OPERATING MANUAL REVERSE FLOW
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1. **GENERAL PROVISIONS**

1.1 Terms defined in the *Conditions* shall have the same meaning when used herein. This *Operating Manual* shall form part of the *Conditions* as amended from time to time and where it modifies provisions in or conflicts with the *Conditions*, the *Conditions* shall govern and take precedent.

For the purposes of this Exhibit A, except where it expressly provides otherwise, the following expressions shall have the meanings ascribed to them in this Article 1.1 and shall include the plural as well as the singular:

“Connection Point”
shall mean the point where the *BBL-Facilities* are connected to the facilities of the *NNO*.

“D”
shall mean the Gas Day on which the transmission and/or other services which is/are nominated is/are meant to be performed by *BBL Company*, and D-1 means the Gas Day preceding D. D starts at 6.00 hours LET and ends at 6.00 hours LET the next Gas Day.

“Day” and “Daily”
shall have the same meaning as Gas Day in the *Conditions*.

“Downstream Party”
shall mean a third party receiving Gas from *Shipper* at the *Exit Point Reverse Flow*.

“Lesser Rule”
shall mean with respect to the deemed Quantity of Gas (re)nominated by *Shipper* and the deemed Quantity of Gas (re)nominated by the relevant Upstream Party or Downstream Party, that the Properly (Re)Nominated Quantity of Gas shall be deemed to be equal to the lowest quantity of such (Re)Nominations with respect to the relevant Pair of Shipper Codes.

“Pair of Shipper Codes”
shall mean the Shipper Code of *Shipper* together with the shipper code of an Upstream Party or a Downstream Party under a (Re)Nomination made by *Shipper*.

“Upstream Party”
shall mean a third party delivering Gas to *Shipper* at the Entry Point Reverse Flow.

1.2 *BBL Company* and *Shipper* shall conduct their respective operations in a prudent and efficient manner. *Parties* will inform each other as soon as reasonably possible, of any foreseeable condition or occurrence that could affect the deemed Quantity of Gas.

1.3 Both *Parties* shall be reachable twenty-four (24) hours a day and every day of the year by phone and any mutually agreed other communication system.

1.4 *Parties* shall use NOMINT and NOMRES messages according to Edig@s, as the protocol for exchanging dispatching information, where Edig@s is a subset of ‘EDI/EDIFACT’ (Electronic Data Interchange/Electronic Data Interchange for Administration Commerce and Transport) as described in detail at http://www.edigas.org.

1.5 A communication test, which includes the sending of contact details to *BBL Company*, will be performed by *BBL Company* in accordance with Article 3.1 (b) of the *Conditions* to check
whether the BBL-Shipper (or a third party acting on behalf of the BBL-Shipper) has the means of handling messages with BBL Company according to the Edig@s protocol. Such a communication test can take up to five (5) Business Days.

1.6 In case Parties are temporarily not able to use Edig@s messages, because of e.g. system malfunction, Parties shall temporarily exchange messages via fax or through a mutually agreed other means of communication. Parties will take appropriate action to restore, as soon as possible, the Edig@s communication.

1.7 Any (Re)Nomination and Confirmation under this Operating Manual shall relate to LET and shall be expressed in kWh (rounded to the nearest kWh) unless agreed otherwise in writing.

1.8 In accordance with the Edig@s Message Implementation Guidelines (MIG) Version 3.2 dated 01-04-2005, the quantities transmitted in the Edig@s messages can have a positive or negative value. In order to avoid any misunderstanding in the meaning of those quantities Edig@s has defined the following sign convention:

- (Minus sign) qualifies a Quantity of Gas as (deemed to be) delivered into the BBL-Facilities at the Entry Point Reverse Flow by an Upstream Party.
+ (Plus sign) qualifies a Quantity of Gas as (deemed to be) retrieved from the BBL-Facilities at the Exit Point Reverse Flow by a Downstream Party.

Alternately BBL-Shippers may, instead of the sign convention, use the following codes:

Z02 qualifies a Quantity of Gas as (deemed to be) delivered into the BBL-Facilities at the Entry Point Reverse Flow by an Upstream Party.
Z03 qualifies a Quantity of Gas as (deemed to be) retrieved from the BBL-Facilities at the Exit Point Reverse Flow by a Downstream Party.

1.9 All documents, notices or other information, other than Nominations and Confirmations, required to be supplied under this Operating Manual should be exchanged by a secure data communication system.

1.10 The basic operating philosophy chosen for the BBL-Facilities is a system where the pipeline is kept at a more or less constant average pressure and the flow into and from the pipeline is kept equal as much as possible. Only for operational optimisation (e.g. very low inlet pressures at the grid of National Grid) the pipeline pressure will be lowered to either save compression power or heating power for the BBL-Facilities.
2. NOMINATION PROCEDURE

2.1 General

This procedure describes how to (Re)Nominate in a Reverse Flow Direction situation.

2.2 Weekly Nominations

Shipper (or a third party acting on behalf of Shipper) shall at the latest on Friday of each week before 14:00 hours LET provide BBL Company with a weekly Nomination containing for each Gas Day of the following week, starting on Monday 06:00 LET, the Shipper Codes of the relevant Upstream Parties and Downstream Parties, the Daily Quantities of Gas deemed to be offtaken by Shipper from such Upstream Parties and Daily Quantities of Gas deemed to be made available by Shipper to such Downstream Parties. In case Shipper fails to send the weekly Nomination before the specified due time above, BBL Company will deem the weekly Nomination to be zero (0) for each Gas Day of the following week.

2.3 Daily Nominations

Shipper (or a third party acting on behalf of Shipper) shall provide BBL Company with a Nomination for each Hour of each Gas Day D for the Entry Point Reverse Flow as well as the Exit Point Reverse Flow. This set of twenty four (24) Nominations is defined as a Daily Nomination (twenty three (23) & twenty five (25) during the switches to respectively from the daylight saving periods).

Any Nomination or, with respect to each Hour for which a (Re)Nomination is issued, (Re)Nomination shall contain for each Hour the Shipper Codes of the relevant Upstream Parties and Downstream Parties, the Quantities of Gas deemed to be offtaken by Shipper from each Upstream Party and Quantities of Gas deemed to be made available by Shipper to each Downstream Party.

Shipper (or a third party acting on behalf of Shipper) may send a Nomination up to 122 Gas Days in advance of Gas Day D. Any Nomination will remain valid until it is replaced by a (Re)Nomination. A Nomination for Gas Day D must be received by BBL Company at the latest at 14:00 hours LET on Gas Day D-1.

In case Shipper exceeds the Nomination deadline for Gas Day D, the nominated (deemed) Hourly Quantities of Gas shall be deemed to be equal to the (deemed) Daily Quantities of Gas from the weekly Nomination divided by twenty four (24), unless (re)nominated in accordance within the (Re)Nomination deadline.

In case Shipper’s (Re)Nomination for one (1) or more Hours exceeds the lowest of the Transmission Capacity on both Interconnection Points for said Hour(s), this (Re)Nomination shall be rejected by BBL Company whereby the reason of this rejection will be mentioned in the Confirmation.

(Re)Nominations before or within Gas Day D regarding Hour H, received by BBL Company at least two (2) full clock hours in advance of that Hour H, will be processed by BBL Company in accordance with this Operating Manual prior to that Hour H.
Any limitation which is technically necessary may be applied with respect to the rate at which the physical Gas flow in the *Forward Flow Direction* is allowed to change. As a consequence of this, a limitation may also be applied with respect to the rate at which *Shipper’s Gas* flow in the *Reverse Flow Direction* is allowed to change in accordance with the *Transmission Capacity* (e.g. the flow rate is allowed to change with some percentage of the *Transmission Capacity*).
3. **PRIORITY PRINCIPLES**

Interruptions of capacities according to Article 4 of the *Conditions* shall be performed using the pro rata principle.

The awarding of time stamps to capacity in the *Reverse Flow Direction* shall take place in accordance with the following rules:

- *Quarterly* capacity has an earlier time stamp (for the avoidance of doubt: this means that this capacity will have a lower priority of interruption) than *Monthly* capacity. *Monthly* capacity has an earlier time stamp than *Daily* capacity.

If, due to (re)nominations of one or more BBL-shippers, the available *Interruptible transmission capacity* in the *Reverse Flow Direction* changes, the *Interruptible Reverse Flow Direction* confirmations will be recalculated. If this recalculation leads to a changed *Interruptible Reverse Flow Direction Confirmation* for *Shipper*, *Shipper* will receive a new *Confirmation* message.
4. MATCHING AND CONFIRMATION

4.1 Any Daily (Re)Nomination received by BBL Company will be validated against the conditions of the Agreement and be matched with the data from GTS. In addition BBL Company will perform a matching procedure consisting of comparing the sum of Shipper’s (Re)Nominations at the Entry Point Reverse Flow with those for the GTS exit point. If they are not equal, the (Re)Nomination will either be deemed to be zero (0) kWh or the Lesser Rule will be applied, as described under Article 4.2 of this Operating Manual Reverse Flow.

The sum of Shipper’s (Re)Nominations at the Exit Point Reverse Flow and the sum of shippers (re)nominations at the National Grid exit point (where shippers nominate National Grid exit into BBL will be verified against the sum of Shipper’s (Re)Nominations at the Exit Point. If the respective sums are not equal, the Exit Point (Re)Confirmations will also be applied to the Exit Point Reverse Flow.

4.2 Upon execution of Article 4.1 of this Operating Manual, BBL Company will apply the following matching rules to each (Re)Nomination made for any Hour:

1) if the Pairs of Shipper Codes do not match, the Quantities of Gas (re)nominated by Shipper for that Hour shall be deemed to be zero (0) kWh with respect to such Pairs of Shipper Codes (zero rule);

2) if the (re)nominated sign or code (by Shipper) with respect to a Pair of Shipper Codes is equal to the (re)nominated sign or code of the relevant Upstream Party or Downstream Party, the (re)nominated deemed Quantity of Gas (by Shipper) for that Hour shall be deemed to be zero (0) kWh with respect to such Pairs of Shipper Codes (zero rule);

3) if the (re)nominated deemed Quantity of Gas (by Shipper) with respect to a Pair of Shipper Codes is not equal to the (re)nominated deemed Quantity of Gas of the relevant Upstream or Downstream Party, the deemed Quantity of Gas (re)nominated (by Shipper) shall be deemed to be equal for that Hour to the lower Quantities of Gas mentioned in such (re)nominations with respect to such Pairs of Shipper Codes (Lesser Rule).

4) if there is no Nomination received at the Exit Point the relevant Downstream Party will be taken from the Delord message (Call-up) from National Grid and the confirmed Quantities of Gas for the Shipper at the Entry Point will be applied at the Exit Point (mismatch).

5) if the Delord message (Call-up) is not received from National Grid, the relevant Downstream Party, will be taken from the (Re)Nomination at the Exit Point (mismatch).

Where none of (1) to (5) above applies there is a “match” and the deemed Quantity of Gas (re)nominated for the relevant Pair of Shipper Codes for that Hour shall be accepted by BBL Company.

4.3 After validation and matching according to Article 4.2 of this Operating Manual Reverse Flow, BBL Company shall issue a Confirmation. Any Confirmation shall contain for each Hour of Gas Day D besides the Shipper Codes of the relevant Upstream Parties and Downstream Parties, the Quantities of Entry Gas Reverse Flow deemed to be offtaken by Shipper from such Upstream Parties and Quantities of Exit Gas Reverse Flow deemed to be made available by Shipper to such Downstream Parties.

BBL Company shall send a new Confirmation due to any changes resulting from any validation and/or matching according to Article 4.2 of this Operating Manual Reverse Flow.
4.4 **BBL Company** shall send a *Confirmation* for *Gas Day D* to *Shipper* as soon as reasonably possible between 15:40 hours *LET* and 16:00 hours *LET* on *Gas Day D−1*.

In case of a *(Re)Nomination* **BBL Company** shall send a *Confirmation* as soon as reasonably possible, in any case before the beginning of the *Hour* to which the *(Re)Nomination* refers if such *(Re)Nomination* has been provided in accordance with the lead time as provided for in Article 2.3 of this *Operating Manual Reverse Flow*.

If a reduction in *Transmission Capacity* occurs due to a quality deficiency or a *Capacity Restriction* (Article 8 of the *Conditions*), *Shipper* shall be informed by phone about the reason, the expected duration and the amount of capacity reduction followed by a reduced *Confirmation* message.

**BBL Company** shall use the quantities indicated on the last sent *Confirmation* referring to *Gas Day D* as the basis for allocation calculations regarding *Gas Day D*.

For the avoidance of doubt:
- confirmed quantities may be lower than the corresponding *(re)nominated quantities, and
- confirmed quantities may exceed the corresponding *(re)nominated quantities, and
- it is *Shipper’s* responsibility to check for the receipt of the *Confirmation*, to take notice of the content of the *Confirmation* and to decide if further actions by *Shipper* (e.g. notification of *Shipper’s* customer) are required, and
- **BBL Company** is not allowed to change or withdraw any issued *Confirmation*, subject to Article 4.5 of this *Operating Manual*.

4.5 In case **BBL Company** faces constraints with respect to the deemed deliveries and deemed offtakes at the *Entry Point Reverse Flow* or *Exit Point Reverse Flow* (for reasons like mismatches, non availability of *Interruptible capacity*) in such a way that a *Nomination* can not be met, **BBL Company** shall issue a *Confirmation* containing the remaining *Quantities of Gas* deemed to be offtaken by *Shipper* from *Upstream Parties* and the *Quantities of Gas* deemed to be made available by *Shipper* to *Downstream Parties*. 
5. **MEASUREMENT OF QUANTITIES**

5.1 Introduction

The provisions in this Article 5 are primarily relevant for Gas flows in the *Forward Flow Direction*, but they indirectly influence the availability of transmission capacity in the *Reverse Flow Direction*. Therefore they form part of this *Operating Manual Reverse Flow*.

The flow of Gas in the *Forward Flow Direction* is measured at both the *Entry Point* and *Exit Point*. The flow of Gas at the *Entry Point* from GTS is measured by facilities owned and operated by GTS. The flow of Gas at the *Exit Point to National Grid* is measured by facilities owned and operated by *BBL Company*.

5.2 Incorrect operation of measuring equipment

In the event that incorrect operation of the measuring equipment is ascertained at the *Entry Point* or the *Exit Point*, Shipper shall not be required to accept any retroactive allocation with regard to an *Entry Point Reverse Flow* or *Exit Point Reverse Flow* where an OBA exists.

In case no OBA exists at the *Exit Point Reverse Flow* and BBL Company ascertains incorrect operation of the metering equipment which measures the flow to or from the transmission grid operated by BBL Company, but the date of such incorrect operation cannot be determined, then such incorrect operation shall be deemed to have commenced on a date halfway between the date on which such incorrect operation is ascertained and the date of the last preceding uncontested check of metering equipment. The *Quantities of Gas* deemed to be delivered under the *Agreement* during the period of incorrect operation of the metering equipment will be adjusted according to the reasonable estimate of BBL Company. The period within which deemed to be delivered quantities will be readjusted shall be limited to the period from the date of the last preceding uncontested check of metering equipment. The date incorrect operation is ascertained will be deemed to be the date the check was performed which showed the incorrect operation of the metering equipment. Reallocation during that period will be performed pursuant to the provisions of the *Allocation Rules*.

5.3 Minimum flow rates

The minimum flow rate of both the *Entry Point* and *Exit Point* technical facilities is 200,000 kWh/hr. At this flow rate the total uncertainty of the amount of energy on an *Hourly* basis shall not exceed zero decimal seven five percent (0.75%) as provided for in Article 6.1.1 of the *Conditions*.

5.4 Publication of measured quantities

The measured quantities on the *Exit Point* will be published on the *Web Site* (www.bblico.com) insofar this information can be published without jeopardising confidentiality and does not harm the commercial position of shippers.
6. OPERATIONAL CONTROL

6.1 General

After having completed the matching procedure in both flow directions at both Connection Points the compressor(s) at the Entry Point and the flow control valve at the Exit Point will be set to the aggregate flow rate for the relevant Hour.

_BBL Company_ will control the flow at the Entry Point and the Exit Point in such a way that the physical flow will equal as far as possible the sum of the confirmed _Quantities of Gas_ of all BBL-shippers for each _Hour_.

6.2 Minimum net flow control

6.2.1 If the aggregate of all BBL-shippers’ confirmed _Hourly Quantities of Gas_ would require a physical flow below the minimum rate of the measurement facilities at the Entry Point and the Exit Point but above zero, then _BBL Company_ will use reasonable endeavours to offtake or redeliver intermittently at an instantaneous rate at, or above the minimum rate of the measurement facilities at that Entry Point and that Exit Point, subject to _Gas_ (deemed to) being made available or (deemed to) being offtaken by BBL-shippers at the same instantaneous rate.

6.2.2 If _BBL Company_ is unable to arrange to offtake or redeliver _Gas_ intermittently on or above the required minimum rate, then _BBL Company_ will request BBL-shippers to submit revised nominations such that the aggregate of all BBL-shippers’ confirmed _Hourly Quantities of Gas_ will require a physical flow at the Entry Point and the Exit Point at, or above, the minimum rate of the measurement facilities at that Entry Point and that Exit Point. If BBL-shippers are not willing and/or able to send the requested revised nominations, _BBL Company_ is forced to maintain the flow rate at the minimum level or bring the flow rate down to zero (0). The corresponding procedures are laid down in articles 6.2.3 and 6.2.4.

6.2.3 If _BBL Company_ is forced to maintain the flow rate at the minimum level, _BBL Company_ will send one or more revised confirmations with recalculated _Quantities of Gas_ based on the following priority schedule:

- First the _BBL-Shippers_ with confirmations in the _Reverse Flow Direction_ will be interrupted using the pro rata principle (see Article 3 of this _Operating Manual Reverse Flow_). The confirmations will be recalculated such that the sum of all confirmations will be equal to the minimum level;
- If, after all _BBL-Shippers_ with confirmations in the _Reverse Flow Direction_ have been interrupted, the aggregate of all BBL-shippers’ confirmed _Hourly Quantities of Gas_ would still require a physical flow below the minimum rate, then all BBL-shippers with confirmations in the _Forward Flow Direction_ will receive a revised higher confirmation which has been recalculated such that the sum of all confirmations will be equal to the minimum level. The necessary rise applicable to the sum of confirmations in the _Forward Flow Direction_ will be divided proportionally over all BBL-shippers with confirmations in the _Forward Flow Direction_.

6.2.4 If _BBL Company_ is forced to bring the flow rate down to zero (0), _BBL Company_ will send one or more revised confirmations to BBL-shippers with confirmations in the _Forward Flow Direction_ with recalculated _Quantities of Gas_ based on the following priority schedule:
First the BBL-shippers with confirmations related to Interruptible capacity in the Forward Flow Direction will be interrupted using the pro rata principle. The revised confirmations will be recalculated such that the sum of all confirmations in the Forward Flow Direction will be equal to the sum of all confirmations in the Reverse Flow Direction;

Then the BBL-shippers with confirmations related to firm capacity in the Forward Flow Direction will be interrupted proportionally. The revised confirmations will be recalculated such that the sum of all confirmations in the Forward Flow Direction will be equal to the sum of all confirmations in the Reverse Flow Direction.

6.3 Flow variation restrictions

Flow variations are restricted by:

a) The contractual arrangements with the NNO’s at both the Entry Point and the Exit Point, and
b) The operating philosophy of BBL Company with respect to pipeline pressure, and

c) The technical limitations of the facilities at both the Entry Point and the Exit Point.
7. **ALLOCATION**

7.1 Introduction

Allocation is the process by which Gas is apportioned on an Hourly basis to BBL-shippers. Allocation calculations are performed separately for each flow direction at the Entry Point as well as the Exit Point, or at the Entry Point Reverse Flow as well as the Exit Point Reverse Flow.

Allocation in general consists of:
- Measuring physical deliveries of Gas, and
- Identifying confirmed Quantities of Gas in the Forward and Reverse Flow Direction, and
- Deeming confirmed Quantities of Gas in the Reverse Flow Direction to be met, and
- Adding the confirmed Quantities of Gas in the Reverse Flow Direction to the physical flow, and
- Allocating this calculated flow pro rata to the Forward Flow confirmations.

Where Shipper has confirmed Quantities of Gas in both flow directions at the same time, they are treated separately for allocation purposes (even if they are at the same Connection Point).

7.2 Gas flows in the Reverse Flow Direction shall be deemed. Therefore they will be allocated as confirmed, which means that in any Hour the allocation is equal to the most recent Confirmation for that Hour.

7.3 Reallocation

Reallocations are only allowed in exceptional circumstances, for example in case of a Capacity Restriction or in case of incorrect operation of the measuring equipment (Article 5.2 of this Operating Manual).

7.4 Publication of allocations

The (provisional) allocations on both Connection Points will be calculated every Hour in accordance with the applicable Allocation Rules and made available by on-line electronic transmission to the BBL-shippers and National Grid. If the allocations are based on provisional measured quantities, final allocations shall be made available at the beginning of the following Month.
8. **QUALITY AND PRESSURE SPECIFICATIONS**

8.1 Quality specification at the *Entry Point Reverse Flow* and the *Exit Point Reverse Flow*

The quality specifications for the *Entry Point Reverse Flow* shall be in line with the quality specifications for the *Exit Point Reverse Flow*. The quality specifications for the *Entry Point Reverse Flow* and the *Exit Point Reverse Flow* are laid down in the respective grid connection agreements.

8.2 Pressure specifications at the *Entry Point Reverse Flow* and the *Exit Point Reverse Flow*

The pressure specification for the *Exit Point Reverse Flow* shall be agreed between *BBL Company* and *GTS* in such a way that the obligations of *Parties* under the *Agreement* will be fulfilled.

The pressure specification for the *Entry Point Reverse Flow* shall be agreed between *BBL Company* and *National Grid* in such a way that the obligations of *Parties* under the *Agreement* will be fulfilled.
9. CONTACT DETAILS

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