

**BUSINESS RULES**

**EXTRACT OF INTERCONNECTION AGREEMENT**

between

**THE NATIONAL GAS TRANSMISSION COMPANY "TRANSGAZ S.A."**

and

**BULGARTRANSGAZ EAD**

for

**IP Ruse - Giurgiu**

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## Article 1 - Definitions

The terms used in this IA shall have the meaning as follows:

**Active TSO** shall mean one of the adjacent TSOs which receives the single-sided nominations forwarded by the Network User(s). For the purpose of this IA, BULGARTRANSGAZ is the Active Transmission System Operator.

**Bundled capacity product** shall mean a standard capacity product offered on a firm basis which consists of the corresponding entry and exit capacity at both sides of the IP Ruse - Giurgiu.

**Capacity product** shall mean a certain amount of transport capacity over a given period of time, at a specified interconnection point. The capacity offered shall be expressed in kWh/d. A flat flow rate over the Gas Day is assumed. Parties acknowledge that the reference conditions shall be 0°C for volume and 25°C for default combustion reference temperature.

**Common data exchange solution** means the common data network, data exchange protocols and data formats for the electronic communications.

**Confirmed Quantity** shall mean the quantity of Natural Gas confirmed by the **MSO** to be scheduled or re-scheduled to flow on a Gas Day D at the IP.

**Counterparty** means any party with whom any of the Parties exchanges data for the purpose of the implementation of Regulation (EC) No. 715/2009, unless specifically otherwise defined in this Agreement.

**Cubic meter V<sub>0</sub>** is the gas amount which at the temperature of 0 degrees Celsius (°C) and the absolute pressure of 1.01325 bar, in the absence of water vapours, occupies the volume of one cubic meter (1m<sup>3</sup>).

**Cubic meter V<sub>15</sub>** is the gas amount which at the temperature of 15 degrees Celsius (°C) and the absolute pressure of 1.01325 bar, in the absence of water vapors, occupies the volume of one cubic meter (1 m<sup>3</sup>). For the purpose of this IA, this volume is calculated as per Annex 7A.

**Cubic meter V<sub>20</sub>** is the gas amount which at the temperature of 20 degrees Celsius (°C) and the absolute pressure of 1.01325 bar, in the absence of water vapors, occupies the volume of one cubic meter (1 m<sup>3</sup>). For the purpose of this IA, this volume is calculated as per Annex 7B.

**Daily Balance Position (DBP)** shall mean a quantity calculated on a daily basis, for each Gas Day D of the period of implementation of the **Operational Balancing Account (OBA)** allocation procedure. The calculation of DBP for a specific Gas Day D is performed according to the following formula:

$$DBP^D = TDAQ^D - Q_M^D$$

Where:

$Q_M^D$  is the measured quantity, expressed in kWh, of the physical flow through the IP towards the RO-BG direction or BG-RO direction during the Gas Day D;

$TDAQ^D$  is the Total Daily Allocated Quantity during the Gas Day D;

**Downstream Operator** shall mean the Party physically receiving the natural gas.

**Double Sided Nominations (DSN)** shall mean delivery nominations submitted by the pairs of Network User(s) who have successfully reserved unbundled capacity at the IP.

**Exceptional event** means any unplanned event that may cause, for a limited period, capacity reductions, affecting thereby the quantity or quality of gas at interconnection points, with possible

consequences on interactions between the Parties as well as between any Party and its network users.

**Firm capacity** means gas transmission capacity contractually guaranteed as uninterrupted by the transmission system operator.

**Forecasted GCV** shall mean the average GCV, calculated in the GMS Giurgiu (for deliveries in the RO-BG direction) and GMS Ruse (for deliveries in the BG-RO direction) by using ISO 6976, on the Gas Day D-2, immediately preceding the Gas Day D-1 on which the matching process for the Gas Day concerned (D) takes place. The Forecast GCV is expressed in kWh/m<sup>3</sup> (reference combustion temperature 25°C, reference volume temperature 0°C).

**Gas Day** shall mean the period from 5:00 to 5:00 UTC the following day for winter time and from 4:00 to 4:00 UTC following day when daylight saving is applied. The reference date of any Gas Day is the date of the calendar day on which the Gas Day begins.

**Gas Measuring Station Giurgiu** (hereinafter referred to as Gas Measuring Station or GMS Giurgiu): shall mean the border measuring station owned by TRANSGAZ.

The GMS Giurgiu has been designed, built and operated in accordance with the design specifications and operating standards and procedures, in accordance with sound and prudent gas industry practice, in accordance with international standards (for example EN and ISO) and in accordance with all laws, rules and regulations of any authority having jurisdiction above it.

The Gas Measuring Station Giurgiu shall be used for commercial measuring and/or determination of the quantity and quality of gas delivered from Romania to Bulgaria. In this case the Gas Measuring Station Ruse shall be used for monitoring.

In case of out of service the Gas Metering Station Ruse will be used for measuring and/or determination of the quantity and quality of gas delivered from Romania to Bulgaria.

**Gas Measuring Station Ruse** (hereinafter referred to as Gas Measuring Station or GMS Ruse): shall mean the border measuring station owned by BULGARTRANSGAZ.

The GMS Ruse has been designed, built and operated in accordance with the design specifications and operating standards and procedures, in accordance with sound and prudent gas industry practice, in accordance with international standards (for example EN and ISO) and in accordance with all laws, rules and regulations of any authority having jurisdiction above it.

The Gas Measuring Station Ruse shall be used for commercial measuring and/or determination of the quantity and quality of gas delivered from Bulgaria to Romania. In this case the Gas Measuring Station Giurgiu shall be used for monitoring.

In case of out of service the Gas Measuring Station Giurgiu shall be used for measuring and/or determination of the quantity and quality of gas delivered from Bulgaria to Romania.

**Gas quantity expressed in energy units at normal reference conditions (kWh)** shall mean the energy content of a given volume of gas calculated as the product of the gas volume expressed at normal reference conditions (t=0°C) without decimals (truncated, not rounded), multiplied by the Gross Calorific Value (25/0)), expressed at normal reference conditions, with 6 decimals.

**Gas quantity expressed in energy units at Romanian reference conditions (kWh(15/15))** shall mean the energy content of a given volume of gas calculated as the product of the gas volume expressed at normal reference conditions (t=15°C) without decimals (truncated, not rounded), multiplied by the Gross Calorific Value (15/15)), expressed at normal reference conditions, with 6 decimals.

**Gas quantity expressed in energy units at Bulgarian reference conditions (kWh(25/20))** shall mean the energy content of a given volume of gas calculated as the product of the gas volume expressed at normal reference conditions (t=20°C) without decimals (truncated, not rounded), multiplied by the Gross Calorific Value (25/20)), expressed at normal reference conditions, with 6 decimals.

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**Gas Year** shall mean the period of time beginning with the first Gas Day of October of the current year and ending with the last Gas Day of September of the next year.

**Gross (Superior) Calorific Value (GCV(25/0)) at Normal Reference Conditions** shall be calculated for real gas according to ISO 6976 taking into consideration the normal reference conditions and combustion reference temperature of 25°C. The Gross Calorific Value is expressed in kWh/m<sup>3</sup>. These data shall be applied between the Parties while performing all duties as stipulated in this IA.

For energy calculation, the GCV in kWh/m<sup>3</sup> shall be used with a rounding at 6 decimals, with rounding up if the 7<sup>th</sup> decimal is 5 or more, and with a rounding down if the 7<sup>th</sup> decimal is 4 or less.

**Gross (Superior) Calorific Value (GCV(15/15)) at Romanian Reference Conditions** shall be calculated for real gas according to ISO 6976 taking into consideration the normal reference conditions and combustion reference temperature of 15°C. The Gross Calorific Value is expressed in kWh(15/15)/m<sup>3</sup>.

For energy calculation, the GCV in kWh(15/15)/m<sup>3</sup> shall be used with a rounding at 6 decimals, with rounding up if the 7<sup>th</sup> decimal is 5 or more, and with a rounding down if the 7<sup>th</sup> decimal is 4 or less.

**Gross (Superior) Calorific Value (GCV(25/20)) at Bulgarian Reference Conditions** shall be calculated for real gas according to ISO 6976 taking into consideration the normal reference conditions and combustion reference temperature of 25°C. The Gross Calorific Value is expressed in kWh(25/20)/m<sup>3</sup>.

For energy calculation, the GCV in kWh(25/20)/m<sup>3</sup> shall be used with a rounding at 6 decimals, with rounding up if the 7<sup>th</sup> decimal is 5 or more, and with a rounding down if the 7<sup>th</sup> decimal is 4 or less.

**Hydrocarbon dew point** means the temperature at which the hydrocarbons in gas begin to condense at a certain pressure.

**Initiating System Operator (ISO)** means the Party initiating the matching process by sending the necessary data to the Matching System Operator (**MSO**). For the purpose of this IA, TRANSGAZ is the **ISO**.

**Interconnection Point Ruse - Giurgiu** shall mean the interconnection between the TRANSGAZ's Transmission System and the BULGARTRANSGAZ's Transmission System at the Romanian - Bulgarian border near to Giurgiu (on the territory of Romania) and near to Ruse (on the territory of Bulgaria). The measuring and/or determination of quantities and quality of gas delivered at this IP shall be carried out at the Giurgiu Gas Measuring Station in case of Romania-to-Bulgaria physical flow and at the Ruse Gas Metering Station in case of Bulgaria-to-Romania physical flow.

**Interruptible capacity** means gas transmission capacity that may be interrupted by the transmission system operator in accordance with the conditions stipulated hereinafter.

**Kilowatt hour (kWh)** is equal to 3.6 MJ.

**Lead time** means a period of two hours starting on the first full hour after nomination's submission, after which the actual implementation of the nomination starts.

**Limitation range (LR)** shall mean the allowed range of values of the **Total Balance Position**.

**Lesser rule** means that in case of different processed quantities at either side of the interconnection points, the confirmed quantity will be equal to the lower of the two processed quantities.

**Matching process** shall mean the process of comparing and aligning processed quantities of network users at both sides of the interconnection points, which will result in confirmed quantities for the network users. Nominations given by the Network Users are expressed in kWh/d during the matching process.

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**Matching System Operator (MSO)** means the Party performing the matching process and sending the result of the matching process to the Initiating System Operator (**ISO**). For the purpose of this IA, BULGARTRANGAZ is the **MSO**.

**Measured quantity** means the quantity of gas that according to the measurement equipment has been physically transported across the interconnection point per time period.

**Month:** shall be a period beginning at 5:00 UTC in winter time, and 4:00 UTC in summer time on the first day of a calendar month and ending at the same time on the first day of the next calendar month.

**Natural gas** or **gas** is a mixture of hydrocarbons (principally methane) and non-combustible components in a gaseous state, prepared for pipeline transmission.

**Network User** shall mean a natural person or legal entity that holds transportation capacity at the IP, on the basis of a transportation contract concluded either with TRANSGAZ and/or BULGARTRANGAZ. Each Network User is assigned a unique identification code by the respective Operator.

**Network User Code** shall mean a unique identification code assigned by an Operator to a registered Network User to be used for identification in the procedures and systems administered by the Operator.

**Normal reference conditions** of temperature, pressure and humidity to be used for measurement and calculations on natural gas are 273.15 K (0 °C) and 101.325 kPa (1.01325 bar (absolute)) for real dry gas.

**Operational Balancing Account (OBA)** is a joint account where the Daily Balance Position of both TSOs at the IP is recorded. TRANSGAZ is the TSO responsible for calculating, on a daily basis, the Daily Balance Position and the Total Balance Position and update the Operational Balancing Account accordingly.

**Pair of Network Users** shall mean the mutually served, in line with corresponding transportation contracts, Network Users or group of Network Users at the both sides of the IP.

**Passive TSO** shall mean the TSO which receives the single-sided nominations forwarded by the active TSO. For the purpose of this IA, TRANSGAZ is the passive Transmission System Operator.

**Processed quantity** means the quantity of natural gas assessed by Parties, which takes into account the network user's nomination (respectively re-nomination) and contractual provisions as defined under the relevant transport contract;

**Single Sided Nominations (SSN)** shall mean delivery nominations submitted by the Network User(s) who have successfully reserved bundled capacity at the IP to the Active TSO.

**Steering difference** means the difference between the quantity of gas that the Parties has scheduled to flow and the measured quantity for an interconnection point.

**Time:** all the data regarding time shall be expressed using the **UTC INT NC**, except in the Matching Schedule tables (where time shall be in Central European Time).

**Total Balance Position (TBP)** shall mean the actual accumulation of DBP over a consecutive number of Gas Days. The calculation of TBP for each Gas Day D of the period of implementation of the OBA allocation procedure, is performed as follows:

1. For the first Gas Day D of implementation of the OBA allocation procedure, the TBP is set equal to the DBP calculated for this Gas Day D.
2. For each subsequent Gas Day D and up to (and including) the last Gas Day of the period of implementation of the OBA allocation procedure, the TBP for the Gas Day D shall be calculated as the algebraic sum of the TBP of Gas Day D-1 and the DBP for the Gas Day D concerned.

Negative TBP indicates that BULGARTRANGAZ is indebted towards the zero balance position, with a quantity equals to the absolute value of TBP. Positive TBP indicates that TRANSGAZ is indebted towards the zero balance position, with a quantity equals to the value of TBP.

**Total Daily Allocated Quantity (TDAQ<sup>D</sup>)** shall mean a quantity defined as:

$$TDAQ^D = \sum_i Q_{AL,F,i}^D - \sum_j Q_{AL,R,j}^D$$

Where:

$Q_{AL,F,i}^D$  is the allocated quantity, expressed in kWh (for a given pair of NUs in RO-BG direction, during the Gas Day D);

$Q_{AL,R,j}^D$  is the allocated quantity, expressed in kWh (for a given pair of NUs in BG-RO direction, during the Gas Day D);

$i$ , is the pair of NUs active in the RO-BG direction during the Gas Day D;

$j$ , is the pair of NUs active in the BG-RO direction during the Gas Day D;

**Upstream Operator:** shall mean the Party delivering physically the natural gas.

**Water dew point** means the temperature at which the water vapours in gas begin to condense at a certain pressure.

**Wobbe number** or **Wobbe index** shall mean an indicator of the interchangeability of fuel gases with different composition expressed by the Gross calorific value divided by the square root of relative density at the same specified metering reference conditions. The measurement unit is kWh/m<sup>3</sup>.

**Working day:** shall be all days with the exception of Saturdays, Sundays, Romanian and Bulgarian public holidays and rest days based on government decree. Public holidays and other designated rest days must be communicated by both Parties to each other. Communication covering the next calendar year's holidays is expected in written form until 1 December of the previous calendar year.

**Working hours:** for Transgaz, it shall be from 5:00 UTC to 13:00 UTC in winter time (from last Sunday in October to last Sunday in March and 04:00 UTC to 12:00 UTC in summer time (from last Sunday in March to last Sunday in October). For BULGARTRANGAZ, it shall be from 6:30 UTC to 15:00 UTC in winter time (from last Sunday in October to last Sunday in March and 5:30 UTC to 14:00 UTC in summer time (from last Sunday in March to last Sunday in October).

## Article 7 - Business Rules

### 7.1 Network Users' setup and update

On a regular basis and as soon as possible but before the new Network User plans the transmission, new Network User's codes for the TRANSGAZ's Transmission System and/or the BULGARTRANGAZ's Transmission System, respectively shall be discussed:

- TRANSGAZ shall communicate to BULGARTRANGAZ the list of Network User codes (according to Annex 1A), which shall be used by the Network Users for nominating gas quantities for transportation in the TRANSGAZ's Transmission System, whilst
- BULGARTRANGAZ shall communicate to TRANSGAZ the list of Network User codes (according to Annex 1B), which shall be used by the Network Users for nominating gas quantities for transportation in the BULGARTRANGAZ's Transmission System.

### 7.2 The Gross Calorific Values for daily matching process

7.2.1 For the performance of a transmission service at the IP for the purpose of daily matching process, the following rules shall apply:

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- 7.2.1.1 TRANSGAZ shall notify BULGARTRANSGAZ on the forecasted average GCV at the IP to be used for daily matching purposes for the RO-BG direction, during the first two Gas Days in the initial phase. The GCV shall be in kWh/m<sup>3</sup>(0);
- 7.2.1.2 BULGARTRANSGAZ shall notify TRANSGAZ on the forecasted average GCV at the IP to be used for daily matching purposes for the BG-RO direction, during the first two Gas Days in the initial phase. The GCV shall be in kWh/m<sup>3</sup>(0);
- 7.2.1.3 The Forecasted Gross Calorific Values at the IP, expressed in kWh/m<sup>3</sup>(0) shall be posted, after the Gas Day until UTC 10:00 (in winter time) and UTC 09:00 (in summer time), on the websites of BULGARTRANSGAZ and TRANSGAZ.
- 7.2.1.4 The Forecasted Gross Calorific Value shall be used for the daily nomination/re-nomination and matching process.

### 7.3 Matching procedure

- a) The Network Users active on both sides of the IP shall be entitled to submit to BULGARTRANSGAZ and TRANSGAZ the double-sided nomination for Gas Day D no later than UTC 13:00 (in winter time) and UTC 12:00 (in summer time) of the Gas Day D-1.
- b) The Network Users shall submit all single-sided (re-)nominations to BULGARTRANSGAZ, until the deadlines mentioned at a) and g) at the latest.
- c) All single-sided (re-)nominations shall be forwarded by BULGARTRANSGAZ to TRANSGAZ for processing using the DELORD – ANC message according to the Edig@s format. This shall be done as soon as technically possible but no later than the beginning of the next full hour after the (re-)nomination was submitted by the Network Users to BULGARTRANSGAZ. In case a single-sided (re-)nomination is forwarded by BULGARTRANSGAZ to TRANSGAZ for processing after the beginning of the next full hour, both BULGARTRANSGAZ and TRANSGAZ shall start processing it in the next re-nomination cycle in order to avoid misunderstandings and with respect to the usage of automated processes in the information systems involved.
- d) By UTC 13:45 (in winter time) and UTC 12:45 (in summer time) of the Gas Day D-1, TRANSGAZ shall send to BULGARTRANSGAZ the DELORD message according to Edig@s-XML format regarding the Processed quantities for delivery/offtake for Gas Day D at IP by Network User pairs. The Processed quantities are accepted to be equally allocated per hours during Gas Day D.
- e) BULGARTRANSGAZ shall carry out a matching procedure of the Processed quantities for delivery/offtake at the IP per Network User pairs and within 45 minutes after the receipt of the message under item d) a DELRES message shall be sent to TRANSGAZ according to Edig@s-XML format. If there is a difference in the Processed quantities at both sides of the IP, then the “lesser rule” shall be applied.
- f) By UTC 15:00 (in winter time) and UTC 14:00 (in summer time) of Gas Day D-1, the Parties shall inform their Network Users about the confirmed quantities. Network Users which submitted single-sided nominations shall be informed by BULGARTRANSGAZ about their confirmed quantities.
- g) Network Users active on both sides of the IP shall have the right to re-nominate between UTC 15:00 (in winter time) and UTC 14:00 (in summer time) of Gas Day D-1 and UTC 02:00 (in winter time) and UTC 01:00 (in summer time) of Gas Day D. The Parties shall start a re-nomination cycle in the beginning of every hour, between UTC 16:00 (in winter time) and UTC 15:00 (in summer time) of Gas Day D-1 and UTC 02:00 (in winter time) and UTC 01:00 (in summer time) of Gas Day D. During each re-nomination cycle the notification



and matching procedure according d) and e) shall apply. For re-nominations a lead time of two hours prior to the start of implementation of the nomination shall apply.

- h) Two hours after the full hour following the Network Users` re-nomination request(s) receipt, the Parties shall inform their Network Users about the confirmed quantities. Network Users which submitted single-sided re-nominations shall be informed by BULGARTRANSGAZ about their Confirmed quantities.
- i) In case a single-/double-sided re-nomination has been rejected by a transmission system operator, the Parties shall use the Network User`s last Confirmed quantity, if any.
- j) In case TRANSGAZ has not sent to BULGARTRANSGAZ, until the expiration of the deadline specified in paragraph d) above, the Processed quantities (DELORD) for a Gas Day D, these shall be considered, by BULGARTRANSGAZ, equal to the Network Users` last Confirmed quantities, for the implementation of the matching process.
- k) In case TRANSGAZ has not sent to BULGARTRANSGAZ, in a given re-nomination cycle until the expiration of the deadline specified in paragraph g) above, the Processed quantities (DELORD) for a Gas Day D, BULGARTRANSGAZ shall consider, for the implementation of the matching process, the last Processed quantities for the Gas Day D, which were sent by TRANSGAZ to BULGARTRANSGAZ.
- l) In case BULGARTRANSGAZ has not sent the Confirmed quantities (DELRES) as a result of the Day-ahead nomination matching process for a Gas Day D to TRANSGAZ , until the expiration of the deadline specified in paragraph e) above, the Confirmed quantities (DELRES) shall be considered equal to the Network Users` last Confirmed quantities.
- m) In case BULGARTRANSGAZ has not sent a Confirmed quantities (DELRES) for a Gas Day D to TRANSGAZ in a given re-nomination cycle, until the expiration of the deadline specified in paragraph e) above, the last Confirmed quantities (DELRES) shall be considered as Confirmed quantities (DELRES) for that re-nomination cycle, as a result of the matching process.
- n) The matching processes under article 7.3 shall be performed in line with the requirements for common data exchange solution set out in Article 21.(2)(a) of Regulation (EU) N°2015/703 and shall be carried out using the Edig@s-XML data format and the AS4 communication protocol.

The Parties shall endeavour to provide a redundant data exchange method for the purposes of the matching process via web interface with the HTTP/S protocol which shall be used as a backup option in case of failure of the above-mentioned main data exchange solution.

Temporary data exchange method is agreed (Annex 2, Annex3, Annex 2A) and shall be used by the Parties only until the implementation of document-based data exchange solutions in line with the requirements of Article 21.(2)(a) of Regulation (EU) N°2015/703, using Edig@s-XML data format and AS4 communication protocol.

The implementation deadline of document-based data exchange solutions depends from the readiness of Transgaz and shall be the 1 July 2019 at the latest.

## **Article 8 - Allocation**

- 8.1 In respect of the allocation of gas quantities, TRANSGAZ and BULGARTRANSGAZ establish allocation procedure ensuring consistency between the allocated quantities at both sides of the IP. This allocation procedure shall be based on the Operation Balancing Account (OBA), specified below.
- 8.2 Under the OBA allocation procedure the Natural Gas quantity allocated for a Gas Day D to a pair of Network Users at the IP shall be equal to the Natural Gas quantity confirmed for

delivery/off-take, for that Gas Day D, to the said pair of Network Users, according to article 7.3.

$$Q_{AL,F,i}^D = Q_{C,F,i}^D \text{ and}$$

$$Q_{AL,R,j}^D = Q_{C,R,j}^D ,$$

where:

$Q_{C,F,i}^D$  is the confirmed quantity, for a given Pair of Network Users in the RO-BG direction, during the Gas Day D;

$Q_{C,R,j}^D$  is the confirmed quantity, for a given Pair of Network Users in the BG-RO direction, during the Gas Day D;

$Q_{AL,F,i}^D$  is the quantity allocated, to a given pair of Network Users in the RO-BG direction, during the Gas Day D;

$Q_{AL,R,j}^D$  is the quantity allocated, to a given pair of Network Users in the BG-RO direction, during the Gas Day D;

$i$ , is the pair of Network Users active in the RO-BG direction during the Gas Day D;

$j$ , is the Pair of Network Users active in the BG-RO direction during the Gas Day D;

8.3 The OBA allocation procedure shall not be applied in the event that:

8.3.1 The gas quality parameters are not in accordance with Annex 5A and Annex 5B of the Agreement and the Parties are not able to perform their daily nominations;

8.3.2 The pressure is not according to the specifications in Art. 12 of the Agreement and the Parties are not able to perform their daily nominations;

8.3.3 The provisions of paragraph 9.3., item (b) are implemented.

8.4 For each Gas Day D, when any of the conditions in paragraph 8.3 is in effect, the daily measured quantity is allocated to the pairs of NUs proportionally to their confirmed Natural Gas quantities in both directions of the IP. The OBA allocation procedure shall be re-applied on the next Gas Day D+1 after the Gas Day D in which all of the conditions in paragraph 8.3 are no longer in effect, unless both Parties mutually agree to postpone the application of the OBA for a specific period. Pro-rata allocated quantities shall be calculated by using the following formulas:

In the RO-BG direction:

$$Q_{AL,F,i}^D = Q_{C,F,i}^D + Q_{SD}^D * \frac{Q_{C,F,i}^D}{\sum_i Q_{C,F,i}^D + \sum_j Q_{C,R,j}^D}$$

In the BG-RO direction:

$$Q_{AL,R,j}^D = Q_{C,R,j}^D - Q_{SD}^D * \frac{Q_{C,R,j}^D}{\sum_i Q_{C,F,i}^D + \sum_j Q_{C,R,j}^D}$$

where:

$Q_{SD}^D$  is the steering difference during the Gas Day D:

$$Q_{SD}^D = Q_M^D - \sum_i Q_{C,F,i}^D + \sum_j Q_{C,R,j}^D$$

Each Gas Day for which the pro-rata allocation procedure applies, the OBA is updated by calculating the TBP, considering DBP that equals to zero (0).

- 8.5. The indicative allocation of Natural Gas quantities shall be carried out via an ALOCAT message according to Edig@s-XML format, for each Pair of Network Users, on a daily basis, until UTC 8:30 (winter time) and UTC 7:30 (summer time) for the previous Day. Temporary document-based data exchange method is agreed and shall be implemented by the Parties as a back-up solution in case of failure of the above mentioned data exchange method. The Daily Energy Allocation Protocol shall be in accordance with the standard form of Annex 4A and 4B of the Interconnection Agreement.
- 8.6. The daily quantity allocation protocols shall be accompanied with the respective daily measurement protocols for gas quantity and quality issued by the Upstream Operator in accordance with Annex 7A or Annex 7B.

### Article 9 - Operational Balancing Account

- 9.1. The Parties shall strive to reach an equality between the confirmed quantities and the actually metered quantities at the IP in order to maintain TBP as close as possible to zero, and to ensure that the LR specified in paragraph 9.2 is not violated.
- 9.2. The LR is specified by its lower limit value, which is set to -5,500,000 kWh and its upper limit value which is set to 5,500,000 kWh. The lower and / or upper value of the LR may be changed upon mutual agreement of TRANSGAZ and BULGARTRANSGAZ, in case of justified operational needs, including but not limited to:
- (a) Exceptional events
  - (b) Unplanned maintenance works
  - (c) Scheduled flow below the GMS Ruse – Giurgiu minimum measurement and / or flow control limits.
  - (d) Increase or decrease of the IP's technical capacity.
- 9.3. The Parties may operationally agree to:
- (a) temporarily expand the limits of LR for a certain number of consecutive Gas Days. The OBA expansion can be requested either before the end of the Gas Day D, when it becomes clear that there will be such situation (so the necessary actions are taken in due time), or once the Gas Day D has ended and the exact quantities exceeding the OBA limits are already known. The requests and the approvals of such temporary OBA limits expansion shall be submitted to the other Party in written form by e-mail. Any additional information can be clarified in advance by phone. In the requesting e-mail there should be a proposed deadline within which the requesting party will make all efforts to restore the TBP back in the normal OBA limits stated in paragraph 9.2. Approvals should be received by the requesting party before UTC 8:30 (in winter time) and UTC 7:30 (in summer time) of Gas Day D+1, in order to abide by the deadlines for allocation of the quantities. Both parties shall appoint their representatives and their contact information (email addresses, phone numbers and names if applicable), authorized to request and approve temporary OBA limits expansion for a specified time period. Both parties shall inform the other side in due time if any changes occur in the list of authorized representatives and their contact information.

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(b) suspend the implementation of the OBA allocation procedure, and apply the pro-rata allocation procedure, as per paragraph 8.4, for any Gas Day D at the end of which the TBP is not within the limits of LR. Each Gas Day D for which the pro-rata allocation procedure applies, the OBA is updated by calculating the TBP, considering DBP that equals to zero (0).

9.4. (a) In case of physical flow in the direction from Romania to Bulgaria, TRANSGAZ shall send daily to BULGARTRANSGAZ an Account Situation Document (ACCSIT) notification containing the TBP, in accordance with the Edig@s-XML format, not later than UTC 8:30 (in winter time) and UTC 7:30 (in summer time) on the Gas Day D+1.

(b) In case of physical flow in the direction from Bulgaria to Romania, BULGARTRANSGAZ shall send daily to TRANSGAZ an Account Situation Document (ACCSIT) notification containing the TBP, in accordance with the Edig@s-XML format, not later than UTC 8:30 (in winter time) and UTC 7:30 (in summer time) on the Gas Day D+1.

## **Article 11 - Monthly Allocation and Reports**

11.1 The final allocation of Natural Gas quantities for each Gas Day of the Month M, and for each Pair of Network Users, shall be carried out until UTC 13:00 (winter time) and UTC 12:00 (summer time) of the fourth calendar day of the Month immediately succeeding the Month M.

11.2 Monthly energy allocation protocols shall be issued by BULGARTRANSGAZ and signed by TRANSGAZ. The monthly allocation protocols shall be in accordance with the preliminarily approved forms as in Annex 4A and Annex 4B. The Natural Gas quantities, expressed in volume units, are registered in the allocation protocols for reference purposes only.

11.3 The data in the quantity allocation protocols shall be used by TRANSGAZ and BULGARTRANSGAZ for commercial purposes.

11.4 Each Party shall have the right to request corrections of the monthly quantity and quality reports within a period of three (3) months starting from the time the alleged discrepancy occurred. In such cases correction measurement protocols shall be issued by the party responsible for the equipment, the other Party shall sign those protocols if there are no objections and the corrected data will be deemed as the valid quantity/quality data. The allocation for the Network Users will not be changed and the difference with the original allocation protocol shall be added to the OBA account for the Gas Day for which the correction protocols are issued and signed.

11.5 The monthly quantity allocation protocols shall be accompanied with the respective monthly measurement protocols for gas quantity and quality issued by the Upstream Operator in accordance with Annex 7A or Annex 7B.

## **Article 12 - Technical Rules**

### **12.1. Border Pressures at IP Ruse – Giurgiu**

a) Natural gas supply to GMS Giurgiu shall be ensured under one of the following conditions (in case of deliveries in the RO-BG direction):

Minimum exit pressure: 40 barg;

Maximum exit pressure: 48 barg;

Minimum gas temperature: 0°C;

Maximum gas temperature: 38°C;

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b) Natural gas supply to GMS Ruse shall be ensured under one of the following conditions (in case of deliveries in the BG-RO direction):

Minimum exit pressure: 30 barg;

Maximum exit pressure: 40 barg;

Minimum gas temperature: 0°C;

Maximum gas temperature: 38°C;

## **12.2. IP capacity**

The maximum technical capacity of the IP shall be according to the latest Joint Method for the Calculation of the Technical Capacity according to Art. 6 of Regulation (EU) N<sup>o</sup>984/2013.

## **12.3. Interruption**

The below provisions shall be applicable for all interruptible services.

Should the circumstances so require Parties are entitled to initiate interruption of interruptible service.

Transmission System Operators shall include reasons for interruptions in the general terms and conditions that govern interruptible transport contracts. Reasons for interruptions can include but are not limited to gas quality, pressure, temperature, flow patterns, use of firm contracts, maintenance, up- or downstream constraints, public service obligations and capacity management deriving from congestion management procedures.

The extent of eventual interruption shall not be greater, than the level required by the given circumstances and shall not impose undue limitation of Network Users' rights.

The Party that initiates the interruption prior to or during the Gas Day shall notify the other Party within the relevant Matching procedure as stipulated in 7.3. Interruption lead time shall be minimum 2 (two) hours. The Parties shall notify their respective affected network users as soon as possible, but with due regard to the reliability of the information.

The Party that initiates the interruption shall also inform the other Party of the reason for the interruption ex post.

Intraday Interruptions are followed up by re-nomination. Result of re-nomination shall be handled, communicated as determined in Article 7.3. Before Gas Day D-1 result of Interruptions shall be handled, communicated via Matching, as determined in Article 7.3.

In case of interruption the order in which interruption shall be performed shall be determined based on the contractual timestamp of the respective transport contracts on an interruptible basis. Transport contract coming into force earlier shall prevail over transport contract coming into force later (LIFO). Only if two or more transport contracts on an interruptible basis are ranked at the same position within the interruption order and the relevant Party does not interrupt all of them, a pro rata reduction of these specific nominations shall apply.

The Parties may apply limitation in availability of firm bundled and unbundled capacities only in case of planned maintenance and Restriction.

## **Article 14 - Constraints and communication procedures in case of exceptional event**

Whenever a limit for the gas quality specification according to Annex [5A](#) and Annex [5B](#) is approached or exceeded, TRANSGAZ and/or BULGARTRANGAZ shall inform each other thereof and shall take appropriate measures to shut off such gas or organize the flow in a way accepted by the respective Downstream Operator. Depending on the position of the Downstream Operator, the gas will be interrupted or not, whilst the Upstream Operator shall immediately undertake corrective actions to bring the gas properties back on spec as soon as possible.

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In case of an exceptional event in the Romanian or Bulgarian gas pipeline, each Party shall inform the other Party within one hour of becoming aware of the exceptional event, on the following:

- the date and time when the exceptional event occurred and the estimated remedy duration;
- the estimated gas delivery or taking over regime;
- the necessary operations to restore the normal delivery - taking over regime;
- the change of gas pressure and quantity of the gas delivered and taken over.

The Parties shall report to the Dispatching Centers – that have round-the-clock contact each other at any time, their responsibilities regarding the operative command and the agreement of the current working regimes for the pipeline system that ensure gas delivery and taking over through the IP Ruse - Giurgiu, as well as any other operative problems of mutual interest. The communication shall be performed by means of telephone call for information, followed by a written confirmation;

Following the coordination of the current working regimes during an exceptional event, each Party shall inform in a prompt manner its affected network users, on the following:

- the date and time when the exceptional event occurred and the estimated remedy duration;
- the estimated gas delivery or taking over regime;
- the necessary operations to restore the normal delivery - taking over regime;
- the change of gas pressure and quantity of the gas delivered and taken over.
- if a constraint affects the quantities that were confirmed to the Network Users, before the constraint took effect, a new set of confirmed quantities for each pair of Network Users shall be established for the constraint period, and a new matching cycle shall commence. The net flow shall be in accordance with the sum of the new confirmed quantities. The Network Users shall be advised about the new confirmed quantities.
- any revision of the constraint shall initiate a new matching cycle, which will lead to revised confirmed quantities. Each Network User shall be informed about his changed confirmed quantities as soon as practicable.

Once the exceptional event ends, the relevant affected party shall inform the other party as soon as reasonably practicable and each party shall inform its respective affected network users accordingly.

Contact data of the Parties related to emergency activities are listed in Annex 6A and Annex 6B.