix 4 (Nominations) have the meanings given to them in that Appendix.

1.3 The Aggregate Net Confirmed Quantity (and quantities from which it is derived) and Agreed Target Quantity for a Day are calculated following each Nomination Cycle.

1.4 For the purposes of determining Agreed Target Quantity for a Gas Day (D), or whether the condition in paragraph 6.2(a) is met on Gas Day D, the SD and CSD for Gas Day D-1 shall be determined based on the Daily Measured Quantity for Gas Day D-1 as determined (in accordance with Appendix 1 Part 2) as at 10:00 UTC (09:00 UTC during daylight saving time periods) on Gas Day D; and paragraph 8 shall apply if any subsequent adjustment is made in respect of the Daily Measured Quantity.

1.5 Unless otherwise agreed, where the CSO is to provide information or data to NGG under this Appendix 4, the CSO will do so by publishing such information or data on the National Grid Overview.

2 Flow Control

2.1 The Parties agree that the CSO is responsible for flow control at the CSP.

2.2 For each Day, the CSO shall use all reasonable endeavours to steer a quantity of gas equal to the Agreed Target Quantity prevailing following each Nomination or Renomination Cycle (but subject to the requirements of Appendix 1 and Appendix 3).

3 OBA Management

3.1 For each Gas Day D, the CSO shall make available to NGG the SD and the CSD in respect of Gas Day D-1 within one hour of the start of Gas Day D; should access to the National Grid Overview be unavailable then the CSO shall communicate the SD and the CSD in respect of Gas Day D-1 by email to NGG within 90 minutes of the start of Gas Day D.

3.2 If NGG considers that the CSO has incorrectly calculated the SD or the CSD for a Day, NGG shall contact the CSO and they shall discuss and agree on the correct values of the SD and CSD.

4 Delivery Accuracy

The CSO shall use reasonable endeavours to ensure that the Steering Difference is kept as close as possible to zero.

5 Cumulative Steering Difference Corrections

5.1 The Parties shall cooperate to reduce the CSD in the event that the absolute value of the CSD exceeds the Steering Tolerance.

5.2 For each Gas Day D, if the absolute value of the CSD for Gas Day D-1 (CSD_{D-1}) exceeds the Steering Tolerance, there shall be a Cumulative Steering Difference Correction which (unless otherwise agreed) shall be an amount equal to the value of the CSD_{D-1} and shall be positive where CSD_{D-1} is negative and negative where CSD_{D-1} is positive.

5.3 If for Gas Day D the absolute value of CSD_{D-1} does not exceed the Steering Tolerance, there shall be no Cumulative Steering Difference Correction unless the Parties otherwise agree.

5.4 The Agreed Target Quantity for each Day shall be the Aggregate Net Confirmed Quantity plus the Cumulative Steering Difference Correction for the Day.

5.5 The Agreed Target Quantity following each Nomination or Renomination Cycle for each Day shall be reflected in the DFN issued by the CSO at the time.

5.6 The Operators acknowledge and agree that the Cumulative Steering Difference represents a quantity of gas borrowed by one Operator from the other and which the other Operator is entitled to have returned under the arrangements in this Appendix. If this Agreement is terminated then (unless the Operators agree otherwise) the Operators will ensure gas flows before or at the time of termination such that any Cumulative Steering Difference at the time is returned to the Operator to which it is owed. If the Operator owing any Cumulative Steering Difference (i) becomes insolvent or (ii) on termination of this Agreement does not return such Cumulative Steering Difference, the Operator to which it is owed will be entitled to make a financial claim against the first Operator in respect of the value of the gas comprising the Cumulative Steering Difference.

6 Allocation Principles

6.1 The Parties' respective Transportation Agreements provide for the quantities delivered and offtaken at the CSP to be allocated among each Party's respective Shippers in respect of each Day, based on the Confirmed Nomination Quantities, as follows:

(a) except where the Parties agree to implement Proportional Allocation for the Day in accordance with paragraph 6.2, the quantity allocated to each Shipper in each Direction is equal to the sum (by Counterparty Shipper) of the Confirmed Nomination Quantities for that Shipper in that Direction;

(b) if the Parties agree to implement Proportional Allocation for the Day in accordance with paragraph 6.2:

(i) the quantity to be allocated by the CSO to each CSO Shipper in each Direction is determined by the CSO in accordance with the allocation rules in the CSO's Transportation Arrangements (and on NGG's request the CSO will inform NGG of such allocation rules);

(ii) provided that the CSO provides to NGG the information for the Day in compliance with the requirements in paragraph 6.3, the quantity to be allocated by NGG to each NGG Shipper in each Direction is determined as the sum of the CSO Shipper Allocations in respect of the Nominations under which the CSO Shippers were Counterparty Shippers for that NGG Shipper in that Direction;

(iii) if the CSO does not provide to NGG such information for the Day, the quantity to be allocated by NGG to each Shipper in each Direction is determined in accordance with the alternative allocation rules in NGG's Transportation Arrangements.

6.2 NGG and the CSO may agree at any time within Gas Day D to implement Proportional Allocation for the Day if:

(a) the Cumulative Steering Difference, as forecast at such time by the CSO and discussed with NGG, at the end of the Gas Day D will or would exceed the Steering Tolerance;

(b) the Parties, having used their reasonable endeavours, are unable (at such time) to agree to allow the Cumulative Steering Difference to exceed the Steering Tolerance after the Day for a period of time;

(c) at or before such time on Gas Day D an Exceptional Event has occurred in relation to either System which affected the ability of NGG or the CSO (the affected Party) to deliver gas to or accept gas for delivery from the CSP and which, in the reasonable opinion of the affected Party, occurred too late in the Day to be resolved, using the constraint management tools available to that Party, before the end of the Day; and

(d) the Parties have so notified their respective Shippers active at the CSP that Proportional Allocation will apply.

6.3 If for a Day the Parties agree to implement Proportional Allocation in accordance with paragraph 6.2, the CSO shall:

(a) allocate (as provided in paragraph 6.1) to each of its Shippers for the Day a quantity in respect of each Nomination submitted by such Shipper for the Day, such that the net sum of:

(i) such quantities for all Shippers and all Nominations in both Directions,

(ii) the Cumulative Steering Difference Correction, and

(iii) the Part-Day Steering Difference, if any

is equal to the Daily Metered Quantity;

(b) provide to NGG no later than Gas Day D+5 the following information:

(i) for each Nomination submitted by each CSO Shipper,

the quantity allocated (under paragraph (a)) to such CSO Shipper in respect of such Nomination (**CSO Shipper Allocation**); and

(i) the Part-Day Steering Difference for the Day.

6.4 In the event of Proportional Allocation for a Gas Day D the Cumulative Steering Difference for Day D shall be determined as the sum of:

(a) the Cumulative Steering Difference for Gas Day D-1;

(b) the Cumulative Steering Difference Correction (if any) for Gas Day D; and

(c) the Part-Day Steering Difference for Gas Day D.

6.5 For the purposes of this Appendix:

(a) the **Part-Day Steering Difference** for a Day on which Proportional Allocation applied, shall be the quantity determined by the CSO as the sum of the Hourly

steering differences for those Hours of the Gas Day for which, under the CSO's Transportation Arrangements, the CSO made shipper allocations equal to nominated quantities; and

(b) for such an Hour, the **hourly steering difference** is the amount determined by the CSO as the difference (after taking into account targeted correction of steering difference) between:

(i) the Confirmed Hourly Quantities for that Hour, and

(ii) the measured quantity of natural gas off taken from the CSO System and delivered to the NGG System at the CSP in that Hour.

7 Proportional Allocation Request Notice ("PARN")

7.1 The PARN shall be used by a Party in order to make a request to the other Party that the allocations shall be calculated on a proportional basis as described in Article 6.1(b) (rather than a deemed basis as described in Article 6.1(a) for the Gas Day indicated on the PARN.

7.2 The PARN shall be valid and timely delivered if the Party requesting proportional allocation has sent the notice to the other Party at the latest or within 2 Hours before the Hour on Gas Day D that Proportional Allocation will apply and if the criteria in paragraphs 6.2(a) 6.2(b) 6.2(c) and 6.2(d) and have been met.

8 Adjustments of Daily Metered Quantity

8.1 The Daily Metered Quantity in respect of a Gas Day or Gas Days may be revised pursuant to the arrangements in Appendix 1 Part 2.

8.2 In the event that Daily Metered Quantity is increased in respect of one or more Gas Days, the aggregate amount of such increase shall be added to the Cumulative Steering Difference for the Gas Day on which the revision is agreed or determined.

8.3 In the event that Daily Metered Quantity is reduced in respect of one or more Gas Days, the aggregate amount of such reduction shall be deducted from the Cumulative Steering Difference for the Gas Day on which the revision is agreed or determined.

8.4 The Operators may agree to take such revision into account (in accordance with paragraph 8.2 or 8.3) in calculating the CSD for a Gas Day later than the Gas Day specified in paragraph 8.2/8.3, or to apportion such revision over more than one such Gas Day.

8.5 Paragraphs 8.2 and 8.3 will not apply with respect to an adjustment to a Daily Metered Quantity made later than the Exit Close-Out Date.

9 Error correction

9.1 Subject to paragraph 9.3, if a Shipper of either Operator notifies that Operator, or either Operator otherwise becomes aware, that it has or may have made an error in implementing the provisions of its Transportation Arrangements or Appendix 4 (Nominations) or this Appendix in respect of (1) the determination of the Processed Nomination Quantity or Confirmed Nomination Quantity in respect of a Nomination submitted by a Shipper, or (2) the determination of the quantities to be allocated (pursuant to such a Nomination) to a Shipper:

(a) that Operator (A) shall so notify the other Operator (B) providing details of the error and the Shipper and Nomination affected by the error;

(b) Operator B shall notify the Counterparty Shipper of the error;

(c) Operator A shall investigate the error (where appropriate, in consultation with Operator B and/or either Shipper);

(d) if it is confirmed that there was an error, the Operators shall determine, and notify to the Shipper and Counterparty Shipper, what redeterminations are needed to correct the error;

(e) if both the Shipper and the Counterparty Shipper accept (by notice to their respective Operator) the proposed correction notified under paragraph (d), the Operators shall give effect to such correction by redetermining (for the purposes of their respective Transportation Arrangements) the Confirmed Nomination Quantities or (as the case may be) quantities allocated for the Shipper and Counterparty Shipper;

(f) where the error was notified within the Day on which it occurred, the Operators will endeavour to do the foregoing within the Day.

9.2 If the correction of an error gives rise to a change in the calculation of the Steering Difference for the Day, the amount of the change shall be added to the Cumulative Steering Difference for the Day on which the error was corrected.

9.3 No correction of an error in relation to a Day shall be made under this paragraph 9 later than the Exit Close-out Date (as defined in the Network Code).

10 Reference temperatures

10.1 It is acknowledged that, until 1 April 2016:

(a) different reference temperatures apply (for the purposes of determining volume in Cubic Metres and calorific value) in the Network Code and in this Agreement;

(b) Nomination Quantities in NGG Nominations are based on the reference temperatures in the Network Code;

(c) Confirmed Nomination Quantities may (depending on the circumstances) be derived from Nomination Quantities based on one set of reference temperatures or the other;

(d) because Daily Metered Quantity is based on the reference temperatures in this Agreement, the following quantities are treated as based on the reference temperatures in this Agreement irrespective of the reference temperatures of Confirmed Nomination Quantities: Agreed Target Quantity, Steering Difference, Cumulative Steering Difference, Cumulative Steering Difference Correction, Part Day Steering Difference;

and it is agreed that no adjustments are to be made to any such quantity in respect of such differences in reference temperatures.



BBL Notice of Revocation Form.pdf

Appendix 6 - Capacity

1 Introduction

1.1 This Appendix 6 sets out arrangements between the Operators in connection with the allocation to Shippers and holding, surrender and transfer by Shippers of bundled capacity at the Connected Systems Point:

(a) the allocation to Shippers and holding, surrender and transfer by Shippers of bundled capacity at the Connected Systems Point;

(b) the coordination required by the Operators in relation to interruptible capacity, at the Connected Systems Point; and

(c) capacity maximisation, at the Connected Systems Point.

1.2 The arrangements in this Appendix 6, in addition to the other arrangements in this Agreement are agreed in compliance with the requirements of Articles 4, 5, 6, 7,19, 20, 22, 23, and 27 the CAM Code.

1.3 The arrangements in this Appendix shall apply with respect to IP Capacity in respect of the Day(s) which commence on or after 1 November 2015.

2 Interpretation

In this Appendix:

Auction means an auction of IP Capacity of a particular period, Direction and class;

Auction Premium means the amount by which the clearing price in an Auction exceeds the starting price;

Bundled means, in relation to IP Capacity in one System, that it is, or is to be, bundled with IP Capacity in the other System either (a) for the purposes of allocation in a single Auction, or (b) (when held by a Shipper) for the purposes of the transfer of (and certain other transactions in respect of) such IP Capacity; and a reference to Bundled IP Capacity held by a Shipper in either System is to what is recorded as Bundled by the Operator of that System; and **Unbundled** shall be construed accordingly;

Bundled Capacity Auction means an Auction of Bundled IP Capacity;

class of IP Capacity means whether it is firm or interruptible;

IP Capacity means, for each Operator, capacity (defined in accordance with the Operator's Transportation Arrangements) in the Operator's System which may be held by that Operator's Shippers in connection with the offtake or (as the case may be) delivery of gas to that System at the Connected Systems Point; and where applicable a reference to IP Capacity is to IP Capacity in each System of the same period, Direction and class and (where applicable) amount;

period of IP Capacity means the period for which such IP Capacity (in the same amount for each Day of such period) is or is to be allocated or held;

Platform Operator means the operator of the booking platform on which certain activities by the Operators and/or their Shippers are to be carried out;

Platform Rules and Processes means the rules, systems, processes and algorithms of the Platform Operator applied and used by the Platform Operator in performing the functions contemplated by this Agreement.

3 Transportation Arrangements

3.1 This paragraph 3 summarises certain provisions of each Operator's Transportation Arrangements relating to Auctions and Bundled IP Capacity, on the basis of which this Appendix operates; and each Operator confirms that it considers its Transportation Arrangements to be consistent with this paragraph 3 and otherwise compatible with the provisions of this Appendix.

3.2 IP Capacity is allocated to Shippers by way of Auctions:

(a) for capacity products (defined by period, and by Direction and class) and available amounts of capacity, and

(b) held at intervals and at times, and

(c) under ascending clock or uniform price auction algorithms,

which comply with the CAM Code.

3.3 IP Capacity in one System is to be Bundled with IP Capacity in the other System for the purposes of allocation by Auctions to the extent required by the CAM Code (and otherwise may be allocated Unbundled).

3.4 Bundled IP Capacity is to be allocated to Shippers in a single Auction on a single booking platform.

3.5 The amount of technical IP Capacity which is to be withheld from allocation in an Auction for an annual period is:

(a) for the first 5 gas years from the Auction date, the lesser of the available IP Capacity or 10% of technical capacity;

(b) for the remaining 10 gas years, the lesser of the available IP Capacity or 20% of technical capacity.

3.6 The amount of IP Capacity in one System which may be allocated in an Auction for an annual period (other than the following year) Unbundled depends on the amount of IP Capacity in the other System which is already allocated.

3.7 The starting price in any Bundled Capacity Auction is the sum of reserve prices specified by each Operator.

3.8 Any Auction Premium in a Bundled Capacity Auction is to be allocated between the Operators in percentages agreed by them.

3.9 In a Bundled Capacity Auction under the ascending clock auction algorithm:

(a) the large price step is to be the sum of large price steps specified by each Operator;

(b) the small price step is to be a specified fraction (agreed by the Operators) of the large price step.

3.10 Where, in relation to the System of one Operator (Operator A):

(a) under Operator A's Transportation Arrangements, IP Capacity may be held by Shippers in connection with the offtake or delivery of gas from or to Operator A's System both at the Connected Systems Point, and at another point of interconnection between Operator A's System and another gas transmission system, and

(b) (in relation to any Auction) the amount of IP Capacity (in Operator A's System) available for allocation in aggregate at the Connected Systems Point and the other Connected Systems Point is less than the sum of the amounts of IP Capacity in the other Operator's System and capacity in the other gas transmission system available for allocation,

then there are linked Auctions (under Operator A's Transportation Arrangements) of IP Capacity Bundled with IP Capacity in the other Operator's System and bundled with capacity in such other gas transmission system.

3.11 If an Auction (the **first** Auction) under the ascending clock algorithm has not closed:

(a) where the next relevant Auction is under the ascending clock algorithm, by the fifth Business Day;

(b) where the next relevant Auction is under the uniform price algorithm, by the Business Day,

before the information publication date for the next relevant Auction, the first Auction will be discontinued without closing (where the next relevant Auction is the next Auction for IP Capacity in the same Direction as and for a period which includes any Day(s) in the period of the first Auction).

3.12 A Shipper holding Unbundled IP Capacity in both Systems may elect that such IP Capacity is to be Bundled by a notification to either Operator.

3.13 A Shipper may offer to surrender IP Capacity for reallocation in an Auction; and where a Shipper offers to surrender Bundled IP Capacity in one System, the Operators may agree that the offer is only valid if the Shipper has offered to surrender equivalent Bundled IP Capacity in the other System.

3.14 A transfer by a Shipper of Bundled IP Capacity in one System to another Shipper will not be valid unless the Shipper also transfers the IP Capacity in the other System with which it is Bundled to that other Shipper.

3.15 An Operator will record the amount of the IP Capacity in its System held by each Shipper which is and is not Bundled.

3.16 A Shipper holding Bundled IP Capacity in one System may not voluntarily terminate its Transportation Arrangements with the Operator of that System.

3.17 In order to participate in an Auction for or surrender or transfer IP Capacity, Shippers are required to be party to an agreement with the Platform Operator under which the Platform Operator will perform the functions contemplated by the relevant Operator's Transportation Arrangements

3.18 The arrangements described above will commence as follows:

(a) the first Auctions of Bundled IP Capacity:

(i) for a period of Within-day, will be for 1 November 2015;

(ii) for a period of one Day, will be for 1 November 2015;

(iii) for a period of one month, will be for December 2015;

(iv) for a period of a quarter, will be for quarters in the Gas Year 2016/17;

(v) for a period of a year, will be for the Gas Years 2016/17 to 2030/31;

(b) transfers and surrenders of Bundled IP Capacity may be made for periods commencing on or after 1 November 2015 (or earlier if agreed between the Operators).

4 Platform Operator

4.1 The Operators agree that the Platform Operator for the Connected Systems Point will be PRISMA European Capacity Platform GmbH.

4.2 The Operators may agree to change the Platform Operator (subject to the requirements in their respective Transportation Arrangements), but neither Operator shall change the Platform Operator without the other Operator's agreement to do so.

4.3 The functions to be performed by the Platform Operator are:

(a) in relation to Auctions:

(i) determining amounts of Bundled and Unbundled IP Capacity available for allocation in each Auction;

(ii) publication of Auction information and holding of Auctions (in respect of both Bundled and Unbundled IP Capacity);

(b) receipt and validation of transfers by Shippers of IP Capacity (both Bundled and Unbundled);

(c) receipt and validation of surrenders by Shippers of IP Capacity (both Bundled and Unbundled).

4.4 Each Operator shall be party to an agreement with the Platform Operator under which the Platform Operator agrees to perform the functions contemplated by this Appendix and by that Operator's Transportation Arrangements.

4.5 Nothing in this Appendix requires the Operators to enter into or incur any joint obligations or liabilities to the Platform Operator; and each Operator is severally responsible for any fees or

other amounts payable to the Platform Operator in connection with its agreement under paragraph 4.3.

4.6 Each Operator considers that the Platform Rules and Processes are compatible with its Transportation Arrangements and with the provisions of this Appendix.

4.7 If any incompatibility is found between the Platform Rules and Processes and the provisions of this Appendix the Operators will discuss the matter with a view to agreeing whether to amend this Appendix, seek a modification of the Platform Rules and Processes and/or pursue a modification of the relevant Operator's Transportation Arrangements.

4.8 Each Operator shall:

(a) send to the Platform Operator the information necessary to enable the Platform Operator to hold Bundled Capacity Auctions and perform its other functions contemplated by this Appendix; and

(b) where the Platform Rules and Processes allow or require that Operator to make choices, make such choices as are required to give effect to this Appendix.

4.9 If (notwithstanding each Operator complying with paragraph 4.8) any question arises as to how the Platform Operator is to carry out its functions under this Appendix 6, the Operators agree to discuss the question with a view to agreeing prior to giving any instruction to the Platform Operator in relation to such question.

5 Capacity Auction details

5.1 The Operators agree that Bundled IP Capacity in each System will be allocated in a single Auction (and in the case described in paragraph 3.9 in linked Auctions).

5.2 The Operators agree that the small price step in a Bundled Capacity Auction under an ascending clock algorithm shall be one fifth (1/5) of the large price step.

5.3 The Operators agree that the Auction Premium in any Bundled Capacity Auction will be shared between them as to one half (1/2) each.

5.4 For the purposes of Auctions, IP Capacity will be expressed in kWh/hour.

5.5 For the purposes of Auctions, the prices of IP Capacity will be expressed in both euro (€) and Pounds Sterling (£).

6 Bundled IP Capacity held by Shippers

6.1 If a Shipper submits to either Operator (A) a request that IP Capacity should be Bundled, and the request specifies the Direction and amount of the IP Capacity and the period for which it is to be Bundled, and Operator A would (under its Transportation Arrangements) accept the request, then:

(a) Operator A will send the request to the other Operator (B) within ten (10) Business Days after receiving the request from the Shipper;

(b) Operator B will notify Operator A whether Operator B (under its Transportation Arrangements) accepts the request, within 10 Business Days after receiving the request from Operator A;

(and each Operator confirms that, under its Transportation Arrangements, it is appointed as agent by its Shippers to send and receive such requests to or from the other Operator).

6.2 If a Shipper offers to surrender Bundled IP Capacity in one System, the offer will not be valid unless the Shipper offers to surrender equivalent Bundled IP Capacity in the other System.

6.3 The Operators agree that neither of them will notify the other of any Shipper ceasing (under either Operator's Transportation Arrangements) to hold Bundled IP Capacity in either System, and neither Operator will be required to adjust its record of the Bundled IP Capacity held by its Shippers on the basis of any such notification. Sections 6.3.2 and 6.3.3 of the European Interconnection Document of the uniform network code do not apply.

6.4 If either Operator gives notice to a Shipper holding Bundled IP Capacity in its System to terminate the Transportation Arrangements with the Shipper, the Operator shall inform the other Operator of such termination and of the amount of such Bundled IP Capacity held by the Shipper at the time of termination.

6.5 The Operators agree that transfers of Bundled Capacity will be transfer of use and OTC pursuant to the Platform Rules and Processes.

6.6 If either Operator (A) notifies the other Operator (B) that a Shipper holding Bundled IP Capacity in Operator A's System wishes voluntarily to terminate the Transportation Arrangements with Operator A with effect from a specified date, Operator B will inform Operator A whether Operator B objects to such termination on the grounds that the Shipper holds Bundled IP Capacity in Operator B's System on or after that date.

7 Coordination of Interruptible Capacity

7.1 The Operators agree that the minimum interruption lead times for interruptible capacity is 75 minutes before the hour bar from which such interruption is to be effective.

7.2 Each Operator shall inform the other Operator as soon as practicable after giving notice of interruption of interruptible capacity.

8 Capacity Optimisation Process / Analysis in relation to IP Capacity

8.1 The Operators shall meet once per year, in advance of the publication of the amount of IP Capacity to be made available in the annual Auction of yearly IP Capacity, to jointly analyse the technical IP Capacities in each System.

8.2 The analysis shall include a detailed comparison between the Operators of:

(a) technical IP Capacity in each System; and

(b) IP Capacity in each System available for allocation in each Auction (as described in paragraph 8.3).

8.3 Any differences shall be noted and quantified, and as much as possible, the reasons for differences should be identified and recorded. The analysis shall take account of assumptions made in the EU-wide 10 year development plan, existing national investment plans, relevant obligations under the applicable national laws, and any relevant contractual obligations.

8.4 The Operators shall also assess relevant parameters, including but not limited to: pressure commitments, relevant supply and demand scenarios, and calorific values. Options for adjusting these parameters will be discussed and examined. The Operators shall also have regard to information that Shippers may provide with regard to expected future flows. In addition, the relevant Operator's regulatory regime and obligations will be considered as part of this process.

8.5 Following completion of the analysis, the Operators will identify any potential steps and actions that can be taken to increase technical IP Capacity, and hence increase the offer of Bundled Capacity. For any action to increase technical IP Capacity proposed, then the effects of that action shall be considered, and shall include but not be limited to:

(a) under what timetable can the proposed action be implemented;

(b) are there any increased costs associated with the proposed action, and does the regulatory regime(s) allow for recovery of those costs (especially if there are any cross-subsidies between the Operators);

(c) does the benefit justify the cost; and

(d) are there any impacts, benign or detrimental, on other points on either System and stakeholders (terminal operators, Shippers, other TSOs etc).

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Document 1 ID	interwovenSite://UK-DMS/UK_ACTIVE/63464666/1
Description	#63464666v1<UK_ACTIVE> - Interconnection Agreement BBL-NationalGrid - version for Ofgem approval ...
Document 2 ID	interwovenSite://UK-DMS/UK_ACTIVE/64023408/1
Description	#64023408v1<UK_ACTIVE> - BBL-NGG Amended and Restated Interconnection Agreement - NGG Draft 27.03.19
Rendering set	Underline Strikethrough

Legend:	
Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	1017
Deletions	538
Moved from	422
Moved to	422
Style change	0
Format changed	0
Total changes	2399