

*Revision 4.0*

# **OPERATIONS MANUAL**

## **APPENDIX B**

**to**

**STANDARD TERMS AND CONDITIONS**

**for**

**TRANSPORTATION**

**of**

**GAS**

**In the**

**OFFSHORE PIPELINES**

**to**

**the Danish West Coast**

**Date: 24 September 2018**

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## 1 APPLICABILITY

This Appendix B does not regulate all operational issues, which can arise as a result of any Transportation Agreement and the Standard Terms and Conditions, but is exclusively intended for regulating operational issues, which may occur on a regular basis.

## 2 NOMINATIONS AND RENOMINATIONS

### 2.1 Format Requirements

The Shipper shall submit Nominations and Renominations (NOMINT-message) containing the information described in the Message Guide published on the Website. The Shipper shall choose from one of the following file formats:

- A flat file format as produced by the Operator's Microsoft Excel nomination spread sheet forwarded to the Shipper; or
- XML format

Flat file formats shall be sent by e-mail and XML formats shall be submitted by using the AS2 protocol.

A submission of Nominations and Renominations shall contain the following information per Shipper Code Pair:

- the Shipper Code Pair submitted in the order of the shipper code in the Transportation System followed by a hyphen followed by the shipper code in the Transmission System, i.e. order of flow direction (e.g. OS222222-DS444444) and;
- 24 numerically positive integer values (or zero) covering each Hour in a Gas Day. However only 23 values on Gas Days with transition to summer time and 25 values on Gas Days with transition to winter time. In case of Renominations only information related to future Hours (with due consideration to the nomination lead time) is needed. The values represent kWh.

The Operator shall submit Approved Nominations (NOMRES-message). A submission of Approved Nominations shall contain similar information per Shipper Code Pair as valid for Nominations/Renominations.

### 2.2 Nominations

No later than 14:00 hours LET on each Gas Day, the Operator shall have received Nominations from the Shipper with information on the Quantities of Gas, expressed in

kWh, that the Shipper requests to be redelivered at the Redelivery Point each Hour of the immediate following Gas Day. The Nominations shall be made per Shipper Code Pair (e.g. if the Shipper has notified 3 Shipper Code Pairs to the Operator, the Shipper shall submit 3 full sets of Nominations).

If the submitted Nominations do not comply with the format requirements in Article 2.1, the Operator will use the Shipper's latest submitted Nominations that comply with the format requirements.

Before 16:00 hours LET on each Gas Day, the Operator will notify the Shipper of the Approved Nominations for the immediate following Gas Day.

The Approved Nominations may differ from the Nominations due to the check procedures described in Articles 3 and 4.

### 2.3 Renominations

The Shipper has the right to revise all or part of its Approved Nominations with two full Hours lead-time by submitting Renominations to the Operator, e.g. Renominations received by the Operator at 18:25 hours LET shall be valid from 21:00 hours LET on the same Gas Day.

The first deadline for the Operator to have received such Renominations shall be 16:00 hours LET on the Gas Day prior to the Gas Day covered by the Renominations.

The second deadline for the Operator to have received such Renominations shall be 18:00 hours LET on the Gas Day prior to the Gas Day covered by the Renominations.

The following deadlines for the Operator to have received such Renominations shall be the last minute in any full Hour between 18:00 hours LET on the Gas Day prior to the Gas Day covered by the Renominations and until 03:00 hours LET on Gas Day covered by the Renominations.

If the Renominations do not comply with the format requirements in Article 2.1, the Operator will reject the Renominations.

The Operator will endeavour to submit the Approved Nominations to the Shipper within 50 minutes after lapse of the Hour in which the Operator has received the Renominations.

The Approved Nominations will at latest be submitted to the Shipper within 2 hours after lapse of the Hour in which the Operator has received the Renominations.

The Approved Nominations may differ from the Renominations due to the check procedures described in Articles 3 and 4.

## 2.4 Suspension of Shipper's Right to submit Renominations

In circumstances with malfunctioning of the GPMS or the IT-system of the operator of the Transmission System, malfunctioning of the IT-communication line between Operator and operator of Transmission System or circumstances beyond the Operator's control, the Operator may suspend the Shipper's right to submit Renominations, provided that the Operator suspend its right to purchase Surplus Gas and Settlement Gas - cf. Standard Terms and Conditions - by the end of any Gas Day with periods of such suspension.

Such suspension shall be notified by the Operator to the Shipper - cf. contact details in the I&B-System - and shall have immediate effect upon such notice.

The Operator may at any time cancel the suspension upon notice to the Shipper and such cancellation shall have immediate effect upon such notice.

## 2.5 Latest Received Nominations/Renominations

If the Shipper revises Nominations or Renominations prior to a deadline for the Operator's receipt hereof, the latest received Nominations or Renominations shall apply, e.g. a Nominations received at 13:38 hours LET will be applied instead of an earlier Nominations received at 13:05 hours LET.

## 2.6 Automatic Procedure

All handling of Nominations and Renominations are fully automatically handled by the Operator's GPMS. Therefore, the Operator cannot meet the Shipper's extraordinary request for changes in Nominations, Renominations or Approved Nominations hereof. The Shipper is, on a best effort basis, obliged to check the Approved Nominations, and shall in due time try to correct all errors by submitting Renominations to GPMS.

# 3 REDUCTIONS OF NOMINATIONS AND RENOMINATIONS

## 3.1 Capacity Check

In the processing of Nominations and all Renominations received by the Operator prior to 03:00 hours LET on the Gas Day immediately prior to the Gas Day covered by the Renominations, the Shipper's Nominations/Renominations added up for all Shipper Code Pairs are for every Hour compared with Shipper's pooled Maximum Hourly Transportation Right.

If such comparison shows that the Shipper's Nominations/Renominations exceed its Maximum Hourly Transportation Right in any Hour, the Nominations/Renominations for such Hour will be reduced on a proportional basis for all Shipper Code Pairs, i.e. Nominations/Renominations for each Shipper Code Pair will be reduced by the same

percentage necessary for the Shipper to reduce its accumulated Nominations/Renominations for all Shipper Code Pairs to the Maximum Hourly Transportation Right for the Hour in question.

In the processing of Renominations received by the Operator after 03:00 hours LET on the Gas Day immediately prior to the Gas Day covered by the Renominations and until 03:00 hours LET on the Gas Day covered by the Renominations, the Shipper's Renominations added up for all Shipper Code Pairs are for every Hour compared with the summation of (after possible reductions in accordance with Article 4):

- The Shipper's pooled Maximum Hourly Transportation Right; plus
- The Shipper's approved Hour-ahead Capacity (cf. Article 3.2)

If such comparison shows that the Shipper's Renominations exceed the above summation in any Hour, the Renominations for such Hour will be reduced on a proportional basis for all Shipper Code Pairs, i.e. Renominations for each Shipper Code Pair will be reduced by the same percentage necessary for the Shipper to reduce its accumulated Renominations for all Shipper Code Pairs to the above summation.

### 3.2 Allocation of Hour-ahead Capacity

Operator's allocation of Hour-ahead Capacity to a Shipper is calculated first time two (2) hours before the beginning of the Gas Day for all Hours in the Gas Day. The allocation of the Shipper's Hour-ahead Capacity will be recalculated in case of Reduced Technical Capacity at one of the sub-redelivery points Nybro 1 or Nybro 2 or in case of any Shipper submitting Renominations.

The allocation of Hour-ahead Capacity per Hour to a Shipper follows the following 6 validation steps:

#### 1<sup>st</sup> validation step:

**IF**  $NOM > \sum_{x=1}^{Shipper's\ Sub-redelivery\ points} TechnicalCapacity$

**THEN**  $NOM1 = \sum_{x=1}^{Shipper's\ Sub-redelivery\ points} TechnicalCapacity$

**ELSE**  $NOM1 = NOM$

#### 2<sup>nd</sup> validation step:

IF                NOM1 > Hour-ahead\_limit + MHCR + Free\_Hour-ahead  
 THEN            NOM2 = Hour-ahead\_limit + MHCR + Free\_Hour-ahead  
 ELSE            NOM2 = NOM1

**3<sup>rd</sup> validation step:**

NOM3 = MIN{ NOM2; RedNom }

**4<sup>th</sup> validation step:**

IF                NOM3 > MHCR  
 THEN            NOM\_HA = NOM3 - MHCR  
 ELSE            NOM\_HA = 0

**5<sup>th</sup> validation step:**

Hour-ahead Capacity at sub-redelivery point Nybro 1 is allocated to all Shippers entitled to book capacity at sub-redelivery point Nybro 1.

IF

$$\sum_{x=1}^{\text{All shippers Nybro1}} \text{NOM\_HA} < \text{HA\_CAPACITY}_{\text{Nybro1}}$$

THEN

$$\text{CAP\_HA}_{\text{Nybro1}} = \text{NOM\_HA}$$

ELSE

$$\text{CAP\_HA}_{\text{Nybro1}} = \left( \frac{\text{NOM\_HA}}{\sum_{x=1}^{\text{All shippers Nybro1}} \text{NOM\_HA}} \right) * \text{HA\_CAPACITY}_{\text{Nybro1}}$$

**6<sup>th</sup> validation step:**

Hour-ahead Capacity at sub-redelivery point Nybro 2 is allocated to all Shippers entitled to book capacity at sub-redelivery point Nybro 2.



IF

$$\sum_{x=1}^{\text{All shippers Nybro2}} (NOM\_HA - CAP\_HA_{Nybro1}) < HA\_CAPACITY_{Nybro2}$$

THEN

$$CAP\_HA_{Nybro2} = NOM\_HA - CAP\_HA_{Nybro1}$$

ELSE

$$CAP\_HA_{Nybro2} = \left( \frac{CAP\_HA_{Nybro2}}{\sum_{x=1}^{\text{All shippers Nybro2}} (NOM\_HA - CAP\_HA_{Nybro1})} \right) * HA\_CAPACITY_{Nybro2}$$

The final Hour-Ahead Capacity allocated to a Shipper for a specific Hour is then:

$$CAP\_HA = CAP\_HA_{Nybro1} + CAP\_HA_{Nybro2}$$

Where:

*NOM* is a Shipper's Nomination/Renomination for a specific Hour

*NOM1* is a Shipper's (reduced) Nomination/Renomination for a specific Hour after the 1<sup>st</sup> validation step

*NOM2* is a Shipper's (reduced) Nomination/Renomination for a specific Hour after the 2<sup>st</sup> validation step

*NOM3* is a Shipper's (reduced) Nomination/Renomination for a specific Hour after the 3<sup>rd</sup> validation step

$\sum_{x=1}^{\text{Shipper's Sub-redelivery points}}$  **TechnicalCapacity** is the sum of the Technical Capacities of the sub-redelivery points the Shipper is entitled to book Available Capacity at.

*MHCR* is a Shipper's Maximum Hourly Capacity Right (or if applicable Reduced Maximum Hourly Capacity Right) for a specific Hour.

*Hour-ahead\_limit* is a Shipper's Hour-ahead Capacity Limit which is stated in the Framework Agreement.

*Free\_Hour-ahead* is a Shipper's Free Hour-ahead Capacity available free of charge for a specific Hour.

*NOM-HA* is a Shipper's request for Hour-ahead Capacity for a specific Hour

*CAP-HA<sub>Nybro1</sub>* is a Shipper's approved Hour-ahead Capacity at sub-redelivery point Nybro 1 for a specific Hour

*CAP-HA<sub>Nybro2</sub>* is a Shipper's approved Hour-ahead Capacity at sub-redelivery point Nybro 2 for a specific Hour

*CAP-HA* is a Shipper's approved Hour-ahead Capacity for a specific Hour

*HA\_CAPACITY<sub>Nybro1</sub>* is the available Hour-ahead Capacity at sub-redelivery point Nybro 1 for a specific Hour

*HA\_CAPACITY<sub>Nybro2</sub>* is the available Hour-ahead capacity a Nybro 2 for a specific hour

$\sum_{x=1}^{All\ shippers\ Nybro1}$  *NOM\_HA* is the sum of all Shippers' (entitled to book Available Capacity at sub-redelivery point Nybro 1) request for Hour-ahead Capacity for a specific Hour.

$\sum_{x=1}^{All\ shippers\ Nybro2}$  *NOM\_HA - CAP\_HA<sub>Nybro1</sub>* is the sum of all Shippers' (entitled to book Available Capacity at sub-redelivery point Nybro 2) residual request for Hour-ahead Capacity for a specific Hour, i.e. Hour-ahead Capacity not allocated under 5<sup>th</sup> validation step.

### 3.3 Matching

Subsequent to the Operators possible reduction of Shipper's Nominations or Renominations due to non-compliance with - or the Operator executing its rights in accordance with - any Transportation Agreement or the Standard Terms and Conditions including its Appendices, the Nominations or Renominations will be submitted to the operator of the Transmission System for matching against (comparison with)

(re)nominations submitted by the Shipper's counterpart shipping Gas in the Transmission System.

The matching procedure is conducted by the operator of the Transmission System and follows the procedure applicable at any time according to the Danish Network Code.

The current procedure performs matching for every Shipper Code Pair and applies the following methodology:

*The Shipper Code Pair identifies the Shipper in the Transportation System and the Shipper's counterpart in the Transmission system. A similar shipper code pair submitted by the Shipper's counterpart to the operator of the Transmission System identifies the Shipper in the Transportation System and the shipper in the Transmission System.*

*Upon match between the Shipper Code Pair and the shipper code pair in the Transmission System, matching of the Nominations/Renomination are performed for every Hour in accordance with the 'lesser rule' principle as recommended by EASEE-gas in its Common Business Practice CBP 2003-002/02.*

*Upon no match between the Shipper Code Pair and the shipper code pair in the Transmission System, the Shipper's Nominations/Renomination will be reduced to zero for every Hour.*

*In addition hereto matching will be based on the Shipper's and its counterpart's intention, which means that matching due to Renominations/renominations from either of the two, will be based on the other part's latest Nominations/nominations or Renominations/renomination and not the other part's latest Approved Nominations/approved nominations.*

*E.g. if the Shipper's latest Nominations of 250 has been reduced to 200 in accordance with the 'lesser rule' principle as a result of lower nominations from its counterpart, matching as a result of a subsequent renomination from the counterpart of 250 will therefore be based on the Shipper's original Nominations of 250, giving Approved Nominations of 250.*

### 3.4 Approved Nominations

The result of the matching procedure as described in Article 3.2 shall constitute the Approved Nominations.

## **4 REDUCTIONS OF SHIPPER'S NOMINATION**

### 4.1 Limitation of envisaged overdraft of the Gas Balance Account

In the beginning of every Hour (denoted  $h+1$ ) the balance of the Shipper's Gas Balance Account is estimated by the end of the third Hour (denoted  $h+3$ ) based on the assumption that:

- The Preliminary Hourly Delivery Allocation, cf. Article 5.1 for the previous Hour (denoted  $h$ ) will continue to be delivered and subsequently allocated for the next three (3) Hours (denoted  $h+1$ ,  $h+2$  and  $h+3$ ) and;
- The Preliminary Hourly Redelivery Allocation, cf. Article 5.1 for the next two (2) Hours  $h+1$  and  $h+2$  equals the Approved Nominations for the Hours in question and;
- The Shipper's latest Nomination for Hour  $h+3$  will be approved as an Approved Nomination and subsequently allocated as Preliminary Hourly Redelivery Allocation for Hour  $h+3$

If the estimated balance of the Gas Balance Account after lapse of Hour  $h+3$  is negative and numerically larger than the Under-delivery Flexibility valid for Hour  $h+3$ , the Shipper's Nomination valid for Hour  $h+3$  will be reduced by a portion required for the estimate to numerically exactly match an overdraft (negative balance) of the Gas Balance Account of exactly the Under-delivery Flexibility by the end of Hour  $h+3$ .

In case the Operator at its sole discretion assess that the deliveries at the Delivery Point(s) will be negligible for the next three (3) Hours  $h+1$ ,  $h+2$  and  $h+3$ , the Operator is entitled to set the estimated Preliminary Hourly Delivery Allocations for the Hours in question to zero (0).

The calculation of the reduction of the sum of the Nomination valid for the Hour  $h+3$  (denoted  $NomCut_{h+3}$ ) follows the equation:

$$Est. Gas Balance Account_{h+3} = Gas Balance Account_h - AppNom_{h+1} - AppNom_{h+2} - NOM2_{h+3} + \sum_{x=1}^3 MAX(PHDA_h + MHCR_{h+x} - MHCR_h; 0) + HourlyCorrection_{h+1} + HourlyCorrection_{h+2} + HourlyCorrection_{h+3}$$

IF ( $Est. Gas Balance Account_{h+3} < -2.4 * MHCR_{h+3}$ ) THEN

$$NomCut_{h+3} = MIN[NOM2; (-2.4 * MHCR_{h+3} - Est. Gas Balance Account_{h+3})]$$

ELSE

$$NomCut_{h+3} = 0$$

END IF

Where:

*Est. Gas Balance Account*  $_{h+3}$  equals the estimated balance of the Gas Balance Account after the lapse of the Hour  $h+3$

*Gas Balance Account*  $_h$  is the calculated balance of the Gas Balance Account by the end of the Hour  $h$ .

*AppNom*  $_{h+1}$  and *AppNom*  $_{h+2}$  are the Approved Nomination for the Hours  $h+1$  and  $h+2$ , respectively

*PHDA*  $_h$  is the Preliminary Hourly Delivery Allocation for the Hour  $h$

*HourlyCorrection*  $_{h+1}$ , *HourlyCorrection*  $_{h+2}$  and *HourlyCorrection*  $_{h+3}$  are the Hourly Corrections for the Hours  $h+1$ ,  $h+2$  and  $h+3$  respectively as further described in Article 5.2 second bullet.

*MHCR*  $_{h+3}$  is an abbreviation for Maximum Hourly Transportation Right for the Hour  $h+3$

*NOM2* $_{h+3}$  is the result of the 2<sup>nd</sup> validation step in Article 3.2

*MIN*[ $x$  ;  $y$ ] means the minimum value of  $x$  and  $y$

The Shipper's reduced nomination (denoted *RedNom*  $_{h+3}$ ) is calculated by applying the following formulae:

$$RedNom_{h+3} = NOM2_{h+3} - NomCut_{h+3}$$

The *RedNom*  $_{h+3}$  will be subject to matching in accordance with Article 3.2

The calculation is made every hour, normally no later than 30 minutes after the lapse of the Hour denoted  $h$  and valid for the Hour denoted  $h+3$

#### 4.2 Allocation of Free Hour-ahead Capacity

If the Shipper's Nomination has been reduced by X kWh/h in the Hour  $h$  in accordance with the calculation in Article 4.1, the Shipper will be granted Free Hour-ahead Capacity of X kWh/h to be used in the Hour  $h+4$  or in future Hours of the same Gas Day.

In the calculation of the Hour-ahead Capacity allocation the free Hour-ahead balance will be added to Shipper's Hour-ahead Capacity limit.

After every Hour  $h$  the aggregated Free Hour-ahead Capacity allocated during the current Gas Day and which can be used free of charge during Hour  $h+4$  and any

subsequent Hour of the same Gas Day will be informed to the shipper using the ACCPOS message.

The calculation of the Free Hour-ahead Capacity follows the equation:

```

IF          NOM3>NOM_Matching
THEN       Free_Hour_ahead = 0
ELSE       (IF          NOM3<MCHR
            THEN       Free_Hour_ahead = MIN(MHCR;NOM) – NOM3
            ELSE       Free_Hour_ahead = 0)
    
```

Where:

*NOM3* is the result of the 3<sup>rd</sup> validation step in Article 3.2

*NOM\_Matching* is the result of the matching of Nominations/Renominations submitted by the operator of the Transmission System

*Free\_Hour-ahead* is a Shipper's Free Hour-ahead Capacity available free of charge for a specific Hour.

*MHCR* is a Shipper's Maximum Hourly Capacity Right (or if applicable Reduced Maximum Hourly Capacity Right) for a specific Hour.

*NOM* is a Shipper's Nomination/Renomination for a specific Hour

*MIN[x ; y]* means the minimum value of x and y

#### 4.3 Maintenance etc.

The Operator may reduce the Shipper's Maximum Hourly Transportation Right fully or partially in the Maintenance Period and in periods with Reduced Capacity.

## 5 ALLOCATIONS

### 5.1 Hourly Sequence

By the end of each Hour (denoted h) the Operator shall before the end of the subsequent Hour (denoted h+1) inform the Shipper via e-mail (ALOCAT-message) about:

- Preliminary Quantity (“Preliminary Hourly Delivery Allocation”) of Gas allocated in total during the previous Hour  $h$  to the Shipper at the Delivery Point(s) by all the Shipper’s suppliers of Gas based on information which has been send electronically to the Operator by the operator of the fiscal measurement facilities at the Delivery Point(s) used for measuring deliveries to the Shipper.
- Preliminary Quantity (“Preliminary Hourly Redelivery Allocation”) of Gas allocated during the previous Hour  $h$  to every Shipper Code Pair at the Redelivery Point. The allocation procedure at the Redelivery Point follows the procedure applicable at any time according to the Danish Network Code. The current procedure for determining Preliminary Hourly Redelivery Allocation for every Hour and for every Shipper Code Pair is according to the following methodology:  
The latest Approved Nominations will be allocated as Preliminary Hourly Redelivery Allocation.

The Operator has the right to estimate the Shipper’s Preliminary Hourly Delivery Allocation in a situation where the information has not been received in due time by the Operator or the information is assessed as erroneous by the Operator.

By the end of each Hour  $h$  the Operator shall before the end of the subsequent Hour  $h+1$  inform the Shipper via e-mail (ACCPOS-message) about:

- Balance of the Shipper’s Gas Balance Account, cf. Article 6.1.

## 5.2 Daily Sequence

The Operator shall before 12:00 LET on each Gas Day (denoted  $d+1$ ) inform the Shipper via e-mail (ALOCAT-message) about:

- Revised preliminary Quantity (“Preliminary Hourly Redelivery Allocation”) of Gas allocated each Hour on the previous Gas Day  $d$  to every Shipper Code Pair at the Redelivery Point. The revision is the result of a comparison with subsequent adjustments (if relevant) of all previous Gas Day’s Preliminary Hourly Redelivery Allocations with similar data held by the operator of the Transmission System. The Shipper will be consulted if an adjustment is significant and any adjustment will be announced to the Shipper with i.a. information on which coming Hours in the Hourly Corrections (cf. next bullet) to be affected by the adjustment.
- Hourly Corrections (with sign, i.e. plus or minus), cf. Article 6.2 to be added to the Gas Balance Account every Hour of Gas Day  $d+1$ .

The Operator shall before 12:00 hours LET on each Gas Day (denoted d+1) inform the Shipper via e-mail (IMBNOT-message) about:

- The imbalance (one value denoted IMBALANCE) of the previous Gas Day d which is the following difference:
  - the sum of all Preliminary Hourly Delivery Allocations for the previous Gas Day
  - minus
  - the sum of all revised Preliminary Hourly Redelivery Allocations for the previous Gas Day d, cf. first bullet of this Article 5.2.
  
- The Operator's purchase of Surplus Gas (one value denoted TRADE) at 06:00 hours LET by the end of Gas Day d, which will be deducted from the Gas Balance Account over 24 Hours during the Gas Day which time-wise coincides with the second Banking Day as 24 equal bits included in the reported Hourly Corrections, cf. second bullet of this Article 5.2.
  
- The Operator's purchase of Settlement Gas (one value denoted SETTLEMENT) at 06:00 hours LET on the same Gas Day, which will be deducted from the Gas Balance Account over 24 Hours during the Gas Day which time-wise coincides with the second Banking Day as 24 equal bits included in the reported Hourly Corrections, cf. second bullet of this Article 5.2.
  
- The delivery correction (one value denoted CORRECTION) which is the following difference:
  - a revision of Gas allocated in total on the previous Gas Day to the Shipper at the Delivery Point(s) based on information which has been send electronically to the Operator by the operator of the fiscal measurement facilities at the Delivery Point(s) used for measuring deliveries to the Shipper.
  - minus
  - the sum of all Preliminary Hourly Delivery Allocations for the previous Gas Day.

which will be added (with sign, i.e. plus or minus) to the Gas Balance Account over 24 Hours during the Gas Day which time-wise coincides with the second Banking Day as 24 equal bits included in the reported Hourly Corrections, cf. second bullet of this Article 5.2.

### 5.3 Monthly Sequence



The Operator shall at latest on the 15th day in any calendar month inform the Shipper via e-mail (Final allocation report delivered as two Microsoft Excel spread sheets, cf. attachment 2, sheet a and sheet b) about:

Sheet a:

- Preliminary Hourly Delivery Allocations (accumulated per Gas Day) allocated on every Gas Day during previous Month, cf. Article 5.1 first bullet.
- The delivery corrections on every Gas Day during previous Month (denoted “difference” in sheet a) - i.e. the value denoted CORRECTION in Article 5.2 last bullet plus delivery corrections announced to the Shipper via email during the previous Month (if any) – which have already been corrected for in the Gas Balance Account
- Final Quantity (“Final Delivery Allocation”) of Gas allocated in total on every Gas Day during previous Month at the Delivery Point(s) by all the Shipper’s suppliers of Gas provided such information has been submitted to the Operator by the operator of the fiscal measurement facilities at the Delivery Point(s) used for measuring deliveries to the Shipper.
- The accumulated difference (one value - positive or negative) which has not yet been corrected for in the Gas Balance Account due to the final allocation settings (Final Delivery Allocations). This accumulated difference is calculated as:
  - The sum of all Gas Days’ Final Delivery Allocations (third bullet above) minus
  - The sum of all Gas Days’ Preliminary Hourly Delivery Allocations (first bullet above) minus
  - The sum of all Gas Days’ delivery corrections (second bullet above)

This accumulated difference will be added (with sign, i.e. plus or minus) to the Gas Balance Account on a specified future Gas Day, which is announced to the Shipper, cf. attachment 2, sheet a. The Gas Balance Account will in all Hours on the specified Gas Day be affected by equal bits included in the reported Hourly Corrections, cf. second bullet of this Article 5.2.

Sheet b:

- Revised Preliminary Hourly Redelivery Allocations allocated to every Shipper Code Pair every Hour during the previous Month, cf. Article 5.2 first bullet.
- Any further corrections per Shipper Code Pair per Hour during the previous Month as a result of a final comparison of all previous Month’s revised Preliminary Hourly Redelivery Allocations with similar data held by the

operator of the Transmission System. The sum of the revised Preliminary Hourly Redelivery Allocations (first bullet) and any further corrections constitutes the final Quantity (“Final Redelivery Allocation”) of Gas allocated for every Hour and for every Shipper Code Pair during the previous Month at the Redelivery Point.

The accumulation of all further corrections for all Shipper Code Pairs and all Hours during the previous Month will be added (with sign, i.e. plus or minus) to the Gas Balance Account on the same specified future Gas Day and in the same manner as described above (in last bullet under Sheet a).

## **6 GAS BALANCE ACCOUNT ETC.**

### **6.1 Balance of the Gas Balance Account**

The balance of the Gas Balance Account is calculated after the lapse of every Hour (denoted h) as:

- The balance of the Gas Balance Account after the lapse of the previous Hour (denoted h-1)

plus

- Preliminary Hourly Delivery Allocation for the Hour h, cf. Article 5.1 first bullet

minus

- Preliminary Hourly Redelivery Allocation (accumulated for all Shipper Code Pairs) for the Hour h, cf. Article 5.1 second bullet

plus

- the Hourly Corrections (negative or positive) for the Hour h, cf. Article 5.2 second bullet and Article 6.2.

### **6.2 Hourly Corrections**

The Hourly Corrections valid for a Gas Day (denoted d) consist of a correction to the Gas Balance Account for every Hour of Gas Day d. Such corrections will be added (with sign, i.e. plus or minus) to the Gas Balance Account at the end of the Hour as described in Article 6.1. The Hourly Corrections will always include the sum of corrections described in Article 5.2 and denoted TRADE, SETTLEMENT and CORRECTION.

Furthermore the Hourly Corrections may include manually inserted corrections due to i.a. corrections described in Article 5.2 first bullet and described in Article 5.3.

## **7 MAINTENANCE**

The Operator shall at least with 30 days' notice prior to the Maintenance Period notify the Shipper of the following:

- The number of Gas Days, where the aggregated transportation capacity in the Transportation System is expected to be affected by Planned Maintenance.
- The expected Reduced Capacity available to the Shipper during the Gas Days affected by Planned Maintenance.
- A two Month time window during which the Maintenance Period is expected to take place.

The Shipper shall within 10 days after receipt of such notice have submitted its duly substantiated view and comments to the Operator's tentative maintenance plan as notified to the Shipper above. The Operator shall to a reasonable extent take the Shipper's comments into consideration before finalising the maintenance plan.

The Operator shall prior to the third Monday in the Month immediately prior to the Month in which the Operator decides to place the Maintenance Period notify the Shipper of the following:

- The number of Hours, where the aggregated transportation capacity in the Transportation System will be affected by Planned Maintenance.
- The Reduced Capacity available to the Shipper during the Hours affected by Planned Maintenance.

The Operator shall further prior to the second last working day in the Week immediately prior to the Week in which the Operator decides to place the Maintenance Period update the Shipper of the following detail:

- A revised number of Hours, where the aggregated transportation capacity in the Transportation System will be affected by Planned Maintenance.

The Operator shall further prior to the last working day before the Gas Day in which the Operator decides to place the Maintenance Period update the Shipper of the following detail:

- A revised number of Hours, where the aggregated transportation capacity in the Transportation System will be affected by Planned Maintenance.

## **8 ATTACHMENTS**

The content of messages to be interchanged with the Shippers in the hourly and daily sequences is described in the document “Message guide for nominations, allocations and energy balancing in the Danish Offshore Gas Systems”.

Attachment 1

# NOMINATION

**DONG Offshore Gas Systems A/S (Gas Control Centre)**

Fax: +45 75259879

Phone.: +45 76733271

Nominate

Shipper: Name of shipper

EAN No: 1234567654321



**Nomination for day**

**2015-04-22**

Nom id	OS000999-DS000888			
Hour	Redelivery			
06-07	124.000			
07-08	124.000			
08-09	124.000			
09-10	124.000			
10-11	124.000			
11-12	124.000			
12-13	124.000			
13-14	124.000			
14-15	124.000			
15-16	124.000			
16-17	124.000			
17-18	124.000			
18-19	124.000			
19-20	124.000			
20-21	124.000			
21-22	124.000			
22-23	124.000			
23-24	124.000			
24-01	124.000			
01-02	124.000			
02-03	124.000			
03-04	124.000			
04-05	124.000			
05-06	124.000			
<b>Total</b>	<b>2.976.000</b>			

*Nomination for the 25th hour when changing from daylight saving time back to Danish standard time.*

02-03	0	0	0	0
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Attachment 2, sheet a

	A	B	C	D	E
<b>Name of shipper</b>					
April 2015					
<b>Final Delivery Allocations</b>					
	<b>Date</b>	<b>Preliminary Delivery Allocations</b>	<b>Corrections</b>	<b>Final Delivery Allocations</b>	
		<b>kWh</b>	<b>kWh</b>	<b>kWh</b>	
	01-apr-2015	1.712.937	7.046	1.719.982	
	02-apr-2015	3.254.486	9.365	3.263.851	
	03-apr-2015	2.909.638	8.595	2.918.233	
	04-apr-2015	2.911.268	10.029	2.932.844	
	05-apr-2015	2.784.173	14.461	2.798.634	
	06-apr-2015	2.494.128	13.421	2.507.549	
	07-apr-2015	3.272.898	-349.654	2.909.402	
	08-apr-2015	3.061.317	22.792	3.084.109	
	09-apr-2015	3.397.946	24.653	3.422.599	
	10-apr-2015	3.303.043	100.078	3.406.317	
	11-apr-2015	2.788.945	22.589	2.811.534	
	12-apr-2015	3.105.489	26.469	3.131.957	
	13-apr-2015	2.963.263	27.222	2.990.485	
	14-apr-2015	3.041.590	25.083	3.066.673	
	15-apr-2015	1.494.948	76.577	1.571.525	
	16-apr-2015	2.864.764	24.800	2.889.564	
	17-apr-2015	2.720.849	207.065	2.927.914	
	18-apr-2015	2.669.772	12.424	2.682.196	
	19-apr-2015	2.591.576	12.594	2.604.170	
	20-apr-2015	2.799.817	16.362	2.816.179	
	21-apr-2015	2.914.221	5.733	2.919.954	
	22-apr-2015	2.017.097	206.007	2.223.104	
	23-apr-2015	1.901.438	6.074	1.907.512	
	24-apr-2015	2.157.124	15.048	2.172.172	
	25-apr-2015	2.401.459	19.726	2.421.185	
	26-apr-2015	2.620.796	14.866	2.635.662	
	27-apr-2015	1.299.155	6.062	1.305.217	
	28-apr-2015	1.979.131	1.602	1.980.733	
	29-apr-2015	1.849.860	36.989	1.886.849	
	30-apr-2015	2.152.671	10.425	2.163.096	
	<b>Total Preliminary Delivery Allocation</b>	<b>77.435.795</b>			
	<b>Total Corrections</b>		<b>634.500</b>		
				<b>78.071.198</b>	
	<b>Accumulated difference</b>			<b>902</b>	

Attachment 2, sheet b

<b>Name of shipper</b>			
April 2015			
Redelivery			
OS000999-DS000888			
Date	Final Redelivery Allocations kWh	Corrections kWh	
01-apr-2015 06:00	124.000	0	
01-apr-2015 07:00	41.802	0	
01-apr-2015 08:00	0	0	
01-apr-2015 09:00	69.124	0	
01-apr-2015 10:00	124.000	0	
01-apr-2015 11:00	124.000	0	
01-apr-2015 12:00	124.000	0	
01-apr-2015 13:00	124.000	0	
01-apr-2015 14:00	124.000	0	
01-apr-2015 15:00	124.000	0	
01-apr-2015 16:00	124.000	0	
01-apr-2015 17:00	124.000	0	
01-apr-2015 18:00	124.000	0	
01-apr-2015 19:00	26.849	0	
01-apr-2015 20:00	0	0	
01-apr-2015 21:00	63.330	0	
01-apr-2015 22:00	89.363	0	
01-apr-2015 23:00	120.220	0	
02-apr-2015 00:00	104.903	0	
02-apr-2015 01:00	47.167	0	
02-apr-2015 02:00	92.606	0	
02-apr-2015 03:00	105.678	0	
02-apr-2015 04:00	0	0	
02-apr-2015 05:00	66.888	0	
02-apr-2015 06:00	85.453	0	
02-apr-2015 07:00	104.297	0	
02-apr-2015 08:00	72.839	0	
02-apr-2015 09:00	142.000	0	
02-apr-2015 10:00	142.000	0	
02-apr-2015 11:00	142.000	0	
02-apr-2015 12:00	142.000	0	
02-apr-2015 13:00	142.000	0	
02-apr-2015 14:00	142.000	0	
02-apr-2015 15:00	142.000	0	