

# CODE OF OPERATIONS MODIFICATION PROPOSAL



MODIFICATION DETAILS				
Modification Number: A104A		Modification Title: Transfer payment of Scheduling Charges revenue to allowed revenue		
Modification Proposer:	Modification Representative:	Modification Representative Contact Details (email address):	Date Submitted:	Proposed Implementation Date:
Gas Networks Ireland	Andrew Kelly	Andrew.Kelly@gasnetworks.ie	3/2021	1/10/2021
<b>Proposal (including rationale): To transfer payment of Scheduling Charges revenue from the Disbursement Account into GNI's allowed revenue. This will simplify GNI's monthly billing procedures. No additional revenues will accrue to GNI under the revenue cap model and the revenue received will be addressed in subsequent tariff reviews</b>				
<b>Proposed Implementation Date: 1 October 2021</b>				
<b>Proposed section of the Code to be modified: Section 1.4 of Part E (<i>Balancing/Shrinkage</i>)</b>				
MODIFICATION MOTIVATION				
<b>Intended Outcome of the Proposed Modification: To transfer payment of Scheduling Charges revenue from the Disbursement Account into GNI's allowed revenue</b>				
<b>Benefits of implementing this Modification: GNI will treat revenue from Scheduling Charges as allowed revenue which will simplify its billing system with revenues accounted for in subsequent tariff systems</b>				
<b>Consequences of not making this Modification: GNI will continue to deal with Scheduling Charge revenue in the Disbursements Account</b>				
<b>Illustrative Example (Please enter a scenario where the issue and solution are illustrated):</b>				



**CODE OF OPERATIONS**

**NOTICE TO SHIPPERS**

**PURSUANT TO THE CODE OF OPERATIONS**

**APPROVAL OF MODIFICATION**

**CODE MODIFICATION CODE MODIFICATION A104A - 'Transfer of  
Scheduling Charges Revenue to Allowed Revenue'**

**COMMISSION INSTRUCTION**

Pursuant to Section 13(1) of the Gas (Interim) (Regulation) Act 2002, the Commission approves Code Modification A104A - 'Transfer of Scheduling Charges Revenue to Allowed Revenue'

This modification amends Part E (Balancing and Shrinkage) of the Code of Operations to remove references to the term "Scheduling Charges" from Section 1.4 (Disbursements Account). The modification will not give rise to any changes in the calculation of Scheduling Charges.

This approved modification will come into effect on 11 May 2022 and will apply to all revenue received from Scheduling Charges from the commencement of the Gas Year 2021/2022.

Signed:

\_\_\_\_\_  
Karen Kavanagh  
Director of Networks & Economic Regulation

Issue Date: 11 May 2022



## **CODE OF OPERATIONS**

### **NOTICE TO SHIPPERS**

#### **PURSUANT TO THE CODE OF OPERATIONS**

#### **APPROVAL OF MODIFICATION**

#### **CODE MODIFICATION A104A– ‘Transfer of Scheduling Charges Revenue to Allowed Revenue’**

#### **COMMISSION RATIONALE**

Pursuant to Section 13(1) of the Gas (Interim) (Regulation) Act 2002, the Commission approves Code Modification A104A ‘Transfer of Scheduling Charges Revenue to Allowed Revenue.’

This modification will result in Scheduling Charges no longer being processed via the Disbursement Account and instead these charges will be treated as part of the Allowed Revenue of GNI. The modification will not give rise to any changes in the calculation of Scheduling Charges.

This approved modification will come into effect on 11 May 2022 but will apply to all revenue received from Scheduling Charges from the commencement of the Gas Year 2021/2022. The background and rationale for the modification are set out below.

#### **BACKGROUND**

Scheduling Charges are levied by the Transporter, GNI, in accordance with section 1.10 of Part E (Balancing and Shrinkage) of the Code of Operations. Such charges arise when a shipper’s allocated quantities differ, outside a specified tolerance, from their nominated quantities. Heretofore, revenue received from such charges together with revenue from Balancing Charges has been paid into a Disbursements Account which is operated in accordance with Section 1.4 of Part E of the Code of Operations. This Code Modification does not alter the rules for determination of Scheduling Charges, nor does it change the treatment of revenue relating to Balancing Charges. Balancing Charges will continue to be paid into the Disbursements Account.

On a monthly basis, for each shipper, GNI calculates the amounts due from, or to, that shipper arising from the aggregate of Balancing and Scheduling Charges which that shipper has incurred. Shippers are invoiced monthly by GNI where monies are due and given a credit where a credit is appropriate. At the end of each month, the Disbursements Account, in

overall terms, may be in credit or in debit depending on transactions in that month. GNI will include in the monthly invoice for the shipper's share of any such excess or deficit.

## **BRIEF OUTLINE OF THE CODE MODIFICATION AND INDUSTRY CONSULTATION**

On 31st March 2021, GNI raised the Code Modification A104A proposal. The legal text was circulated on 12th May for industry comment with a closing date of 31st May. One submission was received which sought confirmation that the methodology to be used for calculating Scheduling Charges would not in any way be changed by the modification. GNI duly confirmed to the shipper this was the case. The modification also formed part of the agenda for Code Modification Forum meetings on 16th June, 18th August and 20th October. No submissions were made at these meetings.

This Code Modification will result in the monies received by GNI from Scheduling Charges being treated as part of GNI's Allowed Revenue. GNI's Allowed Revenue is determined by the CRU pursuant to the 1976 Gas Act and GNI's Transmission and Distribution licences. The Allowed Revenue is set on a five-year basis as part of the Price Control process at a level that enables the licensee to cover its permitted expenditure and to enable it to earn a reasonable return on any capital it employs.

Each year, the network tariffs are reviewed by CRU to ensure that GNI only recovers the necessary costs for efficient operation of its Transmission and Distribution Systems. On an annual basis GNI reports to the CRU on its actual receipts for the year past and the CRU adjusts the transportation tariffs to allow for any under or over recovery of funds by GNI. Arising from Code Modification A104A, monies received from Scheduling Charges will be reconciled as part of such under or over recovery and will feed into the tariff setting process for the year ahead.

Scheduling Charges will continue to be invoiced monthly in accordance with Section 11.3 of Part I of the Code. Following implementation of the modification, GNI will treat all revenue received from Scheduling Charges for the Gas Year 2021/2022 as Allowed Revenue and will not process such revenue through the Disbursement Account.

## **REASONS FOR THE APPROVAL OF THE CODE MODIFICATION**

Code Modification A104A results in the simplification of the monthly billing process. While Scheduling Charges will continue to be invoiced monthly, going forward, they will not form part of the overall monthly calculation of the Disbursement Account deficit or excess. The CRU considers such a reduction in administration costs will be of benefit to shippers.

Issue Date: 11 May 2022

CODE OF OPERATIONS

PART E

ALL VIP DRAFTING HAS BEEN RETAINED BUT THE AVAILABILITY OF THE VIP PRODUCT IS SUSPENDED WITH EFFECT FROM 1 OCTOBER 2015.

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BALANCING  
SHRINKAGE

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VERSION 5.03

**Comprises version 5.02 published as of 16 April 2018**

**Incorporating the following Modifications**

- 1. Modification A092; Trading Platform;**
- 2. Modifications A091 and A093; Introduction of RNG Entry Points.**
- 3. Modification A094; Modification of Shipper Portfolio Tolerances;**
- 4. Modification A095; Calculation of Daily Imbalance Charges;**
- 5. Modification A096 and A096A Data Sharing – GDPR;**
- 6. Modification A097 Final Exit Allocation Amendment Date;**
- 7. Modification A098 Reduction of Capacity Overrun Multipliers.**

## Part E

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## **1. BALANCING**

### **1.1 General**

- 1.1.1 Each Shipper shall use reasonable endeavours to ensure that, in respect of each Day, its Initial Inputs and Final Inputs are equal to its Initial Outputs and Final Outputs respectively.
- 1.1.2 The Transporter shall be Cash Neutral with respect to the settlement of all Balancing Charges and Scheduling Charges.
- 1.1.3 Where a Shipper has a Daily Imbalance Quantity (as calculated in accordance with Section 1.5) in respect of a Day, Daily Imbalance Charges shall apply or shall arise for such Daily Imbalance Quantity in accordance with Section 1.6.
- 1.1.4 A Shipper may trade all or part of its Daily Imbalance Quantity for a Day with another Shipper (which has an opposing Daily Imbalance Quantity for the same Day) by transacting an After Day Trade with such other Shipper in accordance with Section 1.9.

### **1.2 System Imbalance**

- 1.2.1 The Transporter acting as an RPO and consistent with the economic and efficient operation of the Transportation System shall have the right at all times to take any Balancing Action(s) it considers appropriate in order to:
  - (a) maintain the Transportation System within its operational limits;
  - (b) achieve an end of day linepack position in the Transportation System different to the one anticipated on the basis of expected inputs to and offtakes from the Transportation System for that Day,
- 1.2.2 The Transporter shall, when considering and/or undertaking Balancing Actions for a Day take into account, inter alia:
  - (a) the Transporter's estimates of the demand for Natural Gas over and within the Day on which it is considered a Balancing Action may be required;
  - (b) applicable nomination information and allocation information available to the Transporter;
  - (c) measured gas flows;

- (d) operational pressures throughout the Transportation System;  
and
    - (e) such other facts/information as shall be considered appropriate by the Transporter having regard to inter alia the operational integrity of the Transportation System;
  - 1.2.3 The Transporter shall take Balancing Actions in a non-discriminatory manner in accordance with Section 1.3 and this Code;
  - 1.2.4 The Transporter shall undertake Balancing Actions under the Balancing Service Contract where the Transporter assesses that Market Balancing Transactions will not or are not likely to enable the Transporter to take Balancing Actions to meet the requirements of the Transportation System in a timely manner and in accordance with Section 1.2.1.
  - 1.2.5 System Imbalance Charges shall be debited from or credited to the Disbursements Account in accordance with Section 1.4.
- 1.3 Trading Platform and Balancing Gas Contracts
  - 1.3.1 The Transporter with the approval of the CRU may designate an electronic trading platform as the Trading Platform on which the Transporter may post and accept bids for Natural Gas for the purpose of undertaking Market Balancing Transactions under this Code and trades on such Trading Platform shall form the basis of calculation of certain Imbalance Charges.
  - 1.3.2 The Transporter shall consult with Shippers before the Transporter consents to modification to the Trading Platform Participation Terms.
  - 1.3.3 The Transporter shall enter into:
    - (a) Trading Platform Transaction Agreements with Shippers under which the Transporter may inter alia conclude with such Shipper Market Balancing Transactions.
    - (b) such Balancing Service Contract(s) as it considers necessary to facilitate Balancing Actions by way of Non Market Balancing Transactions during a Gas Year.
  - 1.3.4 A Balancing Service Contract shall be awarded in accordance with a fair and non-discriminatory procedure and in certain circumstances pursuant to a process other than a public tender with the approval of the CRU.
  - 1.3.5 The Transporter may make capacity available to facilitate submission of Entry Nomination(s) with respect to quantities of Balancing Gas



required by the Transporter pursuant to a Balancing Gas Buy under a Balancing Service Contract.

- 1.3.6 Where the person providing Balancing Gas pursuant to a Balancing Gas Buy is a Shipper (subject to Section 1.3.6 with respect to IBP Balancing Trades), Nominations with respect to Balancing Gas in respect of the Day shall be made separately and independently from any other Nominations made by such Shipper in respect of a Day. The Transporter shall for the purpose of Balancing Actions in respect of a Day be entitled to make Nominations and receive Allocations in respect of Balancing Gas.
- 1.3.7 Where the Transporter undertakes a Market Balancing Transaction under an TPTA each of the Transporter and the Shipper shall submit relevant IBP Nominations under Part D (*Nominations, Allocations and Supply Point Administration*) Section 1.2.5 and 1.2.5A and the Counterparty Trading Shipper shall submit all other Nominations in accordance with this Code.

#### 1.4 **Disbursements Account**

- 1.4.1 The Transporter shall establish an account ("**Disbursements Account**") which shall be operated in accordance with this Section 1.4.
- 1.4.2 The Transporter shall have the right in the performance of its obligations hereunder to apply any amounts credited to the Disbursements Account for the purpose of discharging any payments due in respect of Balancing Gas, Balancing Charges, Shrinkage Gas, Shrinkage Costs associated with the Transportation System which are not included in the Tariff and Non-Compliant Gas together with any administration charges, including but not limited to bank fees and charges, and other costs arising in connection with any of the matters listed above together with any and all costs associated with Balancing Gas Contracts and participation on the Trading Platform and/or the administration (including audit) of the Disbursements Account.
- 1.4.3 The Transporter shall within four months, after the Due Date in respect of invoices issued in respect of a Month, calculate for that Month:
- (a) the total amount received by the Transporter on or before the Due Date from Shippers and any other party in respect of Balancing Charges, ~~Scheduling Charges~~ and any cash out with respect to any Operational Requirement or reconciliation of Natural Gas in the Transportation System pursuant to any applicable OBA or IP OBA Provisions in respect of the relevant Month and any Monthly Disbursements Liability (calculated in accordance with Section 1.4.6) received from a Shipper in

respect of a previous Month subject to Section 1.4.3(c) below which shall be credited to the Disbursements Account ("**Monthly Disbursements Account Receipts**"); and

- (b) the total costs incurred by the Transporter which have not otherwise been recovered by the Transporter in respect of Balancing Gas, Balancing Charges Non-Compliant Gas [*and VIP Utilisation at the end or termination of a Shipper's I/C Inventory Space Booking Period*], and cash out or reconciliation of any Natural Gas in the Transportation System at the end of any applicable OBA or IP OBA Provisions together with any provision made by the Transporter in respect of such items payable in respect of the same Month and any other costs arising in connection with any of the matters listed above together with any and all costs associated with Balancing Gas Contracts and participation on the Trading Platform and any undischarged Monthly Disbursements Liability (calculated in accordance with Section 1.4.6) which has been outstanding for not less than three (3) Months ("**Monthly Disbursements Account Payments**").
- (c) any amounts in respect of Balancing Charges, ~~Scheduling Charges~~ and any cash out with respect to any Operational Requirement or reconciliation of Natural Gas in the Transportation System pursuant to any applicable OBA or IP OBA Provisions for any Month received by the Transporter after the calculation by the Transporter of the Monthly Disbursement Account Receipts and the Monthly Disbursement Account Liabilities for the Month and any previously undischarged Monthly Disbursement Liability Amount which has been accounted for under Section 1.4.3(b) shall be accounted for in the Annual Disbursements Account calculations in accordance with clause 1.4.7 below.

For the avoidance of doubt the Transporter may calculate the Monthly Disbursement Account Receipts and the Monthly Disbursements Account Liabilities for any Month at any time after the Due Date in respect of Invoices issued in respect of a Month where the Transporter is satisfied that all amounts due or payable for the benefit of the Disbursement Account in respect of that Month have been discharged in full.

- 1.4.4 At the time of calculating the Monthly Disbursements Account Receipts and the Monthly Disbursements Account Payments for a Month, the Transporter shall calculate the amount of any Monthly Disbursements Account Excess for the relevant Month in accordance with Section 1.4.5 or the amount of any Monthly Disbursements

Account Deficit for the relevant Month in accordance with Section 1.4.6. Each Shipper's share of such excess or deficit shall be the same proportion as that which the Shipper's Final Entry Allocations, Final IP Entry Allocations ( Final IP VEntry Allocations (but excluding any Final Sub-Sea I/C Offtake Allocations) and Final Exit Allocations bears to the aggregate of all Shippers' Final IP Entry Allocations Final Entry Allocations and Final Exit Allocations, (including IP VExit Allocations and Final IP CSEP Offtake Allocations but excluding Final Sub-Sea Offtake Allocations) respectively in that Month.

1.4.5 If the amount of Monthly Disbursements Account Receipts for a Month exceeds the Monthly Disbursements Account Payments for a Month ("**Monthly Disbursements Account Excess**") then the Transporter shall notify each Shipper of its share of the amount of such excess ("**Monthly Disbursements Credit**"). The Transporter shall:

- (a) subject to paragraph (b) below pay to each Shipper the amount of such Shippers Monthly Disbursements Credit after the issue of the Monthly Invoice in respect of the Month in which the Monthly Disbursements Credit is calculated.
- (b) retain the Monthly Disbursement Account Credit which would otherwise be due to an individual Shipper which Shipper has either:
  - (i) an outstanding Monthly Disbursement Liability; or
  - (ii) any outstanding amount due to payable to the Transporter in respect of any amount which if paid would be credited to the Disbursement Account.

Where a Shipper fails to discharge a Monthly Disbursements Liability such that the outstanding Monthly Disbursements Liability is included in the calculation of Monthly Disbursements Account Payments under section 1.4.3(b) the amount to which the Shipper would otherwise have been entitled shall be smeared among the other Shippers.

1.4.6 If the amount of Monthly Disbursements Account Receipts for a Month is less than the Monthly Disbursements Account Payments for that Month ("**Monthly Disbursements Account Deficit**") then each Shipper shall reimburse the Transporter for its share of the amount of such deficit ("**Monthly Disbursements Liability**") and the Transporter shall include such amount in the next Monthly Invoice to the Shipper in accordance with Part I (*Legal and General*) Section 11 (*Invoicing and Payment*).

- 1.4.7 The Transporter shall, after the end of each Gas Year, following the issue of an invoice/credit with respect to any Shipper's Additional Balancing Action Contribution, calculate for that Gas Year:
- (a) the total amount received from all Shippers (including any payments received from any Shipper in respect of its Monthly Disbursements Liabilities and any Monthly Disbursements Credit which have been retained by the Transporter pursuant to Section 1.4.5 together with amounts received from Shippers in respect of any Shipper's Additional Balancing Action Contributions and any other amount in respect of Balancing Charges, Shrinkage Costs not included in the Tariff ~~and Scheduling Charges~~ and any cash out with respect to any Operational Requirement or reconciliation of Natural Gas in the Transportation System pursuant to any applicable OBA or IP OBA Provisions which shall be credited to the Disbursements Account ("**Annual Disbursements Account Receipts**"); and
  - (b) the total costs incurred by the Transporter in respect of Balancing Gas, Balancing Charges, Shrinkage Gas, Shrinkage Costs (other than the cost of Distribution System Shrinkage Gas where not included in the Tariff), Shipper's Balancing Action Refund(s), Non-Compliant Gas, any outstanding Monthly Disbursements Liability (which has not otherwise been recovered) and any cash out with respect to any Operational Requirement or reconciliation of Natural Gas in the Transportation System pursuant to any applicable OBA or IP OBA Provisions and any provision made by the Transporter in respect of such items payable in respect of the same Gas Year and any other costs arising in connection with any of the matters listed above ("**Annual Disbursements Account Payments**").
- 1.4.8 At the time of calculating the Annual Disbursements Account Receipts and Annual Disbursements Account Payments for a Gas Year, the Transporter shall calculate the amount of any Annual Disbursements Account Excess in accordance with Section 1.4.9 and the amount of any Annual Disbursements Account Deficit in accordance with Section 1.4.10. Each Shipper's share of such excess or deficit shall be calculated in accordance with Section 1.4.11.
- 1.4.9 If the amount of the Annual Disbursements Account Receipts for a Gas Year exceeds the Annual Disbursements Account Payments for a Gas Year ("**Annual Disbursements Account Excess**") then the Transporter shall notify each Shipper of its share of the amount of such excess.

- 1.4.10 If the amount of the Annual Disbursements Account Receipts for a Gas Year is less than the Annual Disbursements Account Payments for such Gas Year ("**Annual Disbursements Account Deficit**") then each Shipper shall reimburse the Transporter for its share of the amount of such deficit.
- 1.4.11 The Transporter shall calculate each Shipper's credit from the Annual Disbursements Account Excess or contribution to the Annual Disbursements Account Deficit (as the case may be) in respect of such Gas Year as follows:

$$\frac{A}{B} * C$$

where:

- A = the sum of a Shipper's aggregate Final IP Entry Allocations, Final Entry Allocations and aggregate Final Exit Allocations, Final IP VExit Allocations, Final IP VEntry Allocations, Final IP CSEP Offtake Allocations and Final CSEP Exit Allocations for a Gas Year (but excluding all Final Sub-Sea I/C Offtake Allocations);
- B = the sum of the aggregate of all Shippers' Final IP Entry Allocations, Final Entry Allocations, Final IP VExit Allocations, Final IP VEntry Allocations and the aggregate of all Shippers' Final Exit Allocations and Final CSEP Exit Allocations and Final IP CSEP Offtake Allocations (but excluding all Final Sub-Sea I/C Offtake Allocations) for the Gas Year; or
- C = in the case of an Annual Disbursements Account Excess the amount of such excess; and  
in the case of an Annual Disbursements Account Deficit the amount of such deficit.
- 1.4.12 If there is an Annual Disbursements Account Excess, the Transporter shall, within twelve (12) days following notification to each Shipper of its share of such excess pursuant to Section 1.4.9, refund each such Shipper's share of the amount of such excess to such Shipper.
- 1.4.13 If there is an Annual Disbursements Account Deficit, each Shipper shall pay to the Transporter the amount of such Shipper's share of the deficit (plus any outstanding Monthly Disbursements Liability due by such Shipper), the Transporter shall issue to the Shipper an invoice in

respect of its share of such deficit in accordance with Part I (*Legal and Miscellaneous*) Section 11 (*Invoicing and Payment*).

1.4.14 NOT USED

1.4.15 The Transporter shall, after the end of each Gas Year and prior to the Annual Disbursements Account Reconciliation referred to in Section 1.4.7, calculate, for that Gas Year, the total net annual cost of the Balancing Actions (“**Net Annual Balancing Action Cost**”) undertaken by the Transporter in respect of the preceding Gas Year which cost may be negative amount.

1.4.16 Each Shipper’s required contribution (the “**Shipper’s Annualised Balancing Action Contribution**”) to the Net Annual Balancing Action Cost shall be calculated according to the following formula:

$$S = (X/Y) * Z$$

Where:

S = the Shipper’s Annualised Balancing Action Contribution;

X = the sum of a Shipper’s aggregate Final IP Entry Allocations, Final Entry Allocations, Final IP VEntry Allocations and aggregate Final Exit Allocations, Final IP VExit Allocations, Final CSEP Exit Allocations and Final IP CSEP Offtake Allocations for a Gas Year (but excluding all Final Sub-Sea I/C Offtake Allocations);

Y = the sum of the aggregate of all Shippers’ Final IP Entry Allocations, Final Entry Allocations, Final IP VEntry Allocations and the aggregate of all Shippers’ Final Exit Allocations, Final IP VExit Allocations, Final CSEP Exit Allocations and Final IP CSEP Offtake Allocations (but excluding all Final Sub-Sea I/C Offtake Allocations) for the Gas Year;

Z = the Net Annual Balancing Action Cost.

1.4.17 The Transporter shall review amounts received from and paid to each Shipper in respect of the cost of Balancing Actions in respect of the same Year through such Shipper’s Monthly Disbursements Invoices to establish such Shipper’s actual contribution to the cost of Balancing Actions in the relevant Gas Year as accounted for through the Monthly Disbursements Account mechanism (“**Shipper’s Interim Balancing Action Contribution**”);

- 1.4.18 Where a Shipper's Interim Balancing Action Contribution is less than the Shipper's Annualised Balancing Action Contribution the Transporter shall invoice the Shipper for the amount of the difference (the "**Shipper's Additional Balancing Action Contribution**").
- 1.4.19 Where the Shipper's Interim Balancing Action Contribution is in excess of the Shipper's Annualised Balancing Action Contribution then the Transporter shall account to the Shipper for such excess (the "**Shipper's Balancing Action Refund**") provided however that a Shipper shall not be entitled to a Shipper's Balancing Action Refund to the extent that the Shipper has (i) any undischarged Monthly Disbursements Liability; and (ii) any outstanding charges which if paid would be credited to the Disbursements Account; and/or (iii) the amount to which the Shipper would otherwise have been entitled shall be smeared among the other Shippers. A Shipper's Balancing Action Refund shall only be payable when all Shippers' Additional Balancing Action Contributions have been discharged in full.

## 1.5 Daily Imbalance Quantity Calculation

- 1.5.1 Each Shipper shall have attributed to it a quantity ("**Initial Daily Imbalance Quantity**" or "**IMB<sub>Initial</sub>**") for each Day, which shall be calculated by the Transporter after the Initial Allocations have been made on D+1 and which shall be calculated by subtracting a Shipper's Initial Outputs from its Initial Inputs on the Day in accordance with the following formula:

$$\mathbf{IMB_{Initial} = Initial\ Inputs - Initial\ Outputs}$$

where:

$$\mathbf{Initial\ Inputs} = \mathbf{All_{InInitial} + IBP_{Buy};}$$

$$\mathbf{Initial\ Outputs} = \mathbf{All_{OutInitial} + IBP_{Sell},}$$

where:

$All_{InInitial}$  = the sum of a Shipper's Initial IP Entry Allocations plus Initial Entry Allocations plus Initial IP VEntry Allocations [*plus the Shipper's VIP Withdrawal Allocations*] and minus the Shipper's VIP Injection Allocations in respect of Day D;

$IBP_{Buy}$  = the sum of a Shipper's IBP Buy Allocations in respect of Day D;

$All_{OutInitial}$  = the sum of a Shipper's Initial Exit Allocations (including Sub-Sea I/C Offtake Allocations and IP CSEP Offtake Allocations) and the Shipper's Initial CSEP Exit Allocations and the Shipper's initial IP VExit Allocations in respect of Day D; and

$IBP_{Sell}$  = the sum of a Shipper's IBP Sell Allocations in respect of Day D.

The Transporter shall notify to each Shipper the Initial Daily Imbalance Quantity in respect of such Shipper as soon as reasonably practicable, but not later than 17:30 hours on D+1. The Transporter shall disregard the Shipper's IP Entry Allocation and/or Entry Allocation in respect of Shrinkage Gas for the purpose of calculating the Shipper's Initial Daily Imbalance Quantity.

1.5.2 At any time between 17:30 hours on D+1 and 17:00 hours on M+7 a Shipper's Initial Daily Imbalance Quantity for a Day may become a Revised Daily Imbalance Quantity as a consequence of:

- (a) an Entry Reallocation or IP Reallocation between 17:00 hours on D+1 and 16:00 hours on D+5; and/or
- (b) an Exit Reallocation between 17:00 on D+1 and 16:00 on M+5; and/or
- (c) an ADT Buy or ADT Sell in respect of Day D in accordance with Section 1.9.

1.5.3 Each Shipper shall have a quantity ("**Final Daily Imbalance Quantity**" or " $IMB_{Final}$ ") for each Day of the preceding Month which shall be determined by the Transporter after the Final Allocations have been made and which shall be calculated by subtracting a Shipper's Final Outputs from its Final Inputs on the Day in accordance with the following formula:

$$IMB_{Final} = \text{Final Inputs} - \text{Final Outputs}$$

where:

$$\text{Final Inputs} = All_{InFinal} + IBP_{Buy} + ADT_{Buy};$$

$$\text{Final Outputs} = All_{OutFinal} + IBP_{Sell} + ADT_{Sell},$$

where:



- $All_{InFinal}$  = the sum of a Shipper's Final IP Entry Allocations and Final Entry Allocations and the Shipper's IP VEntry Allocations [*plus the Shipper's VIP Withdrawal Allocations*] [*and minus the Shipper's VIP Injection Allocations*] in respect of Day D;
- $IBP_{Buy}$  = the sum of a Shipper's IBP Buy Allocations in respect of Day D;
- $All_{OutFinal}$  = the sum of a Shipper's Final Exit Allocations (including Sub-Sea I/C Offtake Allocations and Final IP CSEP Offtake Allocations) and the Shipper's Final CSEP Exit Allocations and the Shipper's Final IP VExit Allocations in respect of Day D;
- $IBP_{Sell}$  = the sum of a Shipper's IBP Sell Allocations in respect of Day D;
- $ADT_{Buy}$  = the sum of a Shipper's ADT Buys in respect of Day D; and
- $ADT_{Sell}$  = the sum of a Shipper's ADT Sells in respect of Day D.

The Transporter shall notify to the Shipper the Final Daily Imbalance Quantity in respect of such Shipper as soon as reasonably practicable, but not later than 17:30 hours on M+7. The Transporter shall disregard the Shipper's Final Entry Allocation in respect of Shrinkage Gas for the purpose of calculating the Shipper's Final Daily Imbalance Quantity.

- 1.5.4 A Shipper's Initial Daily Imbalance Quantity and/or Final Daily Imbalance Quantity can be either negative or positive according to the following:
- (a) if the sum of a Shipper's Initial Inputs for a Day exceeds the sum of its Initial Outputs for that Day, the Shipper's Initial Daily Imbalance Quantity for that Day shall be positive;
  - (b) if the sum of a Shipper's Initial Outputs for a Day exceeds the sum of its Initial Inputs for that Day, the Shipper's Initial Daily Imbalance Quantity for that Day shall be negative;
  - (c) if the sum of a Shipper's Final Inputs for a Day exceeds the sum of its Final Outputs for that Day, the Shipper's Final Daily Imbalance Quantity for that Day shall be positive; and

- (d) if the sum of a Shipper's Final Outputs for a Day exceeds the sum of its Final Inputs for that Day, the Shipper's Final Daily Imbalance Quantity for that Day shall be negative.

1.5.5 For the avoidance of doubt an Entry Allocation or an IP Entry Allocation with respect to a nomination of Balancing Gas pursuant to a Balancing Gas Buy shall be excluded from a Shipper's Initial Inputs and Final Inputs for the purpose of the Daily Imbalance Quantity calculation. An Allocation or IP Allocation in respect of a quantity of Natural Gas nominated as a result of a Balancing Gas Sell shall be included in a Shipper's Initial Input and Final Input (respectively) for the purpose of the Daily Imbalance Quantity calculation.

## 1.6 Daily Imbalance Charges

1.6.1 For the purposes of this Code:

- (a) "**First Tier Imbalance Quantity**" means that portion of a Shipper's Final Daily Imbalance Quantity in respect of a Day that is less than or equal to the Shipper Portfolio Tolerance for the Shipper on that Day;
- (b) "**Second Tier Imbalance Quantity**" means that portion of a Shipper's Final Daily Imbalance Quantity in respect of a Day that is greater than the Shipper Portfolio Tolerance for the Shipper on that Day;
- (c) "**First Tier Imbalance Price**" means a price calculated as follows for each Day:
  - (i) where the Final Daily Imbalance Quantity is positive:
    - (A) SAP (IBP) where there have been Natural Gas trades reported on the Trading Platform for that Day; and
    - (B) SAP (NBP) on a Day where there have not been any Natural Gas trades reported on the Trading Platform for that Day;
  - (ii) where the First Tier Imbalance Quantity is negative:
    - (A) SAP (IBP) where there have been Natural Gas trades reported on the Trading Platform for that Day; and
    - (B) SAP (NBP) where there have not been any Natural Gas trades reported on the Trading Platform for the Day.

(d) **“Second Tier Imbalance Price”** means a price calculated as follows for each Day:

(i) where the Final Daily Imbalance Quantity is positive:

For a Day	Second Imbalance (STIP) Tier Price
on which there have been trades in Natural Gas on the Trading Platform, SAP (IBP) is published and either the Transporter has not undertaken any Balancing Actions for the Day or any such Balancing Actions have been pursuant to the Balancing Service Contract.	SMPsell (IBP)
on which there have not been any trades of Natural Gas on the Trading Platform, SAP (IBP) is not published and either the Transporter did not undertake any Balancing Actions and/or any such Balancing Actions have been taken under the Balancing Service Contract.	SAP (NBP) x 0.965.
on which the Transporter undertakes a Market Balancing Action(s) by way of Market Balancing Transaction(s).	IBP Marginal Sell Price

(ii) where the Final Daily Imbalance Quantity is negative:

For a Day:	Second Imbalance (STIP) Tier Price
on which there have been trades in Natural Gas on the Trading Platform, SAP (IBP) is published and either the Transporter has not undertaken any Balancing Actions for the Day or any such Balancing Actions have been pursuant to the Balancing Service Contract.	SMPbuy (IBP)
on which there are no trades in Natural Gas on the Trading Platform, SAP (IBP) is not published and either the Transporter did not undertake any Balancing Actions and/or any	SAP (NBP) x 1.035 plus Imbalance Gas Transportation Costs.

such Balancing Actions have been taken under the Balancing Service Contract.	
on which the Transporter undertakes a Market Balancing Action(s) by way of Market Balancing Transaction(s)	IBP Marginal Buy Price

- (e) For the purpose of (c) and (d) above:
- (i) **SAP (NBP)** means the UK OCM System Average Price published by NGG in respect of the Day.
  - (ii) **“SAP (IBP)”** means the average price of trades of Natural Gas at the IBP on the Trading Platform in respect of the Day as published by the Transporter;
  - (iii) **“SMP<sub>buy</sub> (IBP)”** means  $SAP (IBP) \times 1.035$ ;
  - (iv) **“SMP<sub>sell</sub> (IBP)”** means  $SAP (IBP) \times 0.965$ ;
  - (v) **“IBP Marginal Buy Price”** is the greater of SMP<sub>buy</sub> (IBP) and the highest price paid by the Transporter for a Market Balancing Transaction which is a Balancing Gas Buy on the Day;
  - (vi) **“IBP Marginal Sell Price”** is the lesser of SMP<sub>sell</sub> (IBP) and the lowest price paid by the Transporter for a Market Balancing Transaction which is a Balancing Gas Sell on the Day.

1.6.2 Where a Final Daily Imbalance Quantity for a Shipper is either positive or negative, a Daily Imbalance Charge calculated in accordance with this Section 1.6 shall be payable by or credited to a Shipper, as set out in Part I (*Legal and General*) Section 11 (*Invoicing and Payment*).

1.6.3 Where a Shipper:

- (a) has a negative Final Daily Imbalance Quantity, it shall be liable to pay Daily Imbalance Charges calculated in accordance with Section 1.6.5;
- (b) has a positive Final Daily Imbalance Quantity, it shall be entitled to a credit in respect of Daily Imbalance Charges calculated in accordance with Section 1.6.5.

1.6.4 Where a Shipper has:

- (a) a First Tier Imbalance Quantity, the First Tier Imbalance Price shall be payable by or credited to that Shipper in respect of such First Tier Imbalance Quantity;
- (b) a Second Tier Imbalance Quantity:
  - (i) the First Tier Imbalance Price shall be payable by or credited to the Shipper in respect of the portion of the Final Daily Imbalance Quantity that is equal to the Shipper Portfolio Tolerance; and
  - (ii) the Second Tier Imbalance Price shall be payable by or credited to the Shipper in respect of the portion of the Final Daily Imbalance Quantity that is the Second Tier Imbalance Quantity.

1.6.5 The Daily Imbalance Charge shall be calculated by the Transporter for each Shipper for each Day in accordance with the following formula:

$$\text{DIC} = (\text{FTQ} * \text{FTIP}) + (\text{STQ} * \text{STIP})$$

where:

DIC = the Shipper's Daily Imbalance Charge for the Day;

FTQ = the Shipper's First Tier Imbalance Quantity for the Day;

FTIP = the First Tier Imbalance Price for the Day determined in accordance with Section 1.6.1(c)(i) where the Shipper's Final Daily Imbalance Quantity for the Day is positive; and in accordance with Section 1.6.1(c)(ii) where the Shipper's Final Daily Imbalance Quantity is negative.

STQ = the Shipper's Second Tier Imbalance Quantity for the Day; and

STIP = the Second Tier Imbalance Price for the Day calculated in accordance with Section 1.6.1(d)(i) where the Shipper's Final Daily Imbalance Quantity for the Day is positive and in accordance with Section 1.6.1(d)(ii) where the Shipper's Final Daily Imbalance Quantity is negative.

## 1.7 Shipper Portfolio Tolerance

1.7.1 The Shipper Portfolio Tolerance shall be a single absolute tolerance quantity of Natural Gas calculated in accordance with this Section 1.7.

1.7.2 In order to calculate the Shipper Portfolio Tolerance for each Shipper at each RNG Entry Point at which it is a Registered Shipper, a percentage tolerance ("**Entry Tolerance**") shall be applied in respect of a Shipper's Final Entry Allocation at each respective RNG Entry Point for a Day as follows:

Entry Point	Entry Tolerance %
RNG Entry	25

A Shipper shall not have any tolerance with respect to an Entry Point, an IP Ventry or an IP Entry save as expressly set out in this Section 1.7.

1.7.3 In order to calculate the Shipper Portfolio Tolerance for each Shipper, a percentage tolerance as specified in the table below ("**Exit Tolerance**") shall be applied to each such Shipper's Final Exit Allocations for a Day as follows:

- (a) to the Final DM Exit Allocation in respect of the DM Offtakes at which the Shipper is the Registered Shipper; and/or
- (b) an "**NDM Forecast Tolerance**" in accordance with Section 1.7.5 to the Final NDM Exit Allocation in respect of the NDM Supply Points at which the Shipper is the Registered Shipper; ]

A Shipper shall not have any Exit Tolerance with respect to:

- (i) LDM Offtake(s); or
- (ii) a IP VExit; or
- (iii) Sub-Sea I/C Offtake; or
- (iv) the IP CSEP;

save as expressly provided in this Section 1.7.3 and 1.8.

<b>Sector/Size(Annual Quantity)</b>	<b>Exit Tolerance %</b>
LDM connected to gas fired power station (LDM GFPS) >1,500,000,000 kWh (LDM 1)	LDM GFPS Tolerance
DM	10 of DM Exit Allocations
NDM	NDM Forecast Tolerance

1.7.4 The Transporter shall calculate the Shipper Portfolio Tolerance in respect of each Day for each Registered Shipper in accordance with the following formula:

$$SPT = \sum (10 \% \text{ of } DM_{All}) + (NDM_{(FT)}) + 25\% \text{ of } RNG_{All} + LDM \text{ GFPS}_{Tot}$$

where:

SPT = the Shipper Portfolio Tolerance applicable to a Shipper for the Day;

LDM GFPS<sub>Tot</sub> = the LDM GFPS Tolerance calculated in accordance with Section 1.8.

DM<sub>All</sub> = the Final DM Exit Allocation for a Shipper in respect of DM Offtakes in respect of the Day;

NDM<sub>(FT)</sub> = the NDM Forecast Tolerance as calculated in accordance with Section 1.7.5

RNG<sub>All</sub> = the Final Entry Allocation at each RNG Entry Point for a Shipper.

For the avoidance of doubt, LDM Allocations, Entry Allocations, Sub-Sea I/C Offtake Allocations, IP CSEP Allocations IBP Allocations and Allocations in respect of Shrinkage Gas under a Shrinkage Gas Contract and/or Balancing Gas under a Balancing Gas Contract shall not be included in the calculation of the Shipper Portfolio Tolerance.

1.7.5 A tolerance quantity ("**NDM Forecast Tolerance**") shall apply in the event that a Shipper's Final NDM Exit Allocation varies from the final NDM Nomination Advice provided by the Transporter to such Shipper in respect of the Day and:

- (a) the Shipper has a Valid Nomination(s) in accordance with the initial and all subsequent NDM Nomination Advices issued by the Transporter in respect of that Day; and
- (b) either:
  - (i) the Shipper's Final Daily Imbalance Quantity for the Day is positive and the Final NDM Exit Allocation for the Day is less than the last prevailing final NDM Nomination Advice on the Day; or
  - (ii) the Shipper's Final Daily Imbalance Quantity for the Day is negative and the Final NDM Exit Allocation for the Day is greater than the last prevailing final NDM Nomination Advice on the Day.

1.7.6 The amount of the NDM Forecast Tolerance for a Shipper for a Day shall be a quantity which shall be equal to the difference between the prevailing NDM Nomination Advice for the Day and the Shipper's Final NDM Exit Allocation for the Day.

## 1.8 **Calculation of IP Entry Tolerance and GFPS Tolerance**

### 1.8.1 **IP Entry Tolerance on a Non-OBA Day**

A Shipper at an IP Entry Point shall be entitled to a tolerance quantity a ("**IP Non-OBA Tolerance Quantity**") for a Non OBA Day at the IP Entry Point which shall be equal to the difference between the sum of the Shipper's IP Nomination Confirmed Quantities at the IP Entry Point for the Day and the Shipper's Final IP Entry Allocation(s) at that IP Entry Point for that same Day; and

- (i) where the aggregate of all Shipper's Final IP Entry Allocations at the affected IP Entry Point exceeds the Aggregate IP Entry Confirmed Quantity for the Non-OBA Day, the IP Non-OBA Tolerance Quantity shall be added to the Shipper Portfolio Tolerance of each Shipper that has a Final Daily Imbalance Quantity that is positive;
- (ii) where the aggregate of all Shipper's Final IP Entry Allocation(s) is less than the Aggregate IP Entry Confirmed Quantity for that OBA Day the IP Non-



OBA Tolerance Quantity shall be added to the Shipper Portfolio Tolerance of each Shipper that has a Final Daily Imbalance Quantity that is negative.

#### 1.8.2 Calculation of LDM GFPS Tolerance

A Shipper which is a registered Shipper at a LDM Offtake at which the End User Facilities comprise a gas fired power station may apply to the Transporter for an additional tolerance quantity (the “**LDM GFPS Tolerance**”) in respect of the LDM Offtake for a Day when:

- (a) a dispatch notice requiring a reduction or increase in generation at the End User Facilities for that Day (“**Dispatch Notice**”) is issued by the operator of the electricity grid in Ireland in respect of the End Users Facilities at the LDM Offtake after 02:00 on the Day;
- (b) in the period prior to the issue of the Dispatch Notice the sum of the Shippers Entry Nominations, IP Nomination Confirmed Quantities and Valid IBP Buy Nominations is substantially equal to the sum of the Shippers Valid Exit Nominations, Valid IP VExit Nominations, Valid IBP Sell Nominations and Valid IP CSEP Nominations for that Day; and
- (c) either:
  - (i) the Dispatch Notice instructed a reduction in generation at the applicable End User Facilities in respect of the Day; the Shipper’s Final Daily Imbalance Quantity for the Day is positive and the Shippers prevailing Exit Nomination at the end of the Day exceeds the Shippers Final Exit Allocation at the applicable LDM Offtake; and
  - (ii) the Dispatch Notice instructed an increase in generation at the End Users Facilities for the Day; the Shipper’s Final Daily Imbalance Quantity for the Day is negative and the Shippers prevailing Exit Nomination at the end of the Day is less than the Shippers Final Exit Allocation at the applicable LDM Offtake.

The amount of the LDM GFPS Tolerance (if any) for the Shipper for the Day shall be such quantity as shall be determined by the Transporter up to such quantity as shall equal to the difference between the prevailing LDM Exit Nomination and the Shipper’s

Final LDM Exit Allocation at the applicable LDM Offtake for the Day.

## 1.9 After Day Trades

- 1.9.1 A Shipper ("**Transferor Shipper**") may after a Day trade all or part of its Daily Imbalance Quantity in respect of such Day with another Shipper ("**Transferee Shipper**") which has an opposing Daily Imbalance Quantity for the same Day ("**After Day Trade**" or "**ADT**") in accordance with this Section 1.9.

For the avoidance of doubt, a Shipper with a Daily Imbalance Quantity shall only be permitted to trade any of its Daily Imbalance Quantity in respect of a Day with another Shipper that has an opposing Daily Imbalance Quantity with respect to the same Day.

- 1.9.2 "**After Day Trade Sell**" or "**ADT<sub>sell</sub>**" means an After Day Trade resulting in a reduction in a positive Initial Daily Imbalance Quantity (or, if relevant, a Revised Daily Imbalance Quantity) for a Shipper.
- 1.9.3 "**After Day Trade Buy**" or "**ADT<sub>buy</sub>**" means an After Day Trade resulting in a reduction in a negative Initial Daily Imbalance Quantity (or, if relevant, a Revised Daily Imbalance Quantity) for a Shipper.
- 1.9.4 In order to transact an ADT the Transferor Shipper shall submit a request ("**ADT Request**") to the Transporter which shall specify the information required by the Transporter to process the ADT Request as set out in Schedule 3 Part 1 including:
- (a) the identity (including Shipper ID) of each of the Transferor Shipper and the Transferee Shipper;
  - (b) the Day for which the ADT is to be transacted; and
  - (c) the quantity (in kWh) of the Transferor Shipper's Daily Imbalance Quantity in respect of such Day to be traded.
- 1.9.5 The Transferor Shipper may submit an ADT Request to the Transporter at any time after 17:30 hours on D+1 and before 17:00 hours on M+7.
- 1.9.6 In order for the Transporter to process an ADT Request, the Transferee Shipper shall first notify the Transporter that it accepts the terms of the ADT request submitted by the Transferor Shipper.
- 1.9.7 The Transporter will reject an ADT Request for any of the following reasons:

- (a) the information required pursuant to this Section 1.9 is not specified by the Transferor Shipper;
  - (b) the time of the submission of the ADT Request is before 17:30 hours on D+1 or after 17:00 hours on M+7;
  - (c) the Transferee Shipper has not notified the Transporter of its acceptance of the ADT Request by 17:00 hours on M+7;
  - (d) the ADT specifies a Daily Imbalance Quantity which is in excess of the Transferor's Daily Imbalance Quantity or the Transferee's Daily Imbalance Quantity in respect of the Day;
  - (e) the effect of the ADT would be to increase the Daily Imbalance Quantity of either the Transferor Shipper or the Transferee Shipper in respect of a Day; or
  - (f) if the effect of the ADT would be to convert the Daily Imbalance Quantity of either the Transferor Shipper or the Transferee Shipper from a positive imbalance to a negative imbalance, or vice versa.
- 1.9.8 If the Initial Daily Imbalance Quantity (or, if relevant, the Revised Daily Imbalance Quantity) of the Transferor Shipper or of the Transferee Shipper changes as a result of a change to either Shipper's Entry Allocation or Exit Allocation between 16:00 hours on D+1 and 16:00 hours on D+5, then any ADT(s) transacted by the affected Shippers prior to any such change shall be cancelled by the Transporter without prejudice to such Shipper's right to re-submit such ADT(s). For the avoidance of doubt, the affected Shippers may resubmit an ADT Request up until 17:00 hours on M+7 in accordance with this Section 1.9.
- 1.9.9 The Transporter shall not be obliged in any way to assist Shippers in identifying any potential counterparties to ADTs.
- 1.9.10 The Transporter shall calculate and make available to Shippers the sum of the aggregate Final Daily Imbalance Quantities for all Shippers in respect of a Day. This sum shall be in the form of a single number representing the net imbalance for all Shippers on the Day together with an indication of whether the net imbalance is positive (long) or negative (short).
- 1.9.11 Where a Shipper has completed an ADT, such ADT shall not change any of the Shipper's Exit Allocations for the Day.

## 1.10 Scheduling Charges

### 1.10.1 Entry Scheduling Charges

(a) For the purposes of this Code:

- (i) "**Entry Scheduling Charge**" means a charge calculated in accordance with Section 1.10.2 payable by each Shipper in respect of each such Shipper's Entry Scheduling Charge Quantities;
- (ii) "**Entry Scheduling Quantity**" means a quantity equal to the absolute difference (in kWh) between a Shipper's Valid Entry Nomination, Valid VEntryP Nomination or Valid Entry Renomination or Valid VEntryP Renomination at an individual Entry Point or VEntryP and a Shipper's Final Entry Allocation for that Entry Point or Final VEntryP Allocation at a VEntryP in respect of a Day;
- (iii) "**Entry Scheduling Tolerance**" means a quantity of Natural Gas equal to three (3) per cent of the Valid Entry Nomination, Valid VEntryP Nomination or Valid Entry Renomination or Valid VEntryP Renomination at each Entry Point or VEntryP made on a Day by a Shipper plus where applicable the quantity of Natural Gas equal to the applicable Entry Point Variance Tolerance in respect of such Shipper at the relevant Entry Point on the Day; and
- (iv) "**Entry Scheduling Charge Quantity**" means a quantity of Natural Gas calculated by the Transporter for each Registered Shipper at each Entry Point for a Day in accordance with the following formulae:

- (A) where a Shipper's Final IP Entry Allocation, Final Entry Allocation or Final IP VEntry Allocation for a Day at an IP Entry Point or at an Entry Point or at an IPVEntry is greater than the Shipper's IP Nomination Confirmed Quantity Valid Entry Nomination or Valid IPVEntry Nomination or Valid Entry Renomination or the IP VEntry or Valid IP VEntry Renomination at the Entry Point for the Day (as the case may be):

$$\text{ESCQ}_{\text{Entry}} = (\text{ALL}_{\text{Entry}} - (\text{NOM}_{\text{Entry}} + \text{TOL}_{\text{Entry}})); \text{ OR}$$

- (B) where a Shipper's IP Nomination Confirmed Quantity Valid Entry Nomination or IP VEntry Nomination Confirmed Quantity or Valid Entry Renomination or IP VEntry Renomination for a Day at an IP Entry Point or at an Entry Point or at an IPVEntry is greater than the Shipper's Final IP Entry Allocation, Final Entry Allocation or Final IP VEntry Allocation (as the case may be) for the Day:

$$\mathbf{ESCQ_{Entry} = (NOM_{Entry} - (ALL_{Entry} + TOL_{Entry}))}$$

where:

$ESCQ_{Entry}$  = the Shipper's Entry Scheduling Charge Quantity for the Day at the IP Entry Point, the Entry Point or IP VEntry;

$ALL_{Entry}$  = the Shipper's Final IP Entry Allocation or Final IP VEntry Allocation for the Day at the IP Entry Point, or the IP VEntry (as applicable);

$NOM_{Entry}$  = the Shipper's IP Entry Nomination Confirmed Quantity, Entry Nomination, IP VEntry Nomination Confirmed Quantity or Valid Entry Renomination or Valid IP VEntry Renomination for the Day at the Entry Point; and

$TOL_{Entry}$  = the Entry Scheduling Tolerance applicable to the Shipper on the Day at the IP Entry Point or the IP VEntry.

- 1.10.2 The Entry Scheduling Charge payable by each Shipper at each Entry Point in respect of a Day shall be calculated by the Transporter in accordance with the following formula:

$$\mathbf{ESC_{Entry} = ESCQ_{Entry} * (5\% * SAP)}$$

where:

$ESC_{Entry}$  = the Entry Scheduling Charge;

$ESCQ_{Entry}$  = a Shipper's Entry Scheduling Charge Quantity for the Day at an Entry Point; and

SAP = SAP (IBP) or, where SAP (IBP) is not published for the Day SAP (NBP).

### 1.10.3 Exit Scheduling Charges

(a) For the purposes of this Code:

- (i) "**Exit Scheduling Charges**" means charges payable by each Shipper in respect of each Exit Allocation, Sub-Sea I/C Offtake Allocation, CSEP Exit Allocation and IP CSEP Offtake Allocation or IP VExit Allocation in respect of which such Shipper has an Exit Scheduling Charge Quantity, such charges to be calculated in accordance with Section 1.10.4;
- (ii) "**Exit Scheduling Tolerance**" means a quantity of Natural Gas equal to the applicable percentage of the Valid Exit Nominations or the Valid Exit Renominations, the Valid Sub-Sea I/C Offtake Nominations or the Valid Sub-Sea I/C Offtake Renominations or the Valid CSEP Exit Nomination or Valid CSEP Exit Renomination or IP CSEP Nomination Confirmed Quantity or IP VExit Nomination Confirmed Quantity or IP VExit Renomination made in respect of a Day by a Shipper. The applicable percentage shall be as set out in the following table:

Sector	%
LDM (including Multiple Shipper LDM)	10
DM	20
NDM	20
CSEP Exit	3
IP CSEP	3
Sub-Sea I/C Offtake	10

- (iii) "**Exit Scheduling Charge Quantity**" means a quantity of Natural Gas calculated by the Transporter for each Shipper in accordance with the following formulae:
- (A) where on a Day a Shipper's Final Exit Allocation or Final CSEP Exit Allocation, or Final IP CSEP Offtake Allocation or Sub-Sea I/C Offtake Allocation or IP VExit Allocation is greater than its Valid Exit Nomination, Valid Exit Renomination, Valid CSEP Exit Nomination, Valid CSEP Exit Renomination or Valid IPCSEP Offtake Nomination

Confirmed Quantity or Valid Sub-Sea I/C Offtake Nomination or Valid Sub-Sea I/C Offtake Renomination; IP VExit Nomination or IP VExit Renomination (a) for each LDM Offtake; or (b) in respect of such Shipper's DM Offtakes; or (c) in respect of the onward delivery of Natural Gas to such Shipper's NDM Supply Points; or (d) in respect of a Connected System Exit Point; or (e) in respect of the IPCSEP or (f) in respect of the Sub-Sea I/C Offtake or (g) in respect of a IP VExit:

$$ESCQ_{EXIT} = (ALL_{Exit} - NOM_{Exit}) - (Y\% * NOM_{Exit}); \text{ OR}$$

- (B) where on a Day a Shipper's Final Exit Allocation, Final CSEP Exit Allocation or Final IPCSEP Offtake Allocation or Final Sub-Sea I/C Offtake Allocation or Final IP VExit Allocation is less than its Valid Exit Nomination, Valid Exit Renomination, Valid CSEP Exit Nomination, Valid CSEP Exit Renomination, IP CSEP Offtake Nomination Confirmed Quantity, or Valid Sub-Sea I/C Offtake Nomination or Valid Sub-Sea I/C Offtake Renomination or IP VExit Nomination (a) for each LDM Offtake; or (b) in respect of such Shipper's DM Offtakes; or (c) in respect of the onward delivery of Natural Gas to such Shipper's NDM Supply Points; or (d) in respect of a Connected System Exit Point; or (e) in respect of the IP CSEP; or (f) in respect of the Sub-Sea I/C Offtake, or (g) in respect of IP VExit:

$$ESCQ_{Exit} = (NOM_{Exit} - ALL_{Exit}) - (Y \% * NOM_{Exit})$$

where:

$ESCQ_{Exit}$  = the Shipper's Exit Scheduling Charge Quantity for the Day in respect of the Shipper's LDM Offtake or in respect of the Shipper's DM Offtake(s), in respect of the onward delivery of Natural Gas to the Shipper's NDM Supply Points, Connected System Exit Point, IP CSEP, at the Sub-Sea I/C Offtake or at the IP VExit (as the case may be);

$ALL_{Exit}$  = the Shipper's Final Exit Allocation for a Day in respect of the Shipper's LDM Offtake(s) or in

respect of the Shipper's DM Offtake(s), in respect of the onward delivery of Natural Gas to the Shipper's NDM Supply Points, at a Connected System Exit Point at the IP CSEP, at the Sub-Sea I/C Offtake or at the IP VExit (as the case may be);

$NOM_{Exit}$  = the Shipper's Valid Exit Nomination Valid Exit Renomination Valid CSEP Exit Nomination, Valid CSEP Exit Renomination, IP CSEP Offtake Nomination Confirmed Quantity or Valid Sub-Sea I/C Offtake Nomination or Valid Sub-Sea I/C Offtake Renomination or IP VExit Nomination Confirmed Quantity for a Day in respect of the Shipper's LDM Offtake(s) or in respect of the Shipper's DM Offtake(s), in respect of the onward delivery of Natural Gas to the Shipper's NDM Supply Points, at the Connected System Exit Point, at the IP CSEP, at the Sub-Sea I/C Offtake or at the IP VExit (as the case may be); and

$Y\%$  = the applicable Exit Scheduling Tolerance as set out in Section 1.10.3(a)(ii),

provided always that if a NDM Shipper has consistently achieved a Valid Exit Nominations and Valid Exit Renominations in accordance with the NDM Nomination Advice and NDM Renomination Advice(s) issued by the Transporter the Exit Scheduling Charge Quantity in respect of the relevant NDM Exit Allocation shall be zero.

- 1.10.4 The Exit Scheduling Charge payable by each Shipper in respect of a Day will be calculated by the Transporter in accordance with the following formula:

$$ESC_{Exit} = ESCQ_{Exit} * (5\% * SAP)$$

where:

$ESC_{Exit}$  = the Exit Scheduling Charge;

$ESCQ_{Exit}$  = a Shipper's Exit Scheduling Charge Quantity for a Day at an Exit Point; and

$SAP$  = SAP (IBP) or, where SAP (IBP) is not published for the Day SAP (NBP).



## 1.11 Publication of Information

- 1.11.1 The Transporter shall, in respect of each month, publish the following information:
- (a) the date, location and volume of Balancing Actions taken;
  - (b) the First Tier Imbalance Price and the Second Tier Imbalance Price;
  - (c) the Entry Scheduling Charge and Exit Scheduling Charge;
  - (d) the aggregate Daily Imbalance Charges applied; and
  - (e) the aggregate Balancing Charges incurred.
- 1.11.2 The information specified in Section 1.11.1 shall be published by the Transporter monthly in arrears.
- 1.11.3 Generalised balancing criteria shall be published by the Transporter from time to time.

## 2. SHRINKAGE

### 2.1 Definitions

For the purposes of this Code:

- 2.1.1 "**Distribution System Shrinkage Gas**" means that Shrinkage Gas attributed to the Distribution System in accordance with this Section 2;
- 2.1.2 "**Own Use Gas**" means Natural Gas which is used by the Transporter for the operation of the Transportation System or any localised part thereof including at compressor stations and/or for pre-heating and venting purposes;
- 2.1.3 "**Shrinkage Gas**" means Own Use Gas and/or Natural Gas required to replace Unaccounted For Gas;
- 2.1.4 "**Transmission System Shrinkage Gas**" means that Shrinkage Gas attributed to the Transmission System in accordance with this Section 2; and
- 2.1.5 "**Unaccounted For Gas**" means Natural Gas which is lost or otherwise unaccounted for from the Transportation System or any localised part thereof.

### 2.2 Shrinkage Gas Contracts

- 2.2.1 The Transporter shall enter into one or more contracts for the provision of Shrinkage Gas (each a "**Shrinkage Gas Contract**") in accordance

with the provisions of this Section 2 to provide for the delivery to the Transportation System of Natural Gas in respect of Shrinkage Gas. The Transporter shall retain and make available Entry Capacity at an Entry Point (which Entry Point shall be specified in the Shrinkage Gas Contract) to facilitate Nominations, Renominations and deliveries of Shrinkage Gas to the Transportation System pursuant to the Shrinkage Gas Contract. For the avoidance of doubt Entry Capacity which the Transporter makes available to facilitate Nominations, Renominations and deliveries of Shrinkage Gas shall not form part of a Shipper's Active Entry Capacity but shall at all times be available only for the purpose of Nominations, Renominations and deliveries of Shrinkage Gas.

2.2.2 The Transporter shall use reasonable endeavours to avoid unnecessary costs associated with obtaining Shrinkage Gas and shall award the Shrinkage Gas Contract(s) following a competitive tender.

2.2.3 A Shrinkage Gas Contract may either:

- (a) form a discrete, clearly identifiable part of a Balancing Gas Contract; or
- (b) be a stand alone contract distinct from a Balancing Gas Contract.

For the avoidance of doubt nothing in this Section 2.2.3 shall be construed as preventing a party from participating in a tender process (in accordance with its terms) solely in respect of a Shrinkage Gas Contract or a Balancing Gas Contract.

2.2.4 Following award of a Shrinkage Gas Contract, the Transporter shall use reasonable endeavours to provide Shippers with the unit cost of Shrinkage Gas or the basis of calculation of the unit cost of such Shrinkage Gas to be purchased for the following Gas Year.

2.2.5 Before the start of each Gas Year, the Transporter shall provide Shippers with the Transporters good faith best estimate of the quantity and cost of Shrinkage Gas to be purchased for the following Gas Year.

## 2.3 **Shrinkage Costs**

2.3.1 Subject to the Transporter having acted as a Reasonable and Prudent Operator in respect of the acquisition of Shrinkage Gas, and taking into account Shippers within day flexibility requirements, the Transporter shall be Cash Neutral in respect of the provision of Shrinkage Gas and accordingly, all costs associated with purchasing Shrinkage Gas (other than Shrinkage Gas allocated to PTL pursuant to Section 2.4.5) together with the transportation (including Capacity Charges), administration and procurement costs of securing the same, any audit

costs which may be incurred under Section 2.5.3 and any other costs arising in connection with any of the matters listed above (collectively "**Shrinkage Costs**") shall be recoverable by the Transporter in accordance with Section 2.3.2 and Section 1.4. (as applicable).

- 2.3.2 Shrinkage Costs shall be recoverable by the Transporter as follows:
- (a) each Shipper shall be liable to pay to the Transporter on a Monthly basis the cost in respect of any Shrinkage Gas apportioned to such Shipper pursuant to Section 2.4.3 together with the cost of transportation (including Capacity Charges) payable in respect of such quantity of Shrinkage Gas pursuant to Section 2.5.2);
  - (b) all other Shrinkage Costs (excluding the costs actually recovered by the Transporter pursuant to Section 2.5.2) *and excluding the costs actually recovered by the Transporter by way of I/C Inventory Space Charges attributable to Shrinkage Gas*) shall be recoverable from Shippers pro-rata to their relevant Final IP Entry, Final Entry Allocations and Final Exit Allocations (including Final IP CSEP Offtake Allocation), Final IP VEntry Allocation and Final IP VExit Allocation for the Gas Year in accordance with Section 1.4; and/or
  - (c) Shrinkage Costs in respect of Distribution System Shrinkage Gas shall, for so long as they are included in the Distribution Tariff, be recoverable through the Distribution Tariff. If such Shrinkage Costs are not included in the Distribution Tariff they shall be recoverable from Shippers pro rata to their relevant Supply Point Allocations for that Gas Year.
- 2.3.3 At the end of a Gas Year the Transporter shall, in respect of Shrinkage Costs which are not recoverable in any applicable Tariff, reconcile the estimated Shrinkage Gas and the estimated Shrinkage Costs with the actual Shrinkage Gas and actual Shrinkage Costs (as appropriate) for the Gas Year. The Transporter shall, based on such reconciliation, impose additional or lesser charges upon Shippers for such Gas Year in proportion to their respective Final Entry Allocations, Final Exit Allocations, Final IP CSEP Offtake Allocations at the IP CSEP, Final IP VEntry Allocations and/or Final IP VExit Allocations and, where relevant, Final Supply Point Allocations for that Gas Year (as applicable) and such amounts shall be treated as an Annual Disbursements Account Payment.

## 2.4 Calculation of Shrinkage Gas

2.4.1 The Transporter shall determine the Shrinkage Gas required for the Day as follows:

- (a) the quantity of Shrinkage Gas estimated by the Transporter to be required for the Day in respect of the Distribution System which shall be based on the Transporter's best estimate of the Distribution System consumption of Natural Gas for the Day multiplied by the applicable Distribution System Shrinkage Factor ("**Estimated Distribution System Shrinkage Gas**");
- (b) the quantity of Shrinkage Gas estimated by the Transporter to be required for the Day in respect of the Transmission System which shall be based on the Transporter's best estimate of Own Use Gas and Unaccounted For Gas in respect of the Transmission System ("**Estimated Transmission System Shrinkage Gas**"); and
- (c) the quantity of Shrinkage Gas estimated by the Transporter to be required for the Day in respect of the Transportation System ("**Estimated Transportation System Shrinkage Gas**") shall be the aggregate of the Estimated Distribution System Shrinkage Gas and the Estimated Transmission System Shrinkage Gas for the Day;

2.4.2 The Transporter shall request delivery to the Transportation System of a quantity of Natural Gas equal to the Estimated Transportation System Shrinkage Gas in accordance with the provisions of the applicable Shrinkage Gas Contract.

### 2.4.3 Shrinkage Gas Apportionment and Attribution

- (a) Where Shrinkage Gas is provided by a Shipper, Nominations with respect to Shrinkage Gas in respect of a Day shall be made separately and independently from any other Nominations made by such Shipper in respect of a Day. Where the person providing Shrinkage Gas is not a Shipper, the Transporter shall for the purposes of the provision of Shrinkage Gas to the Transportation System in respect of a Day be entitled to make Nominations and receive Allocations in respect of Shrinkage Gas. The Transporter shall, where the Shrinkage Gas Contract so provides be entitled to submit Nominations in respect of Shrinkage Gas for and on behalf of the Shipper.
- (b) The quantity of Natural Gas allocated with respect to a Nomination of Shrinkage Gas referred to in Section 2.4.3(a)

shall be attributed to the Distribution System and the Transmission System in accordance with the remaining provisions of this Section 2.4.

- (c) The quantity of Shrinkage Gas attributable to the Distribution System for a Day ("**Initial Distribution System Shrinkage Gas Attribution**") shall be calculated on D+1 by multiplying the actual quantity of Natural Gas consumed by the Distribution System for the Day (calculated in accordance with Part D (*Nominations, Allocations and NDM Supply Point Reconciliation*) Section 2.7.3(b)) by the Distribution System Shrinkage Factor.
- (d) The quantity of Shrinkage Gas attributed to the Distribution System in respect of a Day shall be calculated by the Transporter on M+5 ("**Final Distribution System Shrinkage Gas Attribution**") by multiplying the actual quantity of Natural Gas consumed by the Distribution System for the Day by the Distribution System Shrinkage Factor.
- (e) The quantity of Shrinkage Gas attributable to the Transmission System for a Day shall be calculated by the Transporter on D+1 ("**Initial Transmission System Shrinkage Gas Attribution**") and again on M+5 ("**Final Transmission System Shrinkage Gas Attribution**"), in each case in accordance with the following formula:

$$TS = SA - (DS + VIPS)$$

where:

TS = the Initial Transmission System Shrinkage Gas Attribution or the Final Transmission System Shrinkage Gas Attribution, as appropriate;

SA = the Allocation in respect of Shrinkage Gas on D+1 or M+5, as appropriate; and

DS = the Initial Distribution System Shrinkage Gas Attribution or the Final Distribution Shrinkage Gas Attribution, as appropriate and;

VIPS = *the quantity of Shrinkage Gas which the Transporter determines to have been utilised at or respect of the VIP.*

- 2.4.4 Where there is a difference between the Estimated Distribution System Shrinkage Gas and the Initial Distribution System Shrinkage Gas

Attribution resulting in there being a difference between the Estimated Transmission System Shrinkage Gas and the Initial Transmission System Shrinkage Gas Attribution then the difference will be deemed to have been provided through increasing or decreasing System Stock. The Transporter shall correct this difference by recalculating the Estimated Transmission System Shrinkage Gas on D+2. Any residual differences that emerge after D+2 shall be corrected in accordance with Section 2.3.3.

#### 2.4.5 Transmission System Shrinkage Gas Apportionment

For the purpose of apportioning Transmission System Shrinkage Gas among Shippers:

- (a) the Transmission System shall be deemed to be divided into the following two (2) components:
  - (i) that part of the Transmission System onshore in Scotland between the meters measuring the flow of Natural Gas into the Transmission System at the Moffat Entry Point and the meters measuring the flow of Natural Gas out of the Transmission System at Brighthouse Bay and Twynholm ("**Onshore Scotland Transmission System**"); and
  - (ii) that part of the remainder of the Transmission System from and including the meter located at Brighthouse Bay, including the whole of the Transmission System onshore in Ireland and any other Entry Points thereto ("**Sub-Sea and Ireland Transmission System**");
- (b) the quantity of Transmission System Shrinkage Gas utilised for the Onshore Scotland Transmission System shall be apportioned pro rata, on a Monthly throughput basis, between PTL and Shippers utilising the Onshore Scotland Transmission System for:
  - (i) onward transmission of Natural Gas to Northern Ireland ; and
  - (ii) for onward transmission utilising the Sub-Sea and Ireland Transmission System; and
- (c) save in respect of the proportion of Transmission System Shrinkage Gas attributed to PTL *or to the operation of the VIP*, the quantity of Transmission System Shrinkage Gas utilised for the Sub-Sea and Ireland Transmission System, together with that quantity of Transmission System Shrinkage Gas utilised in

respect of the Onshore Scotland Transmission System allocable to Shippers also utilising the Sub-Sea and Ireland Transmission System, shall be apportioned pro rata, on a Monthly throughput basis, among the Shippers on the Sub-Sea and Ireland Transmission System; and

- (d) Shippers which are Registered Shippers at a RNG Entry Point shall be treated as Shippers on the Sub-Sea and Ireland Transmission System for the purpose of this Section 2.4.5.

Quantities of Natural Gas allocated to the Shipper(s) at the Sub-Sea I/C Offtake shall be disregarded in calculating such Shipper's monthly throughput (provided that such Shipper's throughput at the Moffat Entry Point is at least equal to the monthly throughput at the Sub-Sea I/C Offtake for that month).

## 2.5 Accounting for Shrinkage Gas

- 2.5.1 The Transporter shall keep full and accurate records in respect of the quantity of Natural Gas used each Month as Transmission System Shrinkage Gas and Distribution System Shrinkage Gas.
- 2.5.2 The Transporter shall include in the Monthly Invoice issued to a Shipper in accordance with Part I (*Legal and General*) Section 11 (*Invoicing and Payment*) the cost of the quantity of Transmission System Shrinkage Gas apportioned to such Shipper in accordance with Section 2.4.5(c) along with the cost of transportation (including Capacity Charges) payable in respect of such quantity of Transmission System Shrinkage Gas.
- 2.5.3 The Transporter shall appoint an appropriate, internationally recognised professional entity as approved by the Commission and provide to such entity all reasonable information such as to allow such entity to audit:
  - (a) the quantities of Transmission System Shrinkage Gas and Distribution System Shrinkage Gas;
  - (b) where relevant, the apportionment of Transmission System Shrinkage Costs and Distribution System Shrinkage Costs among the Shippers in accordance with this Code; and
  - (c) the cost to the Transporter of securing (but not the price of) the Shrinkage Gas Contracts, recognising that such contracts will be awarded in accordance with Section 2.2.2.
- 2.5.4 A summary of the audit report shall be made available to Shippers.

## 2.6 **Distribution System Shrinkage Factor**

- 2.6.1 The Transporter may recalculate the Distribution System Shrinkage Factor on an annual basis.
- 2.6.2 Where the Distribution System Shrinkage Factor is recalculated then it shall, with the approval of the Commission, apply from the start of the subsequent Gas Year.
- 2.6.3 The recalculation of the Distribution System Shrinkage Factor shall utilise data for the twelve (12) Month period to the end of July in the then current Gas Year.
- 2.6.4 The Distribution System Shrinkage Factor shall be calculated in accordance with a methodology approved by the Commission.

## 2.7 **Publication of Shrinkage Information**

The Transporter shall publish aggregate monthly volumes of Shrinkage Gas monthly in arrears.



### **SCHEDULE 3**

#### **Part 1**

#### **ADT Request**

- (a) the identity of the Transferor Shipper and the Transferee Shipper;
- (b) the Day for which the ADT is to be transacted; and
- (c) the quantity (in kWh) of the Transferor Shipper's Daily Imbalance Quantity in respect of such Day to be traded.