

Interconnector (UK) Limited

Standard Transportation Agreement Summary

**(reflecting amendments up to and including Amendment 17 to the
Standard Transportation Agreement)**

Issue 07(i) dated November 2009

REVISION RECORD

Issue No.	Date	Remarks
01	25/11/02	Issued version incorporating the provisions of all Amendment Agreements up to and including Amendment Agreement No.9.
02	11/10/04	Issued version incorporating the provisions of all Amendment Agreements up to and including Amendment Agreement No.10.
03	8/11/05	Issued version incorporating the provisions of all Amendment Agreements up to and including Amendment Agreement No.15.
04	22/01/07	Issued version incorporating the provisions of all Amendment Agreements up to and including Amendment Agreement No.16, Transitional Arrangements currently in force and to reflect changes as a result of the completion of phases 1 & 2 of the Reverse Flow Enhancement.
05	01/11/07	Issued version incorporates changes as a result of completion of phase 3 of the Reverse Flow Enhancement
06	28/10/08	Includes revised 'flow transition rules' introduced by the 'Transitional Arrangements for Flow Transitions'
07(i)	03/11/09	Interim update incorporating Amendment Agreement No.17, including changes to 'flow transition rules', allocation 'rules' and forecasting provisions and the removal of the 'capping' process.

Background

The Interconnector commenced operations in October 1998, providing a physical link between the gas markets of Continental Europe (via a landfall in Belgium) and the UK. Physical and commercial operations of the transportation system are managed by Interconnector (UK) Limited.

The system may be configured to flow either from the UK to Belgium (Forward Flow) or from Belgium to the UK (Reverse Flow). The notional capacity of the original infrastructure (with compression facilities at Bacton only) was 20 billion cubic metres (bcm) per year in physical Forward Flow and 8.5 bcm per year in physical Reverse Flow. Compression facilities at Zeebrugge have been installed in two phases. The first phase increased the Reverse Flow capacity to 16.5 bcm per annum from November 2005; the second phase increased the Reverse Flow capacity to 23.5 bcm per annum from October 2006; and the third phase increased the Reverse Flow capacity to 25.5 bcm per annum from October 2007. The Forward Flow capacity remains at 20 bcm per annum.

The principal rights to capacity in the Interconnector are currently held by a total of some fifteen parties (known as IUK Shippers). Various arrangements are in place to enable third party access to capacity in the system, including the facility to sub-let capacity from IUK Shippers.

The commercial arrangements between Interconnector (UK) Limited and IUK Shippers are regulated via a 'Standard Transportation Agreement' and ancillary agreements. These agreements have been subject to a continual process of amendment and upgrading to reflect both the changing requirements of participants in the relevant gas markets and the desire to enhance the service on offer. The summary that follows is based on the latest amendments to the Standard Transportation Agreement and any 'transitional arrangements' currently in effect.

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1 Introduction

1.1 Purpose¹

The purpose of this document is to provide summary information about the service offered by **Interconnector (UK) Limited** ("IUK") to its **Shippers** as more particularly set out in the **Standard Transportation Agreement** (the 'STA') and the Standard Direct Access Agreement (the 'SDAA') both as amended from time to time.

For the avoidance of doubt, nothing in this document supersedes the provisions of the Standard Transportation Agreement, or the Standard Direct Access Agreement. IUK does not make any representation or warranty as to the accuracy or completeness of the information contained in this summary nor does it accept any liability resulting from the use of the information contained herein. IUK undertakes no obligation to update this summary nor to correct any inaccuracies herein which may become apparent.

1.2 Overview

The **Interconnector** comprises the IUK terminal facilities at the **Bacton** and **Zeebrugge Locations** and the 40" **Pipeline** which links the two.

The Pipeline is bi-directional, such that the physical **Flow Direction** can either be from Bacton to Zeebrugge, termed **Forward Flow**, or from Zeebrugge to Bacton, termed **Reverse Flow**. In Forward Flow, gas turbine driven compressors at Bacton are utilised, whereas in Reverse Flow, electric motor driven compressors at Zeebrugge are utilised.

At both Bacton and Zeebrugge the Interconnector may connect to one or more **Approved Transmission Systems ("ATS")**. Each of these connections, known as a **Connection Point**, may be a **Delivery Point** at which gas can be delivered (i.e. transferred from the ATS to the Interconnector) and/or a **Redelivery Point** at which gas can be redelivered (i.e. transferred from the Interconnector to the ATS).

The present **Standard Capacity** of the Interconnector is 20 billion cubic metres (bcm) per year in physical Forward Flow and 25.5 bcm per year in physical Reverse Flow.

1.3 Approved Transmission Systems (ATS)

At Bacton, the Interconnector is connected to two Approved Transmission Systems. The **NTS Connection Point** connects the Interconnector to the UK's transmission system, the **National Transmission System (NTS)**, operated by **National Grid Gas**. The **SILK Connection Point** connects the Interconnector to the **Seal Interconnector Link pipeline (SILK)**.

At Zeebrugge, the Interconnector is connected to a single Approved Transmission System. The **FTS Connection Point** connects the Interconnector to the Belgian transmission system, the **Fluxys Transmission System (FTS)**, operated by **Fluxys**.

1.4 Business Rules Overview

Each Shipper has rights to a share of the Standard Capacity within the Interconnector and, in addition to this capacity, to a share of any **Interruptible Capacity**.

The gas physically held within the Interconnector at any point in time is known as **Inventory**, and each Shipper is required to maintain its share of Inventory within individual **Inventory Limits**.

Shippers (and **ATS Shippers**) notify IUK of their gas flow requirements through the submission of **Matching Information**. The Matching Information is then used, subject to various business rules, to calculate a Shipper's **Nominations**.

¹ References to Override Agreement removed in Issue 07.

The **Scheduled Quantity** is the quantity of gas that IUK intends to flow on behalf of the Shipper, and is normally equal to the Nomination on which it is based. However, in the event of a **Constraint**² the Scheduled Quantity can be less than the Nomination³.

The flow of gas is metered at each Connection Point and **Gas Allocation** is the process of apportioning the gas to Shippers on the basis of their Scheduled Quantities. Shippers are required to supply, from their Inventory, their share of the **Fuel Gas** that is used by IUK.

The supply of **HV Electricity** to the Zeebrugge Terminal is metered and **Electricity Allocation** is the process of apportioning the **Compressor Electricity** (which is electricity used by the electric motors to power the compressors) to Shippers on the basis of their Scheduled Quantities. Shippers pay a **Monthly Electricity Charge** based on their allocated Compressor Electricity for the month.

As the Interconnector can operate in either Forward Flow or Reverse Flow, a **Pipeline Flow Transition** is required to change the physical Flow Direction of the Pipeline from either Forward Flow to Reverse Flow or from Reverse Flow to Forward Flow.

1.5 Physical and Commercial Operations⁴

1.5.1 Physical Operations

IUK or its agents carry out the day to day operation and maintenance of IUK's facilities at Bacton and Zeebrugge.

Both Locations are operated under instructions from **IUK Commercial Operations**, in particular the control of system flow rates. **Local Operating Procedures** are in place between IUK and the operators of the Approved Transmission Systems (**ATS Operators**).

1.5.2 Commercial Operations

Commercial operation of the system is a 24 hour a day/7 day a week function, managed from IUK's London offices and includes:

- receipt of Shippers' forecasts of gas quantities and gas quality;
- receipt and matching of Shippers' Matching Information;
- calculation and confirmation of Nominations for each Shipper;
- calculation of Scheduled Quantities for each Shipper;
- aggregation of Shippers' Scheduled Quantities and instruction of the various operators, including the issue of gas flow notices to ATS Operators;
- nomination of HV Electricity supply requirements;
- receipt of metering data;
- allocation of metered gas flows and allocation of Fuel Gas;
- monitoring and control of the Inventory within the Interconnector;
- allocation of Compressor Electricity;
- advice to Shippers of quantities and quality;
- incorporation of any metering corrections;
- communication with Shippers, ATS Operators and Matching Agents⁵; and
- billing of Shippers for their use of IUK's facilities.

² Constraints also include Inventory Constraints which are specific to an individual Shipper. See Section 7.5 "Inventory Constraints" for further information.

³ Reference to Capping Removed in Issue 07.

⁴ Section renamed in Issue 07.

⁵ See Section 5.1 "Matching: Introduction" or Appendix A for a definition of Matching Agent.

1.6 Time Zones

The two ends of the Interconnector are in different time zones, UK time (**UKT**) at Bacton and central European time (**CET**) at Zeebrugge. Shippers make their own commercial arrangements in the two time zones.

1.7 Interconnector Shippers' Information System

In order to efficiently manage the interface between IUK and Shippers, implement the business rules and manage the flow of gas through the Interconnector, IUK has developed a computer system known as the **Interconnector Shippers' Information System (ISIS)**, to which access is provided to all Shippers.

2 Capacity

2.1 Introduction

Each Shipper has rights to volumetric⁶ capacity in Forward Flow and/or Reverse Flow. An IUK Shipper's basic right to capacity is specified in that I(UK) Shipper's Standard Transportation Agreement and is known as **Primary Capacity**.

A Shipper's right to capacity from which they can deliver or redeliver gas is known as Standard Capacity, which is their Primary Capacity plus any capacity sublet or transferred to that Shipper minus any capacity sublet or transferred from that Shipper.

The physical capacity of the Interconnector depends upon a number of variables, most significantly the pressure differential between Bacton (determined by the NTS and SILK pressures) and Zeebrugge (determined by the FTS pressure).

Although in aggregate the **Prevailing Flow Direction** of the Pipeline is either Forward Flow or Reverse Flow, an individual Shipper can utilise their capacity in the opposite direction and may have a net position such that they are "flowing" in either the Prevailing Flow Direction or the opposite direction - the **Contra-Flow Direction**.

Subject to the physical Flow Direction of the Pipeline and operational conditions, IUK may make additional capacity (known as Interruptible Capacity) available to Shippers.

2.2 Standard Capacity

The aggregate Standard Capacity of the Interconnector, which is 20 bcm per year in Forward Flow and 25.5 bcm per year in Reverse Flow, is determined by a defined set of pressure conditions.

2.3 Interruptible Capacity

Interruptible Capacity comprises **Primary Interruptible Capacity** and/or **Secondary Interruptible Capacity**.

Any Interruptible Capacity in a specific Flow Direction that has been made available by IUK is apportioned to Shippers pro-rata to their Standard Capacity in that Flow Direction. Interruptible Capacity in either Flow Direction may be reduced or withdrawn on 2 hours notice.

2.3.1 Primary Interruptible Capacity

The maximum physical capacity of the Interconnector will vary according to the actual prevailing operating conditions, particularly the pressure at the Bacton NTS Connection Point and at the Zeebrugge FTS Connection Point. The pressure can vary at the NTS Connection Point from 45 to 70 barg and at the FTS Connection Point from 55 to 80 barg. The maximum physical capacity may therefore exceed the aggregate Standard Capacity, and this additional capacity may be made available as Primary Interruptible Capacity.

In addition, Primary Interruptible Capacity may be made available in the Contra-Flow Direction; the use of such capacity will reduce the overall requirement to flow gas in the Prevailing Flow Direction.

Maximum aggregate Primary Interruptible Capacity quantities are detailed in the table below:

⁶ The capacity available in energy terms will vary depending on the quality of the gas.

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	Maximum Primary Interruptible Capacity (bcm/y)	
	Forward Flow	Reverse Flow
NTS Delivery	3	3
NTS Redelivery	20	3
SILK Delivery	3	3
Bacton Delivery	3	3
Bacton Redelivery	20	3
FTS Redelivery	3 (+2 [§])	3
FTS Delivery	20	3
§2 can increase to allow FTS Catch Up following an earlier operational problem		

Primary Interruptible Capacity is made available by IUK (in the Prevailing Flow and/or Contra-Flow Directions) on a reasonable endeavours basis.

2.3.2 Secondary Interruptible Capacity

Based on the principle of "Use it or Lose it", capacity which is unused by one or more Shippers may be made available by IUK, on a reasonable endeavours basis, to other Shippers, with a requirement in excess of their entitlement to capacity, using the mechanism of **Secondary Interruptible Capacity**.

2.4 IUK Shippers and Sub-Let Shippers

There are two types of Shippers who may hold capacity within the Interconnector. An **IUK Shipper** is a signatory to the Standard Transportation Agreement and therefore has a direct contractual relationship with IUK. A **Sub-Let Shipper** is a Shipper who has acquired capacity for a period of time from an IUK Shipper. A Sub-Let Shipper is not a signatory to the Standard Transportation Agreement and the IUK Shipper from whom they have acquired capacity remains liable to IUK for the use of the Sub-Let Capacity.

For the majority of this document, and in respect of the management of and commercial operating procedures relating to Interconnector capacity, there is no difference between IUK Shippers and Sub-Let Shippers; and therefore the term 'Shipper' is generally used. There is, however, a distinction between IUK Shippers and Sub-Let Shippers with respect to the rights and obligations that accompany their entitlement to use capacity. This distinction reflects the difference in the contractual framework that applies to the two categories of Shipper.

2.5 Primary, Sub-Let, Transferred and Available Capacity

Primary Capacity is an IUK Shipper's basic right to Standard Capacity within the Interconnector that was either acquired from IUK prior to 1 October 1998 or as part of a subsequent enhancement process; or, was acquired subsequently from another IUK Shipper, through an **Assignment**. Primary Capacity can be traded through an Assignment to an IUK Shipper or to a non-IUK Shipper (who will then become an IUK Shipper).

Sub-Let Capacity is any capacity that has been Sub-Let from an IUK Shipper to a non-IUK Shipper (such party then becomes a Sub-Let Shipper) for a specified period of time. From the perspective of the IUK Shipper, the Sub-Let Capacity reduces their Standard Capacity, and from the perspective of the Sub-Let Shipper the Sub-Let Capacity increases their Standard Capacity.

Transferred Capacity is capacity that has been transferred for a specified period of time from an IUK Shipper to another IUK Shipper. From the perspective of the IUK Shipper who is providing capacity, the Transferred Capacity reduces their Standard Capacity. From the perspective of the IUK Shipper who is receiving capacity, the Transferred Capacity increases their Standard Capacity.

Standard Capacity is made up of Primary, Sub-Let and Transferred Capacity such that:

- an individual IUK Shipper's Standard Capacity equals their Primary Capacity plus any Transferred Capacity that has been received from other IUK Shippers less any Transferred Capacity that has been transferred to other IUK Shippers less any Sub-Let Capacity that has been Sub-Let to Sub-Let Shippers; and
- an individual Sub-Let Shipper's Standard Capacity equals the Sub-Let Capacity that they have received from one or more IUK Shippers.

Only Primary Capacity can be Sub-Let or Transferred.

Available Capacity is the amount of residual Primary Capacity that an IUK Shipper has available to Sub-Let or Transfer (taking account of all existing Sub-Lets and **Capacity Transfers**).

Any transfer of Standard Capacity (through a Capacity Transfer or Sub-Let) will include associated rights to Primary and Secondary Interruptible Capacity that may be made available by IUK.

2.6 Capacity Assignment and Pooling

IUK Shippers may make their own arrangements to:

- assign their Primary Capacity (assignee takes the place of the assignor)
- sub-let their Primary Capacity (the sub-letting IUK Shipper remains responsible to IUK but the Sub-Let Shipper is granted access to use of the capacity)

In addition, any IUK Shippers wishing to dispose of small quantities of unused Standard Capacity may notify IUK by letter, who will then use reasonable endeavours to find a qualifying purchaser under a pooling system.

Any transfer of Standard Capacity (through assignment or pooling) will include associated rights to Primary and Secondary Interruptible Capacity that may be made available by IUK.

2.7 Capacity Sub-Lets to new Sub-Let Shippers

An IUK Shipper ("Sub-Lessor") may sub-let Standard Capacity (together with the associated Interruptible Capacity) to another party who is neither an IUK Shipper nor an existing Sub-Let Shipper ("Sub-Lessee"), subject to the IUK Shipper having sufficient Available Capacity and subject to the IUK Shipper and the Sub-Let Shipper jointly giving one month's written notice (which may, in favourable circumstances, be reduced further by IUK) confirming that:

- the rights to Standard Capacity acquired by the Sub-Let Shipper are not less than 11,000Nm³/h Forward Flow Capacity and/or not less than 11,000Nm³/h Reverse Flow Capacity;
- the duration of the Sub-Let is not less than 1 day; and
- the cost of the ISIS connection, certain 'operational costs', the provision of equipment and of personnel training etc. will be borne by the Sub-Let Shipper. The IUK Shipper will assume responsibility if such costs are not reimbursed by the Sub-Let Shipper.

In conjunction with the Sub-Let of capacity, the appropriate quantity of Operating Inventory will also transfer from the Sub-Lessor to the Sub-Lessee. The transfer of capacity and inventory will be reversed at the end of the sub-let period.

The liabilities and warranties of the IUK Shipper to IUK under the STA remain the responsibility of the IUK Shipper, who may seek "back to back" arrangements with the new Sub-Let Shipper. An administration fee is not payable for capacity that is Sub-Let to a new Sub-Let Shipper.

A proforma contract, developed by IUK Shippers, is available to regulate the arrangements between the IUK Shipper and the new Sub-Let Shipper, should the parties wish to use it. This contract is available on the IUK website.

A new Sub-Let Shipper will be required to sign up to the **ISIS User Agreement** which regulates access and use of ISIS. IUK will then provide the new Sub-Let Shipper with access to ISIS. For 'operational purposes' the new Sub-Let Shipper will be treated similarly to an IUK Shipper, in respect of the capacity which has been sub-let by that new Sub-Let Shipper.

2.8 Capacity Sub-Lets to existing Sub-Let Shippers

An IUK Shipper (the "Sub-Lessor") may sub-let Standard Capacity (together with the associated Interruptible Capacity) to an existing Sub-Let Shipper (the "Sub-Lessee") by both parties agreeing to a Sub-Let at least 2 whole hours prior to the commencement of such Sub-Let and subject to the IUK Shipper having sufficient Available Capacity. The minimum period for a Sub-Let to an existing Sub-Let Shipper is one hour and there is no minimum quantity requirement.

In conjunction with the Sub-Let, the appropriate quantity of Operating Inventory will transfer from the Sub-Lessor to the Sub-Lessee.

The liabilities and warranties of the IUK Shipper to IUK under the STA remain the responsibility of the IUK Shipper, who may seek "back to back" arrangements with the Sub-Let Shipper. An administration fee is payable by the Sub-Lessor for capacity that is Sub-Let to existing Sub-Let Shippers (subject to a minimum and a maximum charge).

The proforma contract, mentioned above, may also be used for such sub-lets.

2.9 Capacity Transfers

An IUK Shipper (the "Transferor") may transfer Standard Capacity (together with the associated Interruptible Capacity) to another IUK Shipper (the "Transferee") by both parties agreeing to a Capacity Transfer at least 2 whole hours prior to the commencement of such Capacity Transfer. The minimum period for a Capacity Transfer is one hour and there is no minimum quantity requirement.

In conjunction with the Capacity Transfer, the appropriate quantity of Operating Inventory will transfer from the Transferor to the Transferee.

The Transferor will remain responsible for paying the tariff in respect of the capacity transferred. An administration fee is payable by the Transferor per transfer, based on the capacity transferred (subject to a minimum and a maximum charge).

A pro forma contract for Capacity Transfers regulating the arrangements between the Capacity Transferor and the Capacity Transferee has been developed by IUK Shippers and is available for use, if so desired. The contract is available on the IUK website.

2.10 Bulletin Board

To help facilitate the process of Sub-Lets and Capacity Transfers, a **Bulletin Board** is available on ISIS that allows Shippers to advertise available capacity or a requirement for capacity. Capacity notices posted on the Bulletin Board can also, at the request of the publishing Shipper, be published on IUK's public web site. It is also possible to advertise Inventory transactions using the Bulletin Board⁷.

⁷ See Section 10.3 "Inventory Transfers" for further information.

3 Quality Requirements and Operating Conditions

3.1 Introduction

Shippers must supply gas within agreed quality and operating specifications, and IUK has the right to refuse to accept any gas that does not meet the specifications.

3.2 Quality Requirements

Gas made available by a Shipper at a Delivery Point shall comply with the following quality requirements:

	Unit	Minimum	Maximum
Gross Calorific Value ^(a)	kWh/Nm ³	10.81 ^(b)	12.39
Wobbe Index ^(a)	kWh/Nm ³	13.82 ⁸	15.07
Hydrocarbon Dew Point	°C from 1 barg up to 69 barg		minus 2
Water Dew Point	°C at 69 barg		minus 10
Oxygen content	ppm by vol.		1000
Carbon Dioxide content	Mole %		2.5
Hydrogen Sulphide content (inclusive of COS)	ppm by vol.		3.3
Total Sulphur at any time	mg/m ³		30
Notes			
(a) Combustion reference temperature 15 °C			
(b) Subject to an I(UK) Shipper's reasonable endeavours to provide gas at a minimum of 10.94 kWh/Nm ³ at the Delivery Point			

In addition to the above, gas made available by a Shipper at a Delivery Point shall comply with the requirements of GSMR in respect of Hydrogen Content, the Incomplete Combustion Factor, Soot Index and 'impurities'.

3.3 Operating Conditions Requirements

Gas made available by a Shipper at a Delivery Point shall comply with the following:

	Unit	Minimum	Maximum
Required pressure at the NTS and SILK Delivery Points	barg	45.0 ^(c)	70.0
Required pressure at the FTS Delivery Point	barg	55.0	80.0
Required temperature at the NTS and SILK Delivery Points	°C	1	28 ^(d)
Required temperature at the FTS Delivery Point	°C	2	38
Notes			
(c) See Section 3.5 "Bacton Delivery Pressure"			
(d) The maximum temperature for offtake at SILK is 20 °C			

⁸ Reduced from 14.14 to 13.82 in Issue 07.

3.4 Off-Specification Gas

IUK has the right to refuse to accept gas made available by a Shipper at a Delivery Point and has the right to suspend delivery of such gas if it does not comply with the quality requirements and operating conditions. However, IUK will use reasonable endeavours to accept such gas if it is satisfied that neither IUK nor other Shippers would be adversely affected by such action.

In the event that a Shipper's deliveries are suspended, the flow of gas at the Redelivery Point(s) for such Shipper will be curtailed if that Shipper reaches its individual Inventory Limit. Redeliveries for a Shipper who has been curtailed will be resumed as soon as that Shippers' individual inventory has been restored. It should be noted that if a single Bacton Delivery Point is affected, this may cause interruption to flow at the other Bacton Delivery Point⁹.

3.5 Bacton Delivery Pressure

An elevated pressure service has been agreed with National Grid Gas to allow Shippers to deliver gas from the NTS at a minimum pressure of 45 barg, when the Prevailing Flow Direction is Forward Flow. Under the agreement, IUK advises National Grid Gas of the pressure required at the NTS Connection Point (normally in the range 45 to 55 barg) and National Grid Gas makes gas available at that pressure.

The cost of the providing this elevated pressure service is charged to IUK, who in turn apportions it to Shippers.

⁹ See Section 7.5 "Inventory Constraints" for further information.

4 Estimates and Forecasts¹⁰

4.1 Information to be provided by Shippers

Each Shipper shall keep IUK informed of any relevant and available forecasts of flow and of gas quality, in particular, Gross Calorific Value and Wobbe Index.

Shippers shall advise IUK, if, at any time, gas to be made available at a Delivery Point is expected to be non-compliant, with respect to any of the gas quality parameters listed below:

- Hydrogen Sulphide content (inclusive of Carbonyl Sulphide (COS)) in ppm by vol;
- Total Sulphur content measured as hydrogen sulphide in ppm by vol;
- Carbon Dioxide content in mole %;
- Oxygen content in ppm by vol;
- Water dew point in degrees Celsius at 69 barg;
- Content in mole % of any other component; and
- Maximum hydrocarbon dew point in degrees Celsius between 1 and 69 barg.

4.2 Information to be provided by IUK

IUK shall keep Shippers reasonably informed of activities related to the Transportation System and provide any other information relevant to the provision of transportation services.

Based on historical data and any other relevant and available information, IUK shall provide, in each month, a forecast of the expected Gross Calorific Value and Wobbe Index of the commingled output stream(s) for the following month.

¹⁰ Section redrafted in Issue 07.

5 Matching

5.1 Introduction

The **Matching Process** ensures that the gas transportation requirements of the Shippers and ATS Shippers are agreed prior to the generation of a Nomination. IUK Shippers provide their gas flow requirements (Matching Information) directly to IUK, and ATS Shippers provide their Matching Information either directly to IUK or via a **Matching Agent**.

5.2 Hourly, Daily and Weekly Matching Information

Hourly Matching Information comprises Matching Information for an individual hour, and is specific to a Connection Point and Flow Direction (either Delivery or Redelivery).

Daily Matching Information is the summation of Hourly Matching Information for each hour within a Gas Day.

Weekly Matching Information enables a Shipper to enter Matching Information for an entire Gas Week, and therefore comprises Daily Matching Information for each day within a Gas Week.

5.3 Weekly Matching

Shippers may submit to IUK their Weekly Matching Information not later than 10:00 hours UKT on the Friday preceding each Gas Week and not earlier than 06:00 hours UKT on the Monday preceding each Gas Week.

5.4 Daily Matching

Shippers should submit to IUK their Daily Matching Information not later than 13:00 hours UKT on the day immediately preceding the Gas Day (the **Shipper D-1 Deadline**) and not earlier than 10:00 hours UKT on the Friday of the preceding Gas Week. Shippers may submit to IUK new or revised Daily Matching Information after the Shipper D-1 Deadline up until 03:00 hours UKT on the Gas Day. Matching Information must be provided with at least two whole hours notice.

Daily Matching Information is used to generate Hourly Matching Information.

5.5 Hourly Matching

Shippers may submit to IUK Hourly Matching Information after the Shipper D-1 Deadline. Any change to Hourly Matching Information will be reflected in the appropriate Daily Matching Information.

5.6 Matching Process

The Matching Process compares the Hourly Matching Information¹¹ provided by the Shipper with that provided by the ATS Shipper. The Matching Process is carried out whenever new or revised Hourly Matching Information is submitted, and results in:

- Hourly Matching Information submitted but is awaiting corresponding data from the appropriate counterparty (**Unmatched**); or
- Hourly Matching Information submitted by the two parties corresponds, but contains different quantities (**Partially Matched**); or
- Hourly Matching Information submitted by the parties corresponds exactly (**Fully Matched**).

In the event of Hourly Matching Information being Unmatched or Partially Matched, Shippers should communicate with their ATS Shipper counterparty in order to correct the mismatch.

¹¹ Note, Hourly Matching Information can be supplied as Daily Matching Information or Weekly Matching Information

Daily Matching Information (which is the summation of the appropriate Hourly Matching Information) can also be Unmatched, Partially Matched or Matched. In the event that the status of the constituent Hourly Matching Information varies throughout the Gas Day, the status of the Daily Matching Information is deemed to be the worst-case status of the constituent Hourly Matching Information.

Hourly Matching Information that is Fully Matched or Partially Matched is used as the basis for creating the Shippers' Hourly Nominations¹². In the event that Hourly Matching Information is Partially Matched:

- at the SILK and FTS Connection Points, the "**Lesser of**" Rule will be applied in that the lesser of the two quantities shall be used in the generation of an Hourly Nomination for that Shipper
- at the NTS Connection Point, the Shipper's quantity shall be used in the generation of an Hourly Nomination for that Shipper (unless an NTS Constraint is in force and the "Lesser of" Rule has been invoked by the NTS Matching Agent, in which case the lesser of the two quantities shall be used)

For a specific hour, Connection Point and Flow Direction a Shipper may have more than one set of Hourly Matching Information.

5.7 Shipper ID Codes

To maintain confidentiality all Shippers referred to in Matching Information are represented by unique **Shipper ID Codes**, which may be changed from time to time.

5.8 Fuel Gas and GCV

IUK will provide Shippers with an estimate of the Fuel Gas requirement for each Gas Day, such that Shippers can estimate their own delivery requirements in order to satisfy both their redelivery requirements and their Fuel Gas requirements. On a monthly basis¹³, IUK advise the Gross Calorific Value that is used to check that the rights of Shippers to Standard Capacity and Interruptible Capacity have not been exceeded¹⁴.

¹² See Section 6.1 "Nominations: Introduction" or Appendix A for a definition of Hourly Nomination.

¹³ Gross Calorific Value provision simplified in Issue 07.

¹⁴ Gross Calorific Value (kWh/Nm³) is required to convert capacity from a volume basis (Nm³/h) to an energy basis (kWh)

6 Nominations

6.1 Introduction

A Shipper's **Hourly Nomination** is created from their Fully Matched and Partially Matched Hourly Matching Information, and, like Hourly Matching Information, an Hourly Nomination is specific to an individual hour, Connection Point and Flow Direction (delivery or redelivery). A Shipper's **Daily Nomination** is the summation of their appropriate Hourly Nominations within the Gas Day.

A **Delivery Nomination** (Hourly or Daily) is a quantity of natural gas to be delivered to the Interconnector at a Delivery Point, with the ownership of the gas transferring from the ATS Shipper to the Shipper. A **Redelivery Nomination** (Hourly or Daily) is a quantity of natural gas to be redelivered from the Interconnector at a Redelivery Point, with the ownership of the gas transferring from the Shipper to the ATS Shipper.

An individual Shipper can have up to five Hourly Nominations for any hour as follows:

- Hourly Delivery Nomination at the SILK Connection Point
- Hourly Delivery Nomination at the NTS Connection Point
- Hourly Redelivery Nomination at the NTS Connection Point
- Hourly Delivery Nomination at the FTS Connection Point
- Hourly Redelivery Nomination at the FTS Connection Point

A Shipper's **Hourly Net Nomination** at a Connection Point or Location is the difference between their Hourly Delivery Nominations and Hourly Redelivery Nominations at that Connection Point or Location. A Shipper's **Daily Net Nomination** at a Connection Point or Location is the difference between their Daily Delivery Nominations and Daily Redelivery Nominations at that Connection Point or Location.

6.2 Nomination Priorities

A Nomination (Hourly or Daily) may be subdivided into more than one **Tranche**: Firm, Reasonable Endeavours (RE) and Interruptible. A **Firm Nomination** (Hourly or Daily) refers to the Firm component of a Nomination, a **RE Nomination** (Hourly or Daily) refers to the RE component of a Nomination, and an **Interruptible Nomination** (Hourly or Daily) refers to the Interruptible component of a Nomination.

Nomination Component	Description
Firm	IUK is contractually obliged to transport the quantity of gas in the Firm Nomination.
Reasonable Endeavours (RE)	IUK will make reasonable endeavours to transport the quantity of gas in the RE Nomination. IUK is not obliged to accept increases to an RE Nomination if IUK, in its discretion, considers that this would prejudice the transportation of gas within a Firm Nomination.
Interruptible	The Shipper is making use of Interruptible Capacity, which may be made available. IUK will make reasonable endeavours to transport the quantity of gas in the Interruptible Nomination and Interruptible Capacity can be removed at short notice by IUK.

At all Connection Points, allocation is based on the overall Hourly Nomination i.e. Firm, RE and Interruptible Nominations are all allocated with equal priority¹⁵. If, however, an 'IUK Within Day Constraint' (see section 7.3.2 below) is being applied, individual Shipper allocations will be affected according to the nomination priority.

¹⁵ Section simplified to reflect Prioritised Allocation at both Bacton and Zeebrugge in Issue 07.

6.2.1 Firm Nominations¹⁶

Hourly Nominations for a Gas Day will be **Firm Nominations**, provided they:

- are derived from Matching Information received before 14:00 hrs UKT (the **D-1 Deadline**) for that Gas Day;
- are less than or equal to (when expressed as an Hourly Net Nomination) the Shipper's relevant Standard Capacity for that hour;
- are for transportation of gas as opposed to storage;
- do not (when expressed as a Daily Net Nomination) represent an increase equivalent to more than 50% of the Shipper's relevant Daily Standard Capacity compared with the Shipper's Firm Nominations (when expressed as a Daily Net Nomination) for the previous Gas Day at the D-1 Deadline for that Gas Day (and ignoring any decreases to Nominations made after that time).

6.2.2 Reasonable Endeavours Nominations¹⁷

Hourly Nominations which make use of Standard Capacity, but which are not Hourly Firm Nominations shall be Reasonable Endeavours Nominations.

6.2.3 Interruptible Nominations

Hourly Nominations (when expressed as a Net Nomination) at a Location or Connection Point that are in excess of the Shipper's **Hourly Standard Capacity** (but not in excess of that Shipper's Hourly Standard plus **Hourly Interruptible Capacity**) shall be Interruptible Nominations.

6.3 Capacity Validation

A Shipper cannot have Hourly Nominations (when expressed as a Net Nomination) at a Location or Connection Point that are in excess of the sum of the Shipper's Hourly Standard plus Hourly Interruptible Capacity. If this occurs, **Restricted Hourly Nominations** are calculated for that Shipper such that their Restricted Hourly Nominations (when expressed as a Net Nomination) do not exceed their capacity.

A Restricted Hourly Nomination will always take precedence over the Hourly Nomination on which it is based.

¹⁶ References to Pipeline Flow Transitions and Inventory Transitions removed in Issue 07.

¹⁷ Reference to Pipeline Flow Transitions removed in Issue 07.

7 Scheduled Quantities and Constraints¹⁸

7.1 Introduction

Scheduled Quantities are the quantities of gas that IUK intends to flow on behalf of a Shipper.

A Constraint is a temporary reduction in the available capacity at a Connection Point or Location due to a problem either with the Interconnector, an ATS, or due to a Shipper breaching (or being about to breach) their Inventory Limits.

7.2 Scheduled Quantities

A Shipper's **Hourly Scheduled Quantity** is created from their Hourly Nomination, and like an Hourly Nomination a Scheduled Quantity is specific to an individual hour, Connection Point and Flow Direction (Delivery or Redelivery). A Shipper's **Daily Scheduled Quantity** is the summation of their appropriate Hourly Scheduled Quantities within the Gas Day. Like Nominations, a Scheduled Quantity (Hourly and Daily) may contain Firm, RE and Interruptible Tranches.

Under normal circumstances, a Shippers' Hourly Scheduled Quantities equals the Hourly Nominations for that Shipper. However, it may not be possible for IUK to meet a Shipper's Hourly Nominations, due to:

- a flow Constraint in either the Interconnector or an Approved Transmission System; or
- an Inventory Constraint that is applied to the Shipper to keep them within their Inventory Limits.

In either of the above circumstances, the Hourly Scheduled Quantities for a Shipper may be less than the Hourly Nominations for that Shipper.

A Shipper's **Hourly Net Scheduled Quantity** at a Connection Point or Location is the difference between their Delivery Hourly Scheduled Quantities and Redelivery Hourly Scheduled Quantities at that Connection Point or Location. A Shipper's **Daily Net Scheduled Quantity** at a Connection Point or Location is the difference between their Delivery Daily Scheduled Quantities and Redelivery Daily Scheduled Quantities at that Connection Point or Location.

7.3 Interconnector (IUK) and Approved Transmission System (ATS) Constraints

An **IUK Ahead of Day Constraint** may reduce Hourly Nominations in the Prevailing Flow Direction. All other types of IUK and **ATS Constraints** may reduce Hourly Scheduled Quantities.

7.3.1 IUK Ahead of Day Constraint

If an Interconnector reduction in capacity for a Gas Day is notified to Shippers before 12:00 hours UKT on the previous Gas Day, then each Shipper's Standard Capacity at both the Bacton and Zeebrugge Locations will be temporarily reduced pro rata for the duration of the Constraint. This type of Constraint is referred to as an IUK Ahead of Day Constraint.

As an IUK Ahead of Day Constraint reduces a Shipper's Standard Capacity at the Bacton and Zeebrugge Locations, Hourly Nominations for all Shippers are recalculated when an IUK Ahead of Day Constraint is applied. This means that a Shipper's Hourly Nomination(s) during the period of the constraint could change as a result of the IUK Ahead of Day Constraint.

In addition, during an IUK Ahead of Day Constraint, any Interruptible Capacity that may have been made available by IUK in the Flow Direction of the Constraint will be withdrawn. The withdrawal of any Interruptible Capacity will result in the Hourly Nominations for all Shippers being recalculated and any Hourly Interruptible Nominations will be reduced to zero.

¹⁸ Reference to capping removed in Issue 07.

IUK will advise Shippers as soon as practicable when the capacity of the Interconnector returns to normal.

7.3.2 IUK Within Day Constraint

If a reduction in Interconnector Capacity for a Gas Day is notified to Shippers after 12:00 hours UKT on the previous Gas Day, then the Constraint is applied through a reduction in Shippers' Hourly Scheduled Quantities. This type of Constraint is referred to as an **IUK Within Day Constraint**, and such a Constraint may be applied to an individual Location or Connection Point and separate IUK Within Day Constraints may, in exceptional circumstances, be applied simultaneously to different Locations and/or Connection Points.

IUK Within Day Constraints are applied to Hourly Scheduled Quantities (when expressed as an Hourly Net Scheduled Quantity) at the Location or Connection Point according to tranche priorities, such that **Interruptible Hourly Scheduled Quantities** are reduced first, then **RE Hourly Scheduled Quantities** and finally **Firm Hourly Scheduled Quantities**.

IUK will advise Shippers as soon as practicable when the capacity of the Interconnector returns to normal.

7.3.3 Approved Transmission Systems (ATS) Constraints

If an ATS Operator notifies IUK of a constraint affecting the rate at which gas may be offtaken from, or redelivered to, that ATS then IUK will reduce its rate of offtake or redelivery accordingly. This information will be passed on to Shippers as soon as reasonably practicable. Similarly, if, in response to Shippers' Nominations, IUK notifies an ATS Operator of an increase in the rate of offtake or redelivery and that notification is rejected, IUK will deem this to be an ATS Constraint and IUK will limit its rate of offtake or redelivery.

ATS Constraints are applied to Hourly Scheduled Quantities (when expressed as an Hourly Net Scheduled Quantity) at the relevant Connection Point according to Tranche priorities, such that Interruptible Hourly Scheduled Quantities are reduced first, then RE Hourly Scheduled Quantities and finally Firm Hourly Scheduled Quantities. This means that any Shipper who has an Hourly Net Scheduled Quantity at the Connection Point in the same Flow Direction as the ATS Constraint may have such Hourly Scheduled Quantity reduced (e.g. a Forward Flow NTS Constraint is applied to NTS Delivery Hourly Scheduled Quantities).

7.4 Inventory Constraints

If a Shipper is in breach (or is forecast to be in breach) of its maximum or minimum Inventory Limits and IUK takes action to constrain its deliveries (or redeliveries, as the case may be), the Inventory Constraint will be applied through a reduction in the Shipper's relevant Hourly Scheduled Quantities. The Shipper will be advised of the relevant Hourly Scheduled Quantities, which will be less than its relevant Hourly Nominations, and the Hourly Scheduled Quantities will be flagged as having been Inventory Constrained.

7.5 Minimum Aggregate Net Flow

If the aggregate of all Shippers' Hourly Scheduled Quantities (when expressed as an Hourly Net Scheduled Quantity):

- at a Connection Point would require a physical flow below the minimum rate of the measurement facilities at that Connection Point; and/or
- at a Location, when the compression facilities are being utilised at that Location, would require a physical flow below the minimum rate of the compression facilities

then IUK will use reasonable endeavours to offtake or redeliver intermittently at an instantaneous rate at, or above, the minimum rate, subject to gas being made available or being offtaken by Shippers at the same instantaneous rate. If IUK is unable to arrange to offtake or redeliver gas intermittently at or above the required minimum rate, then IUK will request Shippers to submit revised Matching Information (and arrange for the ATS Shipper Matching Information to be revised), such that the aggregate of Shippers' Hourly Scheduled Quantities

(when expressed as an Hourly Net Scheduled Quantity) will require a physical flow at, or above, the minimum rate.

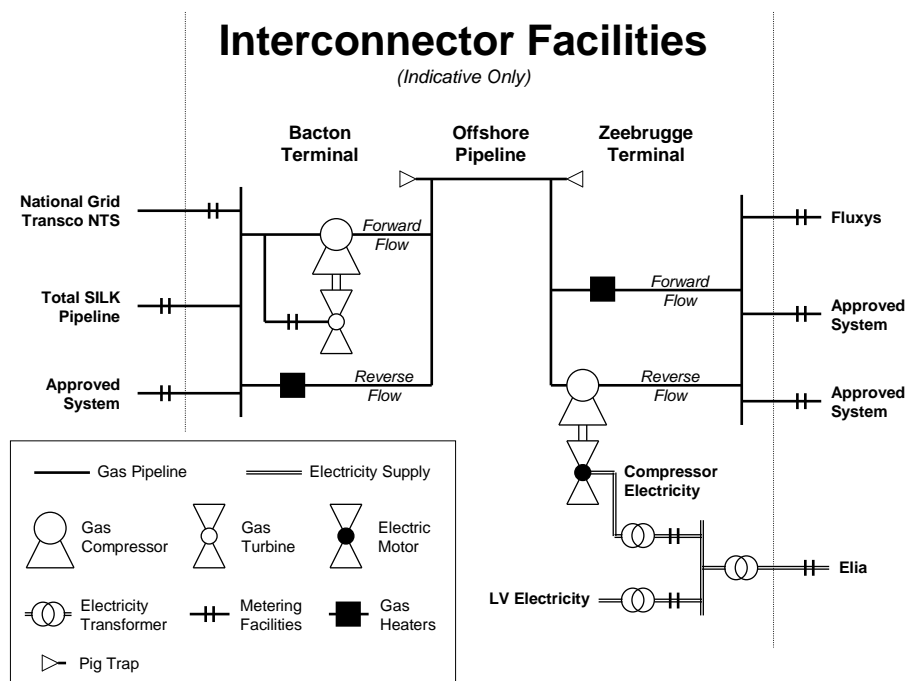
8 Measurement

8.1 Introduction

The flow of gas is measured at all Connection Points at Bacton and at Zeebrugge. The flow of gas at Bacton to and from the NTS is measured by facilities owned and operated by IUK. The flow of gas at Bacton from SILK (Forward Flow) is measured by facilities owned and operated by Shell. The flow of gas at Zeebrugge to and from the FTS is measured by facilities owned and operated by Fluxys.

The consumption of electricity is measured at Zeebrugge. The consumption of HV Electricity supplied to the Zeebrugge Terminal is measured by facilities owned and operated by **Elia**. The consumption of Compressor Electricity (the amount of the HV Electricity that is consumed by the electric motors that power the compressors) is measured by facilities owned and operated by IUK. The consumption of **LV Electricity** (the amount of the HV Electricity that is consumed by electrical equipment other than the electric motors that power the compressors) is measured by IUK.

The following diagram provides a summary of the Interconnector facilities:



8.2 Bacton Measurement Facilities

8.2.1 NTS Connection Point

The gas measurement facilities operated by IUK comprise:

- six orifice meter runs;
- two on-line chromatographs; and
- two hydrocarbon dew point analysers.

The minimum flow rate of the NTS Connection Point metering facilities is 115,000 Nm³/hr.

8.2.2 SILK Connection Point

The gas measurement facilities operated by Shell comprise:

- two ultra-sonic meter runs; and

- two on-line chromatographs.

The gas measurement facilities operated by IUK comprise:

- one on-line chromatograph.

The minimum flow rate of the SILK Connection Point metering facilities is 115,000 Nm³/hr.

Shippers are responsible for ensuring (via their SILK counter-parties) that the operator of SILK makes available to IUK the necessary flow and gas quality measurements at SILK.

8.2.3 Commingled Stream (Bacton)

The gas measurement facilities operated by IUK comprise:

- one on-line chromatograph; and
- two hydrocarbon dew point analysers.

The minimum flow rate at Bacton varies depending on operating conditions.

8.3 Zeebrugge Measurement Facilities

8.3.1 FTS Connection Point

The gas measurement facilities operated by Fluxys comprise:

- eight double turbine meter runs;
- four on-line chromatographs; and
- one hydrocarbon dew point analyser.

The minimum flow rate of the FTS Connection Point metering facilities is 10,000 Nm³/hr.

Shippers are responsible for ensuring (via their FTS counterparties) that Fluxys makes available to IUK the necessary flow and gas quality measurements at Zeebrugge.

8.4 Fuel Gas Measurement at Bacton and Zeebrugge

The Fuel Gas measurement facilities at Bacton comprise four orifice meter runs, one for each compressor gas turbine driver. The Fuel Gas consumption for the boilers is minimal and is estimated.

The Fuel Gas consumption at Zeebrugge for the water bath heaters is minimal and is estimated.

8.5 Electricity Measurement at Zeebrugge

The electricity measurement facilities operated by Elia comprise:

- two 148 kV quadrant meters

The electricity measurement facilities operated by IUK comprise:

- four 36kV quadrant meters; and
- two 11 kV quadrant meters.

8.6 Measurement Differences at Bacton and Zeebrugge

The gas and electricity measurement facilities are regularly calibrated by the relevant operators, to ensure that they remain within the specified tolerance. Where a retrospective correction is deemed to be necessary, special rules apply.

9 Gas and Electricity Allocation¹⁹

9.1 Introduction

Gas Allocation is the process by which gas is apportioned between Shippers. It is carried out and advised to Shippers every hour²⁰ during the Gas Day and may be adjusted after the Gas Day to account for end of day steering. Gas Allocation calculations are performed separately for each Flow Direction (**Delivery Allocation** and **Redelivery Allocation**) at each Connection Point.

Gas Allocation at a Connection Point consists of:

- measuring physical deliveries (or redeliveries) of gas;
- identifying Hourly Scheduled Quantities for Delivery and for Redelivery for each Shipper;
- accounting for quantities provided from or to any Operational Balancing Agreement ('OBA') which is in use at that Connection Point;
- accounting for any 'steering difference' which arises (the difference between the required physical flow and the actual physical flow at that Connection Point, to the extent that such difference cannot be dealt with by an OBA);
- deeming Hourly Scheduled Quantities in the Contra-Flow Direction to be met in full; and
- deeming Hourly Scheduled Quantities in the With-Flow Direction to be met in full, subject to any 'steering difference'.

Where a Shipper has Hourly Scheduled Quantities in both Flow Directions at the same time, they are treated separately for allocation purposes (even if they are at the same Connection Point).

Electricity Allocation is the process by which Compressor Electricity is apportioned between Shippers. It is carried out and advised to Shippers every hour during the Gas Day.

9.2 Gas Allocation at Bacton Connection Points

Each Shipper's share of gas flow is calculated in relation to their total (i.e the sum of their Firm, RE and Interruptible) Hourly Scheduled Quantities. Under normal operational circumstances, Shippers will be allocated their Scheduled Quantities in full in the contra-flow direction and to within a close tolerance of the exact amount required in the with-flow direction. The only circumstances when this may not be the case are:

- When a constraint applies
- When there is equipment failure resulting in a significant shortfall in actual physical deliveries/redeliveries compared to the commercial requirement across a gas day (and when a constraint may or may not be applied)
- When there is a significant late nomination change by a Shipper or Shippers resulting in a requirement across the gas day which cannot physically be met

Any shortfall or excess delivery/redelivery, across a gas day, will be apportioned to all Shippers according to relevant Total Scheduled Quantities.

9.3 Gas Allocation at Zeebrugge Connection Points

There are two Gas Allocation methods, which may be carried out at the Zeebrugge Connection Point:

- Operational Balancing Agreement Allocation; and/or
- Proportional Allocation

The normal method of Gas Allocation at Zeebrugge uses the Operational Balancing Agreement. Exceptionally, a Gas Day may be allocated proportionally.

¹⁹ Section redrafted in Issue 07.

²⁰ Inventory calculations are carried out every 15 minutes.

9.3.1 Operational Balancing Agreement at Zeebrugge

The **Operational Balancing Agreement** at Zeebrugge provides a mechanism at the FTS Connection Point to allow allocated deliveries (or redeliveries) to match the corresponding Hourly Scheduled Quantities. Gas is borrowed from a notional balancing "pool" of gas to supplement physical flow or paid back to the "pool" when flow is in excess of the aggregate Hourly Scheduled Quantities.

A Gas Day may be reallocated using Proportional Allocation if the "pool" breaches limits agreed between IUK and Fluxys.

9.3.2 Proportional Gas Allocation

Proportional Allocation shares the gas flow in proportion to Shippers' total (Firm plus RE plus Interruptible) Hourly Scheduled Quantities with all Tranches being treated with the same priority (in effect the Tranches are ignored for Proportional Allocation).

Proportional Allocation is applied to redeliveries if the Flow Direction at the Connection Point is set to Forward Flow and applied to deliveries if the Flow Direction at the Connection Point is set to Reverse Flow.

9.4 Contra-flow Gas Allocation and With-flow Gas Allocation

When there are Hourly Scheduled Quantities in both Flow Directions at a Connection Point, Hourly Scheduled Quantities, which are counter to the direction of the Net Scheduled Quantity at that Connection Point are deemed to be met in full and exactly. Hourly Scheduled Quantities in the With-flow direction are normally met in full but may be subject to an end of day adjustment to take account of any 'steering difference that arises, to the extent that such quantity cannot be managed through the application of an OBA.

9.5 Fuel Gas Allocation

Fuel Gas is allocated throughout the day based on estimated consumption. Allocations are then adjusted after the day to reflect the actual, measured consumption.

In **Forward Flow (Commercial)**, the Fuel Gas consumed by the compressors at Bacton is metered and the Fuel Gas consumed at Zeebrugge (for the heaters) is estimated. In **Reverse Flow (Commercial)**, the Fuel Gas consumed by the boilers at Bacton is estimated.

Fuel Gas is separated into **Fuel Gas (Transportation)** and **Fuel Gas (Storage)**. Fuel Gas (Transportation) is deemed to be a percentage of the flow requirement through the pipe, and if aggregate Inventory is high, the actual Fuel Gas may be higher than this set percentage. Fuel Gas (Storage) is any quantity of Fuel Gas in excess of the Fuel Gas (Transportation).

In Forward Flow (Commercial) Fuel Gas (Transportation) is allocated to Shippers in proportion to their net Delivery Allocation at each Location (or net Redelivery Allocation if no Shipper has a net Delivery Allocation) and **Fuel Gas (Zeebrugge Heaters)** is allocated to Shippers in proportion to their net Redelivery Allocation at each Location (or net Delivery Allocation if no Shipper has a net Redelivery Allocation).

In Reverse Flow (Commercial) Fuel Gas (Bacton Heaters) is allocated to Shippers in proportion to their net Redelivery Allocation at each Location (or net Delivery Allocation if no Shipper has a net Redelivery Allocation) and there is no Fuel Gas (Transportation) at Zeebrugge.

Storage Fuel Gas is allocated to Shippers in proportion to their Storage Quantities. A Shipper's Storage Quantity is the amount of Inventory above their **Storage Fuel Gas Charging Threshold**. If no Shipper has a Storage Quantity, or the compressors at Bacton are being used for Reverse Flow, all Fuel Gas is allocated as Fuel Gas (Transportation).

9.6 Impact on Inventory

After each set of Gas Allocation calculations, each Shipper's Delivery Allocations are added to its Inventory, and its Redelivery Allocations and allocated Transportation and Storage Fuel Gas are subtracted from its Inventory, such that all Shippers' current Inventory positions are regularly updated during the Gas Day.

9.7 Electricity Allocation

Compressor Electricity is allocated throughout the day based on estimated consumption. Allocations are then adjusted after the day to reflect the actual, measured consumption.

In Reverse Flow, the Electricity consumed by the compressors at Zeebrugge is metered and the Fuel Gas consumed at Bacton (for the heaters) is estimated. In Forward Flow, there is no Compressor Electricity.

The **Compressor Electricity (Total)** is separated into **Compressor Electricity (Transportation)** and **Compressor Electricity (Storage)**. Compressor Electricity (Transportation) is deemed to be a percentage of the physical flow through the pipeline. If the aggregate Inventory position is high, the actual Compressor Electricity may be higher than this set percentage. Compressor Electricity (Storage) is any quantity of Compressor Electricity (Total) in excess of the Transportation Electricity.

In Reverse Flow and during a Flow Transition, Transportation Electricity is allocated to Shippers in proportion to their net Delivery Allocation at all Locations (or net Redelivery Allocation if no Shipper has a net Delivery Allocation).

Storage Electricity is allocated to Shippers in proportion to their Storage Quantities. If no Shipper has a Storage Quantity all Compressor Electricity is allocated as Transportation Electricity.

9.8 Reallocation

A Gas Day may be reallocated for the following reasons:

- electricity or gas meter readings have been revised;
- Hourly Scheduled Quantities have been revised; or
- the method of Gas Allocation used at the FTS Connection Point has changed and the Gas Day should have been allocated proportionally instead of using the Operational Balancing Agreement (or vice versa); or
- a significant steering difference has been caused directly by a 'late' nomination change by one or more Shippers and the resulting shortfall (or excess) is targeted at those Shippers

A Gas Day may only be reallocated if the initial Gas Allocation is complete for the Bacton and Zeebrugge Gas Days and the Gas Day has not been verified.

9.9 Verification

A Gas Day is verified when IUK is satisfied that the Gas and Electricity Allocation is correct. Gas Days will usually be verified in chronological order.

Upon verification, an adjustment to Inventory is made to account for any difference between the initial Gas Allocation and the final Reallocation. This is usually applied at 06:00 hours UKT on the next Gas Day following verification and the Shipper is notified of the adjustment to Inventory.

A verification status is shown on all Gas and Electricity Allocation statements:

<i>Provisional</i>	Indicates that the Gas Day, or any of the adjacent Gas Days, have not been verified.
<i>Final</i>	Indicates that the Gas Day has been verified and both adjacent Gas Days have been verified.

10 Inventory

10.1 Introduction

Each Shipper is required to contribute a share of the total quantity of natural gas necessary to allow the Interconnector to operate as determined by IUK. Shippers may vary the level of gas held within the Interconnector within prescribed Inventory Limits.

10.2 Inventory and Inventory Limits

IUK maintains a record of the Inventory for each Shipper in which their individual Inventory is continuously tracked, taking into account:

- their allocated deliveries into the Interconnector;
- their allocated redeliveries from the Interconnector;
- their allocation of Fuel Gas;
- their Inventory Transfers; and
- any adjustments to their Inventory

Shippers may vary their Inventory within their Inventory Limits, and if a Shipper's Inventory reaches an upper or lower **Inventory Warning Limit**, IUK will issue a warning to the Shipper, who should take action to correct the position. If a Shipper's Inventory reaches an upper or lower **Inventory Constraint Limit**, then IUK will constrain that Shipper's deliveries or redeliveries to maintain that Shipper's Inventory position between its Constraint Limits and to ensure that other Shippers' delivery and redelivery rights are not impeded.

The level at which Inventory Warning and Constraint Limits are set may be varied at IUK's discretion.

A Shipper's Inventory Limits define the "space" available to that Shipper to store gas in the Pipeline. The "space" available to a Shipper for storage is at its maximum when the Shipper is not transporting gas through the Pipeline and is at its minimum when the Shipper is transporting gas through the Pipeline at its maximum allowable rate. The "space" available to any one Shipper is also dependent upon the aggregate rate of transportation through the Pipeline.

10.3 Inventory Transfers

A Shipper may transfer Inventory to another Shipper by both parties agreeing the Inventory Transfer at least 2 whole hours prior to it taking effect. The Inventory Transfer will only take place insofar as it does not take either Shipper outside their Inventory Constraint Limits.

An administration fee per Inventory Transfer is payable by the transferor, based on the amount of Inventory transferred and subject to a maximum and minimum charge.

To assist the process of Inventory Transfers, a Bulletin Board is available on ISIS that allows Shippers to advertise available Inventory or a requirement for Inventory.

11 Pipeline Flow Transitions and Inventory Transitions²¹

11.1 Introduction

The process of changing the direction of physical flow of the Pipeline is referred to as a **Pipeline Flow Transition** and is initiated and implemented by IUK according to an agreed set of principles and to ensure that the transition is carried out as quickly as possible in an orderly and efficient manner and with the minimum disruption to Shippers' commercial flow requirements.

Normal operating requires the Bacton compressors to be used for Forward Flow and the Zeebrugge compressors to be used for Reverse Flow. In the event that the compressors at the Zeebrugge Terminal cannot be used for Reverse Flow, the compressors at the Bacton Terminal may be used. Using the Bacton compressors for Reverse Flow requires the Inventory to be significantly reduced. Resuming Reverse Flow with the Zeebrugge compressors will then require the Inventory to be significantly increased. The process of changing between these modes of Reverse Flow operation is referred to as an **Inventory Transition**.

11.2 Pipeline Flow Transition Decisions

A decision to initiate a Flow Transition may be taken at any hour²². Such decision is based on a consideration of:

- Shippers' Scheduled Quantities;
- The availability and status of any Operational Balancing Agreements;
- Physical flow metered and remaining physical flow requirement in the Gas Day; and
- Other operational factors

Shippers are notified of a decision to plan, delay or to cancel a Flow Transition both via ISIS and with a notice from IUK.

11.3 Operating Inventory

11.3.1 Forward to Reverse Flow Transition

A Shipper's Operating Inventory will not change significantly during a Forward to Reverse Flow Transition and effectively their Inventory Limits will either expand or contract in line with their capacity in the Reverse Flow Direction. However, if the Bacton compressors are to be used for Reverse Flow (due to the Zeebrugge compressors being unavailable) each Shipper's Operating Inventory will reduce significantly, and each Shipper will be required to remove Inventory from the Pipeline.

11.3.2 Reverse to Forward Flow Transition

A Shipper's Operating Inventory will not change significantly during a Reverse to Forward Flow Transition and effectively their Inventory Limits will either expand or contract in line with their capacity in the Forward Flow Direction. However, if the Bacton compressors were being used for Reverse Flow (due to the Zeebrugge compressors being unavailable) each Shipper's Operating Inventory will increase significantly, and each Shipper will be required to add Inventory to the Pipeline.

11.4 Nominations to Effect a Pipeline Flow Transition

IUK will advise Shippers prior to a Pipeline Flow Transition of their lower and upper Inventory Constraint Limits that will apply upon completion of the Pipeline Flow Transition. Shippers are required to take action, either through Nominations or Inventory Transfers to ensure that their Inventory is within their new lower and upper Inventory Constraint Limits by the end of the **Pipeline Flow Transition Period**.

²¹ Section redrafted in Issue 07.

²² The decision to transition will normally be taken between 08:00 and 16:00 each Gas Day.

Nominations during a Flow Transition Period contra to the new Flow Direction are permitted to the extent that they minimise interruption to deliveries or redeliveries in the new Flow Direction, provided that they do not extend the duration of the Pipeline Flow Transition Period.

During the course of a Pipeline Flow Transition, IUK may independently change the physical direction of flow at Connection Points.

11.5 Inventory Transition

In the event that the Zeebrugge compressors are unavailable and the Pipeline is in Reverse Flow, the Bacton compressors may be utilised in order to achieve Reverse Flow. The Reverse Flow capacity using the Bacton compressors is 8.5bcm/y although further capacity may be available subject to operating conditions. The reduced level of capacity could mean that Shippers' Nominations will be constrained. In order to use the Bacton compressors for Reverse Flow the aggregate level of Inventory within the Pipeline will be reduced through an Inventory Transition.

In the event that the Zeebrugge compressors become available whilst the Bacton compressors are being used for Reverse Flow, then in order to use the Zeebrugge compressors for Reverse Flow, the aggregate level of Inventory within the Pipeline will be increased through an Inventory Transition.

If an Inventory Transition is required, IUK will advise Shippers of their lower and upper Inventory Constraint Limits that will apply upon completion of the Inventory Transition. Shippers are required to take action, either through Nominations or Inventory Transfers to ensure that their Inventory is within their new lower and upper Inventory Constraint Limits by the end of the Inventory Transition.

11.6 IUK's Actions if a Shipper Fails to Act

IUK will check the Nominations and Inventory Transfers of each Shipper prior to and during a Pipeline Flow Transition or Inventory Transition, to determine whether their Inventory will be within their upper and lower Inventory Constraint Limits by the end of the Pipeline Flow Transition Period or Inventory Transition. If a Shipper's Nominations and Inventory Transfers do not meet the requirement, IUK will advise the Shipper. If a Shipper does not make appropriate Nominations or Inventory Transfers for their Inventory to be within their upper and lower Inventory Constraint Limits by the end of the Pipeline Flow Transition Period or Inventory Transition, then IUK is entitled to take the necessary balancing action and charge the cost of that action to the Shipper concerned.

IUK will notify any such Shipper of the steps which IUK decides to take.

12 Connection Point Reversal

12.1 Introduction

It is possible for the NTS Connection Point to be in the Reverse Flow Direction when the Pipeline Flow Direction is in the Forward Flow Direction. This situation is referred to as **Split Flow**, and occurs when the SILK Connection Point is in Forward Flow, the NTS Connection Point is in Reverse Flow, and the FTS Connection Point is in Forward Flow.

Therefore, it may be necessary to change the direction of flow at the NTS Connection Point in circumstances when there is not a Pipeline Flow Transition.

12.2 Rules for an NTS Connection Point Direction Change

Operationally, it is not possible to change the Flow Direction of the NTS Connection Point instantaneously, and therefore IUK have up to 4 hours in which to make the change.

A change to the Flow Direction of the NTS Connection Point can commence any hour between 06:00 hours UKT and 22:00 hours UKT within the Gas Day. The decision can be made from 15:00 hours UKT on the previous Gas Day up until 6 hours before the start time of the reversal, subject to:

- the first hour at the start of the reversal having an aggregate Net Nomination in the opposite direction to the current Flow Direction of the NTS Connection Point; and
- total aggregate Net Nominations for the remainder of the Gas Day after the reversal being at least 277,778 kWh in the opposite Flow Direction to the current Flow Direction of the NTS Connection Point.

The decision as to whether to change the Flow Direction of the NTS Connection Point is made by IUK who will notify Shippers following the decision. A planned change to the Flow Direction of the NTS Connection Point can be aborted up to 2 hours prior to the commencement of the planned reversal if Nominations change.

13 Reporting and Notices

13.1 During the Gas Day

During the Gas Day, ISIS will provide Shippers with their own initial allocated deliveries, allocated redeliveries, allocated Fuel Gas and allocated Compressor Electricity for all hours within the Gas Day up to and including the last whole hour, and will provide each Shipper with its own Inventory position versus its Inventory Limits.

13.2 After the Gas Day

Immediately after the end of a Gas Day, Shippers' allocated quantities may be adjusted to account for any steering difference and to finalise fuel allocation taking into account actual fuel consumption across the Gas Day. Following this 'reallocation' process, Shippers will receive a revised version of the daily allocation statement.

A Monthly Report is issued by IUK following the end of each month and contains for each Gas Day within the previous Month;

- in respect of the particular Shipper, the final Scheduled Quantity and Allocated delivered and redelivered quantities at each Delivery Point and Redelivery Point
- allocated quantity of Fuel Gas for the Shipper;
- allocated quantity of Compressor Electricity for the Shipper;
- any relevant metering adjustments; and
- average GCV and WI of the gas delivered at each relevant Delivery Point and redelivered at each relevant Redelivery Point.

In addition aggregate information is made available specifying separately the aggregate Firm, Reasonable Endeavours and Interruptible Nominations on each Gas Day in the relevant month and in relation to each Delivery Point and Redelivery Point.

13.3 Operational Notices

Operational Notices are sent by IUK to Shippers to inform them about particular matters. Such notices may be of two types:

- general notices, sent to all Shippers (e.g. notice of an ATS Constraint); or
- specific notices, sent to individual Shippers (e.g. notice of an Inventory Warning).

Notices may be sent by facsimile or via ISIS. ISIS maintains a log of notices for each Gas Day

13.4 Planned Maintenance Notification

Planned maintenance will be for a single continuous period each Gas Year, during the months of April to September. The start time of the planned maintenance period will be advised by IUK to Shippers in December of the preceding year and the duration will be confirmed in the following March.

14 Charges, Invoicing and Payment

14.1 Introduction

IUK Shippers will make payment to IUK for transportation services, in accordance with the provisions of the Standard Transportation Agreement. Such payment will be made by way of a Monthly Charge (in sterling) during the period of such services comprising:

- monthly capacity charge(s);
- monthly operating charge(s);
- administration charges (if any);
- ISIS charges (if any); and
- any other charges.

Sub-Let Shippers will make payment to IUK for transportation services. Such payment will be made by way of a Monthly Charge (in sterling) during the period of such services comprising:

- certain operational costs;
- administration charges (if any); and
- ISIS charges (if any).

Monthly capacity charges and monthly operating charges associated with Sub-Let Capacity will be paid to IUK by the Sub-Lessor.

In addition, IUK Shippers and Sub-Let Shippers will make payment to IUK for Compressor Electricity consumption by way of a Monthly Electricity Charge, in Euros.

14.2 Capacity Charges

There is a basic charge, determined with reference to an IUK Shipper's rights to Standard Capacity, which is normally payable irrespective of whether such capacity is utilised. In addition, an IUK Shipper who opts to use Interruptible Capacity, may incur further charges, dependent upon the extent to which such Interruptible Capacity is used within the charging period.

14.3 Invoices

On or before the 10th day of each month, IUK will submit an invoice in Sterling showing the Monthly Charge and an invoice in Euros showing the Monthly Electricity Charge to be paid by the IUK Shipper or the Sub-Let Shipper for the immediately preceding month. Payment of the Monthly Charge and the Monthly Electricity Charge shall be made by the 25th day of the month or 14 days after receipt of the invoice, whichever is later.

APPENDIX A: GLOSSARY OF TERMS

A1. Introduction

The primary purpose of this Appendix to provide a glossary of terms used in this manual. It is provided as an aid to understanding and is not intended to provide legal definitions.

The secondary purpose of this Appendix is to provide a form of index to the manual for reference purposes.

Terms in the Glossary are “**Initial Capitalised**” and emboldened in the text.

A2. Glossary

Term or Abbreviation	Description	Initial Reference
Approved Transmission System	Term for a gas pipeline system that has been approved by IUK for connection to the Interconnector at a Connection Point. See also NTS, FTS and SILK.	1.2
Assignment	Permanent transfer of Primary Capacity from an IUK Shipper to another IUK Shipper.	2.5
ATS	Acronym of “Approved Transmission System”.	1.2
ATS Constraint	When Shippers in the relevant ATS are unable to accept/provide gas from/to their Shipper counter-parties at the nominated rate.	7.3
ATS Operator	Organisation that operates an ATS	1.5.2
ATS Shipper	Organisation that transports gas using an Approved Transmission System. May agree with a Shipper to provide or accept gas at Connection Point through the Matching Process.	1.4
Available Capacity	The amount of Primary Capacity that an IUK Shipper has available to Sub-Let or Transfer taking into account all of their existing Sub-Lets and Capacity Transfers.	2.5
Bacton	Location of the UK end of the Pipeline.	1.2
Bulletin Board	Electronic notice board on which Capacity Transfers and Inventory can be advertised.	2.10
Capacity Transfer	A trade of Capacity between two IUK Shippers.	2.5
CET	Central European Time. Basis of clock used at Zeebrugge.	1.6
Compressor Electricity	HV Electricity that is used by the electric motors to power the compressors at Zeebrugge.	1.4
Connection Point	A point at which the Interconnector is connected to an Approved Transmission System. See also NTS, FTS, SILK, Delivery Point and Redelivery Point.	1.2
Constraint	Generic term for IUK Ahead of Day Constraint, IUK Within Day Constraint, ATS (NTS, SILK or FTS) Constraint or	1.4

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Term or Abbreviation	Description	Initial Reference
	Inventory Constraint.	
Contra-Flow Direction	The Pipeline or Connection Point Flow Direction opposite to the Prevailing Flow Direction of the Pipeline or Connection Point. See also Prevailing Flow Direction	2.1
D-1 Deadline	Deadline for Firm Nominations on a Gas Day, which is 14:00 hours UKT on the previous Gas Day.	6.2.1
Daily Matching Information	The summation of Hourly Matching Information for each hour within a Gas Day.	5.2
Daily Net Nomination	The difference between Daily Delivery Nominations and Daily Redelivery Nominations at a Connection Point or Location.	6.1
Daily Net Scheduled Quantity	The difference between Delivery Daily Scheduled Quantities and Redelivery Daily Scheduled Quantities at a Connection Point or Location.	7.2
Daily Nomination	The summation of Hourly Nominations for each hour within a Gas Day.	6.1
Daily Scheduled Quantity	The summation of Hourly Scheduled Quantities for each hour within a Gas Day.	7.2
Daily Standard Capacity	The summation of Hourly Standard Capacity for each hour within a Gas Day.	6.2.1
Delivery	Making gas available for offtake from the NTS, SILK or FTS to the Interconnector.	
Delivery Allocation	Allocation of Delivery Scheduled Quantities at a Connection Point	9.1
Delivery Nomination	Nomination that is for the transfer of gas from an ATS to the Interconnector.	6.1
Delivery Point	A Connection Point which allows the delivery of gas into the Interconnector from the relevant ATS (whether or not gas is physically flowing at that point). See also Redelivery Point.	1.2
Electricity Allocation	Process of determining the apportionment of Compressor Electricity between Shippers.	1.4
Elia	Owner of the electricity grid in Belgium from which HV Electricity is supplied.	8.1
Firm Nomination	Nomination for the transportation of gas that is within a Shipper's Standard Capacity, is based on Matching Information entered before the D-1 Deadline for the relevant Gas Day, and is within certain limits on the amount by which Firm Nominations can increase from one Gas Day to the next.	6.2
Firm Hourly Scheduled Quantity	Hourly Scheduled Quantity for the transportation of gas that is within a Shipper's Standard Capacity, is based on Matching Information entered before the Daily Deadline for the relevant Gas Day, and is within certain limits on the amount by which Firm Nominations can increase from one Gas Day to the next.	7.3.2
Flow Direction	The direction of flow, which is either Forward Flow from Bacton to Zeebrugge or Reverse Flow from Zeebrugge to Bacton. The Flow Direction can be specific to the Pipeline, to	1.2

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Standard Transportation Agreement Summary**

Term or Abbreviation	Description	Initial Reference
	an individual Location (Bacton or Zeebrugge) or to an individual Connection Point (NTS, SILK or FTS)	
Fluxys	The operator of the main gas transmission system in Belgium.	1.3
Fluxys Transit System	Gas transmission system in Belgium, operated by Fluxys. The Interconnector is connected to this Approved Transmission System at Zeebrugge.	1.3
Forward Flow	Direction of gas flow from Bacton to Zeebrugge.	1.2
Forward Flow (Commercial)	Commercial direction of gas flow is from Bacton to Zeebrugge, which may be different to the direction of physical gas flow.	9.5
FTS	Acronym for "Fluxys Transit System".	1.3
FTS Connection Point	The Connection Point at which the Interconnector connects to the FTS.	1.3
Fuel Gas	Gas supplied by Shippers to IUK for the operation of the Interconnector Transportation System (e.g. for compressors, heaters, etc).	1.4
Fuel Gas (Transportation)	Fuel Gas consumption that is notionally related to the transportation of gas.	9.5
Fuel Gas (Zeebrugge Heaters)	Fuel Gas that is consumed by the heaters at the Zeebrugge Terminal.	9.5
Fully Matched	Matching Information that has corresponding data that matches exactly.	5.6
Gas Allocation	Process of determining the apportionment of Delivered/Redelivered gas (and Fuel Gas) between Shippers at each Connection Point and its addition to/subtraction from IUK Shippers' Inventory.	1.4
Gas Day	Period from 06:00 to 06:00 hours on the following day.	4.3
Gas Week	Period from 06:00 on Monday to 06:00 hours on the following Monday	4.3
Gas Year	Period from 06:00 on 1 October to 06:00 hours on 1 October in the following year.	13.4
GSMR	Gas Safety (Management) Regulations 1996	3.2
Hourly Interruptible Capacity	Interruptible Capacity for an individual hour within the Gas Day	6.2.3
Hourly Matching Information	Matching Information for an individual hour within the Gas Day.	5.2
Hourly Net Nomination	The difference between Delivery Hourly Nominations and Redelivery Hourly Nominations at a Connection Point or Location.	6.1
Hourly Net Scheduled Quantity	The difference between Delivery Hourly Scheduled Quantities and Redelivery Hourly Scheduled Quantities at a Connection Point or Location.	7.1

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Term or Abbreviation	Description	Initial Reference
Hourly Nomination	A Nomination for an individual hour within the Gas Day.	5.6
Hourly Scheduled Quantity	A Scheduled Quantity for an individual hour within the Gas Day	7.2
Hourly Standard Capacity	Standard Capacity for an individual hour within the Gas Day.	6.2.3
HV Electricity	High Voltage Electricity supplied to the Zeebrugge Terminal at a voltage of around 150kV.	1.4
Interconnector	The Pipeline and the IUK facilities located at Bacton and Zeebrugge.	1.2
Interconnector Shippers' Information System	Computer system that implements the business rules and manages the interface between IUK and Shippers.	1.7
Interconnector (UK) Limited	The company that operates the Interconnector, abbreviated as "IUK".	1.1
Interruptible Capacity	Additional transportation capacity above the Standard Capacity made available by IUK to Shippers. See also Standard Capacity.	1.4
Interruptible Nomination	Nomination utilising a Shipper's share of Interruptible Capacity.	4.3
Interruptible Hourly Scheduled Quantity	Hourly Scheduled Quantity utilising a Shipper's share of Interruptible Capacity.	7.3.2
Inventory	Gas within the Interconnector supplied by Shippers. See also Inventory Limits.	1.4
Inventory Constraint:	Constraint on Deliveries or Redeliveries applied to a Shipper who has breached or is expected to breach their Inventory Limits.	7.2
Inventory Constraint Limit	Upper and lower limits of Inventory at which a Shipper is Inventory Constrained	10.2
Inventory Limits	Upper and lower limits of Inventory, within which each Shipper must operate, in order not to affect other Shippers.	1.4
Inventory Transition	The process of changing the level of Inventory in Reverse Flow to switch from using the compressors at the Zeebrugge Terminal to using the compressors at the Bacton Terminal (or vice-versa).	11.1
Inventory Transfer	A trade of inventory between two Shippers.	10.2
Inventory Warning Limit	Upper and lower limits of Inventory at which a Shipper is warned that they are nearing their upper or lower Inventory Constraint Limit.	10.2
ISIS	Acronym of "Interconnector Shippers' Information System".	
ISIS User Agreement	The agreement between IUK and Shippers that regulates access and use of ISIS.	2.7
IUK	Acronym of "Interconnector (UK) Limited"	1.1

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Standard Transportation Agreement Summary**

Term or Abbreviation	Description	Initial Reference
IUK Ahead of Day Constraint	IUK Constraint relating to operating difficulties within the Interconnector declared by IUK prior to 12:00 hours UKT on the Gas Day prior to the constraint taking effect. See also IUK Within Day Constraint.	7.3
IUK Commercial Operations	The organisational unit within IUK that is responsible for the commercial operation of the Interconnector.	1.5.1
IUK Shipper	An organisation with rights to transport gas through the Interconnector pursuant to a Standard Transportation Agreement.	2.4
IUK Within Day Constraint	IUK Constraint relating to operating difficulties with the Interconnector, declared by IUK after 12:00 hours <u>UKT</u> on the Gas Day prior to the constraint taking effect. See also IUK Ahead of Day Constraint.	7.3.2
kWh	Kilowatt hour – The main energy unit used within ISIS.	
“Lesser of” Rule	Rule applied within the Matching Process that in the event of Partially Matched Matching Information the lesser of the two quantities is used in the generation of a Nomination.	5.6
Local Operating Procedure	Procedure that is agreed between IUK and an ATS Operator.	1.5.1
Location	An end of the Pipeline; the Bacton Location in the UK, and the Zeebrugge Location in Belgium.	1.2
LV Electricity	Low voltage electricity being that part of the HV Electricity that is not used by the electric motors to power the compressors.	8.1
Matching Agent	Organisation which enters Matching Information into ISIS on behalf of those ATS Shippers who do not have access to ISIS.	1.5.2
Matching Information	The information provided by a Shipper and its counterparty ATS Shipper as to the quantity of gas to be delivered to or redelivered from the Interconnector at a Connection Point, together with coded counterparty information.	1.4
Matching Process	Process that compares Matching Information supplied by Shippers and ATS Shippers to ensure that their gas flow requirements agree prior to the creation of a Nomination.	5.1
MMJ	Millions of Megajoules: alternate energy unit. Previously was the main unit of energy measurement within ISIS, since superseded by kWh. 1 MMJ ~ 277,778 kWh.	
Monthly Charge	Charge payable by Shippers for transportation services.	14.1
Monthly Electricity Charge	Charge payable by Shippers based on their allocation of Compressor Electricity during a month.	1.4
National Grid Gas	The operator of the main gas transmission system in the UK.	1.3
National Transmission System	Gas transmission system in the UK, operated by National Grid Gas. The Interconnector is connected to this Approved Transmission System at Bacton.	1.3
Nomination	A quantity of gas specified by a Shipper (through Matching Information) for delivery to or redelivery from the	1.4

**Interconnector (UK) Limited
Standard Transportation Agreement Summary**

Term or Abbreviation	Description	Initial Reference
	Interconnector at a Connection Point which has been accepted and confirmed by IUK.	
Notional Flow	The physical metered flow at a Connection Point plus the Hourly Scheduled Quantities that are in the Contra-Flow Direction at that Connection Point.	9.1
NTS	Acronym of "National Transmission System".	1.3
NTS Connection Point	The Connection Point at which the Interconnector connects to the NTS.	1.3
NTS Constraint	When ATS Shippers in the NTS are unable to provide/accept gas to/from their Shipper counter-parties at the nominated rate.	5.6
OBA	Abbreviation of 'Operational Balancing Agreement'	9.1
Operational Balancing Agreement²³	Agreement between connected transporters in which quantities of gas may be put in or taken from a notional 'pool', thereby enabling Shippers to be allocated exactly their commercial requirement.	9.1
Operational Notices	Notices issued by IUK to Shippers via ISIS or via facsimile to inform them of key events such as Constraints.	13.3
Partially Matched	Matching Information that has corresponding counterparty data, but for a different quantity.	5.6
Pipeline	The pipeline between Bacton in the UK and Zeebrugge in Belgium	1.2
Pipeline Flow Transition	Process of changing the direction of physical flow of the Pipeline.	1.4
Pipeline Flow Transition Period	Period during which a Pipeline Flow Transition is taking place.	11.3
Prevailing Flow Direction	The direction in which gas is currently flowing in the Pipeline or at a Connection Point. If no gas is flowing, the direction is deemed to be that when gas last flowed. See also Contra-Flow Direction.	2.1
Primary Capacity	An IUK Shipper's basic right to Standard Capacity within the Interconnector that was either acquired directly from IUK or through an Assignment from another IUK Shipper.	2.1
Primary Interruptible Capacity	The amount of Interruptible Capacity that is made available to Shippers subject to favourable operating conditions.	2.3
Prioritised Allocation	Method of Gas Allocation that takes account of the Tranches within Scheduled Quantities.	9.2
Proportional Allocation	Method of Gas Allocation that does not take account of the Tranches within Scheduled Quantities.	9.3

²³ Definition added in Issue 07.

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Term or Abbreviation	Description	Initial Reference
RE Nomination	Abbreviation of "Reasonable Endeavours Nomination"	6.2
RE Hourly Scheduled Quantity	Part of the Hourly Scheduled Quantity within Standard Capacity that is not Firm Hourly Scheduled Quantity.	7.3.2
Reasonable Endeavours Nomination	Part of the Nomination within Standard Capacity that is not a Firm Nomination.	6.2.2
Redelivery	Making gas available for offtake from the Interconnector to the NTS or FTS.	
Redelivery Allocation	Allocation of Redelivery Scheduled Quantities at a Connection Point	9.1
Redelivery Nomination	Nomination that is for the transfer of gas from the Interconnector to an ATS.	6.1
Redelivery Point	A Connection Point which allows the redelivery of gas into the relevant ATS from the Interconnector (whether or not gas is physically flowing at that point). See also Delivery Point.	1.2
Restricted Hourly Nomination	An Hourly Nomination that has been reduced due to it breaching the Shipper's Capacity entitlement. A Restricted Hourly Nomination always takes precedence over the Hourly Nomination on which it is based.	6.3
Reverse Flow	Direction of gas flow from Zeebrugge to Bacton.	1.2
Reverse Flow (Commercial)	Commercial direction of gas flow is from Zeebrugge to Bacton, which may be different to the direction of physical gas flow.	9.5
Scheduled Quantity	The best estimate of gas to be Delivered/Redelivered by/to a Shipper within a given time period.	1.4
Seal Interconnector Link pipeline	A Pipeline which delivers gas to the Interconnector. The Interconnector is connected to this Approved Transmission System at Bacton.	1.3
Secondary Interruptible Capacity	An additional amount of Interruptible Capacity that may be made available when one or more Shippers are not utilising all of their Primary Capacity and/or Primary Interruptible Capacity.	2.3
Shipper	An organisation with rights to transport gas through the Interconnector. Shipper refers to both IUK Shippers and Sub-Let Shippers.	1.1
Shipper D-1 Deadline	Deadline for receipt of Shipper Daily Matching Information; 13:00 hours UKT.	5.4
Shipper ID Codes	Codes that maintain confidentiality of Matching Information.	5.7
SILK	Acronym for "Seal Interconnector Link pipeline".	1.3
SILK Connection Point	The Connection Point at which the Interconnector connects to the SILK pipeline.	1.3
Split Flow	The SILK Connection Point is in Forward Flow, the NTS	12.1

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Standard Transportation Agreement Summary**

Term or Abbreviation	Description	Initial Reference
	Connection Point is in Reverse Flow, and the FTS Connection Point is in Forward Flow	
Standard Capacity	Determined with reference to specified pressure conditions. The entitlement of each IUK Shipper to Standard Capacity is expressed as a flow rate (in Normal cubic metres per hour) in their Standard Transportation Agreement and is converted into an energy rate in ISIS (kWh/day or kWh/hr).	1.2
Standard Direct Access Agreement	Contractual Agreement signed by all IUK Shippers setting out terms of access for additional Connection Points, such as the SILK Connection Point.	1.1
Standard Transportation Agreement	The contractual agreement (abbreviated to "STA") between each IUK Shipper and IUK, as amended from time to time.	1.1
Storage Electricity	Compressor Electricity that is notionally related to the storage of gas within the Pipeline.	9.7
Storage Fuel Gas	Fuel Gas consumption that is notionally related to the storage of gas within the Pipeline.	9.5
Storage Fuel Gas Charging Threshold	Level of Inventory above which a Shipper may be allocated Storage Fuel Gas.	9.5
Sub-Let	A transfer of Capacity for a specified period of time from an IUK Shipper to a non-IUK Shipper.	2.4
Sub-Let Capacity	Capacity that has been Sub-Let from an IUK Shipper to a Sub-Let Shipper for a specified period of time.	2.5
Sub-Let Shipper	A Shipper that has acquired Capacity through a Sub-Let from an IUK Shipper.	2.4
Tranche	A component (Firm, RE or Interruptible) of a Nomination.	6.2
Transferred Capacity	Capacity that has been transferred for a specified period of time from an IUK Shipper to another IUK Shipper.	2.5
Transportation Electricity	Compressor Electricity that is notionally related to the transportation of gas.	9.7
Unmatched	Matching Information that does not have any corresponding data for the appropriate counterparty.	5.6
UKT	UK Time. Basis of clock used at Bacton.	1.6
"Use it or Lose it"	Principle whereby unused capacity is made available to other Shippers.	2.3.2
Weekly Matching Information	Comprises Daily Matching Information for each Gas Day within a Gas Week.	5.2
Zeebrugge	Location of the Belgian end of the Pipeline.	1.2

**Interconnector (UK) Limited
Standard Transportation Agreement Summary**

Term or Abbreviation	Description	Initial Reference