The Network Code for the National Gas Transmission System

Processed version

NOTICE: The English version of the Network Code is available for information purposes only. In the event of any discrepancies arising between the Network Code in the Romanian language and the Network Code in the English language, the provisions of the Romanian language version shall be legally binding.

SUMMARY OF THE RELEVANT LEGISLATION

1. The Network code for the National Gas Transmission System, approved by the Order of NERA's President no 16/2013 (published in the Official Journal Part I, no. 171 bis /29.03.2013)
2. Order No.120/20.02.2013 of ANRE President (Romanian Official Journal, Part. I, No. 32/15.01.2014);
3. Order No. 53/26.06.2014 of ANRE President (Romanian Official Journal, Part I, No. 478/28.06.2014);
4. Order No. 88/24.09.2014 of ANRE President (Romanian Official Journal, Part I, No. 709/29.09.2014);
5. Order No. 155/28.10.2015 of ANRE President (Romanian Official Journal, Part I, No. 806/29.10.2015);
6. Order No 160/26.11.2015 of ANRE President (Romanian Official Journal, Part I, No. 893/27.11.2015);
7. Order No 75/28.10.2016 of ANRE President (Romanian Official Journal, Part I, No. 866/31.10.2016);
8. Order No 36/17.05.2017 of ANRE President (Romanian Official Journal, Part I, No. 393/25.05.2017);
9. Order No 69/04.04.2018 of ANRE President (Romanian Official Journal, Part I, No. 314/10.04.2018);
10. Order No 161/01.08.2018 of ANRE President (Romanian Official Journal, Part I, No. 681/06.08.2018);
11. Order No 167/05.09.2018 of ANRE President (Romanian Official Journal, Part I, No. 801/19.09.2018);
12. Order No 204/14.12.2018 of ANRE President (Romanian Official Journal, Part I, No. 1066/17.12.2018);
13. Order No 35/27.02.2019 of ANRE President (Romanian Official Journal, Part I, No. 164/1.03.2019);
14. Order No 52/17.04.2019 of ANRE President (Romanian Official Journal, Part I, No. 301/18.04.2019);
15. Order No 170/24.07.2019 of ANRE President (Romanian Official Journal, Part I, No. 652/06.08.2019);

ORDER no 16/27.03.2013

approving the Network Code for the National Gas Transmission System

Considering the provisions of Art. 99 letters l) and m), of Art. 130 (1) letter o) and of Art. 200 (3) of the Power and Gas Law no 123/2012,

based on the provisions of Art. 5(1) letter c) and of Art. 10(1) letter o) points 2 and q) of the Government Emergency Ordinance no 33/2007 regarding the organization and operation of the National Energy Regulatory Authority (ANRE), as subsequently amended and supplemented by Law no 160/2012,

The President of the National Energy Regulatory Authority is issuing the following Order:

Art. 1 – The Network Code for the National Gas Transmission System, established by the Annex which is part of this Order, shall be approved.

Art. 2 – Within 60 days as of this Order date of publication in the Romanian Official Journal, Part I, the National Gas Transmission Company "TRANSGAZ" S.A. Mediaş shall draw up and submit for the National Energy Regulatory Authority's approval the following documents:

a) the procedure for verifying the requirements to be met by the users of the national gas transmission system;

b) the procedure regarding the method for calculating the energy of the natural gas stored in the pipeline.

Art. 3 – On the date of the enforcement of this Order, the following shall be repealed:

a) the National Energy Regulatory Authority President's Order no 54/2007 on the approval of the Network Code for the National Gas Transmission System, published in the Romanian Official Journal, Part I, no 71 and 71 bis of 30 January 2008, as subsequently amended and supplemented;

b) the National Energy Regulatory Authority President's Order no 31/2010 on the approval of tariffs established by Annex no 10 to the Network Code for the National Gas Transmission System, as approved by the National Energy Regulatory Authority President's Order no 54/2007, as well as concerning the approval of the purchase price of natural gas oversupplied in the national transmission system, published in the Romanian Official Journal, Part I, no 819 of 8 December 2010, as subsequently amended and supplemented.

Art. 4 - The National Gas Transmission Company Transgaz - S.A. Mediaş, users of the national transmission system, natural gas producers, natural gas suppliers, distribution system operators, end clients directly connected to the national transport system and storage system operators shall implement the provisions of this Order, while the relevant departments of the National Energy Regulatory Authority shall monitor the compliance with these provisions.

Art. 5 – This Order shall be published in the Romanian Official Journal, Part I, and shall enter into force on 1 April 2013.

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President of the

National Energy Regulatory Authority

Niculae Havrileţ

Annex

NETWORK CODE FOR THE NATIONAL GAS TRANSMISSION SYSTEM

CHAPTER I - GENERAL PROVISIONS

Scope

Art.1. – The Network Code regulates conditions and rules for the operation of the Romanian National Gas Transmission System.

Art.2. – (1) The provisions of the Network Code for the National Gas Transmission System, hereinafter referred to as the *Network Code*, are compliant with the provisions of Energy and Gas Law No. 123/2012, as further amended and supplemented, and of Regulation (EC) No. 715/2009 of the European Parliament and of the Council of 13 July 2009 on the conditions for access to the natural gas transmission networks and repealing Regulation (EC) No. 1775/2005, as further amended and supplemented, and shall be enforced by the National Gas Transmission Company Transgaz S.A. Mediaş, hereinafter referred to as the *transmission system operator,* by the users of the National Transmission System, hereinafter referred to as *network users,* by the gas producers, by the gas suppliers, as well as by the distribution system operators, by the direct clients and by the storage system operators.

(2) The Romanian Energy Regulatory Authority hereinafter referred to as the *Competent Authority (CA),* shall monitor the implementation of the Network Code provisions by the economic operators mentioned under paragraph (1).

Art.3. – The economic operators, mentioned under Article 2(1), may submit in writing, to the Competent Authority, Network Code amending proposals, specifying all the Network Code sections to be amended, accompanied by:

a) a brief presentation of the type and purpose of each proposed amendment;

b) any other documents (reviews, reports etc.) supporting the proposed amendments.

Art.4. – (1) based on the proposal of the economic operators mentioned under Article 2(1), the Competent Authority shall approve the Network Code amendment and/or supplementation, after having consulted the Working group established for this purpose. Competent Authority shall appoint the members of the Working group.

(2) The working group shall issue an opinion within 10 working days from the receipt of a request.

Art.5. – Each amendment and/or supplementation to the Network Code shall enter into force on the date of its publication in the Romanian Official Journal, Part I.

Art.6. – (1) The following abbreviations shall be used in the Network Code:

CA – Competent Authority

DC – Direct Client

LNG – Liquefied Natural Gas

OBA – Operational Balancing Account

DSO – Distribution Operator

SSO – Storage System Operator

TSO – Transmission System Operator

BM – The Balancing Gas Market

CPBM – Closing price of the Balancing Gas Market

MCM – Main Capacity Market

SCM – Secondary Capacity Market

VTP – Virtual Trading Point

SCADA – Monitoring, control and data acquisition system

DS – Gas Distribution System

S_{cm} – standard cubic meter (volume metered under basic conditions: temperature 15°C and pressure 1,01325 bar);

NTS – Romanian National Gas Transmission System

MRS – Gas Metering Regulating Station

DIT – Daily imbalance tariff

NU – Network User

(2) For the purpose hereof, the following terms shall be defined as follows:

Allocation	Assignment of gas amounts to network users, at the entry and exit points, according to the Network Code, by the neighbouring system operators or, if appropriate, by the TSO.
Year	Calendar year.
Gas year	Period of time starting at 06.00 a.m. on 1 October of the current year and ending at 06.00 a.m. on 1 October of the next year.
Incremental capacity	A possible future increase, by means of market based procedures, of the existing technical capacity or of a possible newly created capacity where currently there is no such capacity which may be offered based on investment in the physical transmission infrastructure and which may be subsequently allocated, subject to the positive economic test in the NTS entry/exit points or by creating new NTS entry/exit points .
Booked transmission capacity	The capacity approved by the TSO under contract, based on the request of the NU, expressed in MWh/day, which the TSO shall make available to the NU at any time over the transmission contract validity period, under firm or interruptible conditions.

NU clients	Contractual counterparts of the network users, for which the NUs shall enter into a transmission contract with the TSO.
Basic conditions	The specified conditions under which the measured gas amount is converted.
Operational balancing account	An account between the TSO and the SSO or between the TSO and the natural gas producers, used for the management of differences in steering gas flows in the entry/exit points located at the interface between the NTS and the underground storage facility in the case of the SSO or in the management of the differences between the gas quantity introduced in the NTS and the one nominated by producers, in order to simplify the accounting of the gas quantities for the concerned NU.
Direct client	The final client connected directly to the NTS, other than the client which has concluded a gas transmission contract in its own name.
Daily imbalance	The difference between the NTS gas day gas intakes and offtakes.
Operational balancing	Represents the actions the TSO is obliged to take so that: a) the gas quantity forecasted to be present in the NTS in the end of the gas day D to be within the optimum NTS operation limits, as settled by the operational procedures of the TSO and published on its internet page. b) To compensate until the end of the gas day D the imbalances between the inputs and outputs of the relevant gas day for the

	economically and efficiently viable operation of the national transmission system
Use it or lose it	The loss of the right to the approved and unused capacity.
Force Majeure	any external, unpredictable, absolutely invincible and inevitable event releasing any default party from liability, according to the law.
Balancing gas	Gas volumes required to ensure the physical balancing of NTS under normal operating condition.
Month	Calendar month
Calibration log	Document recording the date, method and authorized person who carried out the calibration of the transducers at the NTS entry/exit points.
Notification	Information made available to the participants to the BM , related to the gas quantities traded on the BM for each delivery gas day
Neighbouring system operator	Infrastructure operator located at the interface with the NTS, upstream and downstream (neighbouring producers, suppliers, direct clients, DSO, storage system operators)
Third party operator	The economic operator appointed by the producers to ensure the operation of a physical entry point from the production field in line with the regulations in force
Main capacity market	the framework, made available and operated by the TSO, organized for the conduct of the contracting and contract performance activities

	related to the transmission services between various economic operators and TSOs
Secondary capacity market	the organized framework, made available and operated by the TSO, for the conduct of the activities related to the transfer of the capacity use right and to the complete transfer of the rights and obligations arising from the transmission contracts between various NU or between the NU and economic operators.
NU client portfolio	All NU clients for whom NU enters into gas transmission contracts with the TSO.
Balancing price	The price automatically calculated by the trading system of the BM so that the tradable quantity to be maximum and the absolute value of the positive imbalance to be minimum
Market closing price	The balancing price from the trading day determined upon the closing of the gas balancing market
Minimum capacity threshold	The minimum aggregate level of the binding commitments for contracting incremental capacity expressed by all the applicants, potential network users within an incremental capacity process ensuring the economic viability of the incremental capacity project
First-come, first-served	Principle based on which TSO allocates the available capacity, in order of request receipt, within each priority level.
Matching procedure	Procedure by which TSO compares the nomination of a network user with the data provided by its counterparts.

Incremental capacity process	~~a)~~ An open and transparent market demand evaluation process for incremental capacity that includes a non-binding phase in which applicants, potential network users, express or quantify their demand for that capability, and a binding phase, where the transmission system operator requires applicants, potential network users, binding commitments for contracting incremental capacity
Transmission schedule	Annual transmission schedule provided by the network users and agreed with TSO which specifies the monthly gas quantities to be delivered to/taken over from NTS; this is attached as Annex to the gas transmission contract.
Incremental capacity project	An investment project aimed at increasing the technical capacity of an existing entry/exit point in/out of the NTS or creating a new entry/exit point in/out of the NTS based on capacity booking within an incremental capacity process
Transmission services	Activities and operations carried out by the TSO for or in connection to the booking of transmission capacity and the transmission of the relevant gas volumes, expressed in energy units, through the NTS, during the validity period of a gas transmission contract.
Neighbouring system	Transmission / distribution / storage / production pipeline and facility system / direct client facilities connected to the NTS.
Economic test	

	A test applied for the evaluation of the economic viability of the incremental capacity projects
Energy unit	Measurement unit expressed in MWh.
Volume unit	Volume measurement unit expressed in cubic meters – m^3 – or thousand cubic meters – thousand m^3.
Network user	Any user, as defined in the Electricity and Gas Law no 123/2012, as subsequently amended and supplemented.
Pro rata	Principle of allocation proportional to the nomination of gas quantities at NTS points, applied by TSO to the network users, under the Network Code.
Day	Calendar day.
Gas day	Time frame starting at 07.00 a.m., the Romanian time, of any day, and ending at 07.00 a.m., the Romanian time, of the following day. The gas day shall be reduced to 23 hours when shifting to the daylight saving time and increased to 25 hours when shifting to the winter time; all related rights and obligations under the gas transmission contracts shall be decreased or increased accordingly, during the relevant gas days.

(3) The terms set forth in paragraph (2) shall be supplemented by those defined in Energy and Gas Law No. 123/2012, as further amended and supplemented, and in Regulation (EC) No. 715/2009 as further amended and supplemented.

CHAPTER II – NTS ENTRY/EXIT POINTS

Art. 7 - (1) This Chapter describes the NTS entry/exit points for the network users, in terms of the access to the NTS, according to the procedures established by this Network Code.

(2) For the performance of the operational/commercial procedures stipulated in the Network Code, the NTS entry / exit points may be physical as well as virtual.

Art. 8 Abrogated

NTS Entry Points

Art. 9 - The physical entry point shall be the point represented by the fiscal/commercial metering system/equipment where, under the NTS entry points gas transmission contract, the NU delivers and the TSO takes over gas from the neighbouring systems for transmission through the NTS.

Art. 10 Abrogated

Art. 11 Abrogated

Art. 12 Abrogated

Art. 13 - The NTS physical entry points are:

a) physical entry points from production fields;

b) physical entry points from underground storage facilities (for gas withdrawal from underground storage facilities);

c) physical entry points from other gas transmission systems of EU countries;

d) physical entry points from other gas transmission systems of third countries, non-EU countries;

e) physical entry points from LNG terminals;

f) physical entry points from facilities for biogas production and production of other gas compliant with the quality conditions enabling its NTS delivery/transmission.

Art. 13[1]. – (1) A virtual entry point is the notional point obtained by grouping several physical entry points of the same type.

(2) The NTS virtual entry points are:

a) virtual entry points from production fields. For each producer a virtual entry point from production fields shall be established by the grouping of the physical entry points from the production fields operated by such producer. The physical entry point from the production fields, common for several producers, shall be allocated accordingly to the virtual point of each such producer. If a producer owns a single physical point at the NTS interface, such point shall be assimilated with a virtual point.

b) virtual entry points from underground storage facilities, for gas withdrawal from underground storage facilities. For each storage system operator a virtual entry point from underground storage facilities shall be established by the grouping of the physical entry points from the underground storage facilities operated by such storage system operator. If an underground storage system operator owns a single physical point at the NTS interface, such point shall be assimilated to a virtual point.

c) virtual entry points from gas transmission systems of EU countries. If there are several NTS physical entry points from the same gas transmission system of a neighbouring EU country, a virtual entry point may be

established by the grouping of the NTS physical entry points from the same transmission system of such country;

d) virtual entry points from gas transmission systems of third countries, non-EU countries. If there are several NTS physical entry points from the same gas transmission system of a neighbouring non-EU country, a virtual entry point may be established by the grouping of the NTS physical entry points or of some parts of the physical NTS entry points from the same transmission system of such country;

e) virtual exit points to the DC. For each DC, a virtual exit point is constituted by gouping the exit physical points to that DC. If a DC has a single physical NTS exit point such point shall be assimilated to a virtual point.

Art. 13². –The technical capacity of each virtual entry point shall be determined by totalling the technical capacities of the composing physical entry points.

NTS Exit Points

Art. 14 - (1) The physical exit point shall be the physical point represented by the fiscal / commercial metering system / equipment where, under the NTS exit points gas transmission contract, the TSO delivers and the NU takes over gas transmitted through the NTS for delivery to the neighbouring systems/DC.

(2) In the case of the towns supplied by means of several interconnected / non-interconnected physical points, based on the request of a DSO, the TSO may replace the relevant physical points by a ring point of physical exit point nature, as defined in paragraph (1).

Art. 15 Abrogated

Art. 16 Abrogated

Art. 17 - The NTS exit points are:

a) physical exit points to distribution systems;

b) physical exit points to DC;

c) physical exit points to underground storage facilities for gas injection into the underground gas storage facilities;

d) physical exit points to other gas transmission systems of EU countries;

e) physical exit points to other gas transmission systems of third countries, non-EU countries;

f) physical exit points to upstream pipeline networks.

Art. 17[1]. - (1) A virtual exit point is the notional point obtained by grouping physical exit points of the same type.

(2) The NTS virtual exit points are:

a) virtual exit points to distribution systems. For each distribution system operator a virtual exit point to distribution systems shall be established by the grouping of the physical exit points to the distribution systems operated by such distribution system operator;

b) virtual exit points to underground storage facilities, for gas injection into underground storage facilities. For each storage system operator a virtual exit point to underground storage facilities shall be established by the grouping of the physical exit points to the underground storage facilities operated by such storage system operator. If an underground storage system operator owns a single physical point at the NTS interface, such point shall be assimilated to a virtual point.

c) virtual exit points to gas transmission systems of EU countries. If there are several NTS physical exit points to the same gas transmission system of a neighbouring EU country, a virtual exit point may be established by the grouping of the NTS physical exit points to the same transmission system of such country;

d) virtual exit points to gas transmission systems of third countries, non-EU countries. If there are several NTS physical exit points to the same gas transmission system of a neighbouring non-EU country, a virtual exit point

may be established by the grouping of the NTS physical exit points to the same transmission system of such country;

e) virtual exit points to DC. For each DC a virtual exit point is established by the grouping of the physical exit points to such DC. If a DC owns a single physical MTS exit point, such point shall be assimilated to a virtual point.

Art. 17[2]. - The technical capacity of each virtual exit point shall be determined by totalling the technical capacities of the composing physical exit points.

Art. 17[3]. - The list of virtual points and composing physical points in Annex 11 and the list of physical points not grouped as virtual points in Annex 12 to the Network Code shall be published on TSO`s web site and shall be updated by it whenever an amendment and / or supplementation of its content has been made, within one working day from its / their date.

VTP access and use rules

Art.17[4]. – VTP access

(1) In order to have access to the VTP, the NU (end client, trader, DSO and SSO) shall conclude with the TSO a balancing and VTP access contract, according to the template in Annex 1[3].

(2) If the balancing and VTP access contract with the TSO is not concluded, as well as in case of termination or suspension of such contract due to the NU`s failure to meet its contractual obligations, the TSO shall deny the NU`s right to trade at the VTP and shall interrupt the transmission service constituting the scope of the NTS entry/exit transmission contracts, with the prior notification of the NU.

(3) In order to have access to the VTP, the centralized market operators and the central counterparties shall conclude with the TSO an agreement on the VTP access and data exchange.

(4) Participants in the VTP trading referred to in paragraph (1) and (3) shall notify the transfers of the ownership right expressed in energy units daily on the IT platform of the VTP.

(5) Requests for the conclusion of a balancing and VTP access contract and the agreement on the VTP access, as applicable, shall be submitted before the date on which the trading participant intends to notify the VTP trade. The request shall contain at least the following information: identification data, type of participant (final client, DSO, SSO, operator of the centralized market, trader, central counterpart) and shall be accompanied by supporting documents.

(6) The TSO shall respond to the request submitted in accordance with the provisions of paragraph (5) no later than 10 working days after its receipt by sending the contract, signed, in 2 original counterparties, or its reasoned rejection.

(7) The NU shall return the contract signed by its legal representatives at least 5 working days prior to the date of the first VTP notification.

(8) The NU shall provide the TSO with the proof of rating/establishment of the guarantee related to the balancing and VTP access contract at least 3 working days prior to the date of the first VTP notification.

(9) Access to the VTP IT platform shall be granted according to the procedure for the access to the IT platform of the TSO. The procedure for the access to the IT platform shall be published on website of the TSO. After granting access to the IT platform, each participant is assigned an identification code.

(10) The NU shall have the right of access to the transfer of the ownership rights offered by TSO at the VTP over the validity of the balancing and VTP access contracts concluded with TSO.

Art. 17^{5} Registration of VTP notifications

(1) Notifications shall be submitted by the trade participants referred to at Art. 17^{4} (1) and (3), as applicable, directly, on the VTP IT platform and shall contain the following information:

a. the identification code of the NU transferring the ownership right;

b. the identification code of the NU receiving the ownership right;

c. the gas day to which the notification refers to;

d. the quantity of gas for which the ownership right is transferred, expressed in energy units;

e. type of notification (transfer or receipt of ownership right).

(2) Notifications or notification changes shall be submitted to the TSO for each day separately by the end of the gas day to which the notification refers. The TSO shall confirm receipt of notifications/notification changes. The participant in the trade shall be responsible for providing the IT means enabling it to transmit and receive information by using the VTP IT platform.

(3) If, for technical reasons, the VTP IT platform is not operational, information shall be exchanged through the following alternative communication services:

a) e-mail, in the format specified in the VTP module technical documentation, which is part of the VTP IT platform;

b) fax, if the communication service at a) is not available.

Art. 17[6] Ownership transfer notifications verification and validation

(1) To validate notifications the TSO shall verify:

a) whether the notification contains the entire information requested;

b) whether the participant in the trade meets the VTP access conditions;

c) when the notifications are submitted by the central counterpart or by the operator of the trading platform, whether the total net selling positions are equal to the total net buying positions. Notifications submitted by the operators of the trading platform or by the central counterparties on behalf of the NU shall be recorded directly in the NU`s portfolio without being necessary a confirmation from its part.

d) when the notifications are submitted by the NU, the TSO shall match the two notifications, and in case of discrepancies the lesser rule shall be applied.

(2) The TSO shall reject the notifications which do not meet the conditions at (1) (a) and (b) and shall notify the NU on this rejection specifying the reasons.

(3) After the validation of the notification the TSO shall send a confirmation to the NU involved in the trade.

Art. 17[7] Confirmation of transfers of ownership rights, based on the validated notifications

(1) The ownership right shall be transferred when the TSO`s confirmation to the NUs involved in the trade is sent.

(2) In the case of transfers of ownership right notified by the central counterpart or by the operator of the trading platform, the TSO shall automatically confirm the relevant quantities within no more than 30 minutes from the registration of the notification.

(3) In the case of bilateral transfers, the TSO shall calculate the transferred quantity, based on the lesser rule, every 30 minutes during the gas day and shall confirm the quantities transferred to the parties within no more than 1 hour from the registration of the notification. The transferred quantity shall be calculated as the difference between the sum of the quantities notified as sold and the sum of the quantities notified as purchased by the same NU pair. For the calculation of the quantity related to a transfer of ownership right, the TSO shall consider the latest version of the notifications regarding the relevant transfer.

Art. 17[8] Allocation of transfers of ownership rights confirmed in the NU`s portfolio.

(1) The quantities covered by the confirmed ownership transfers shall be taken into account at the calculation of the NU daily imbalance as follows: sales notifications shall be recorded as outputs from the NU`s portfolio, and purchase notifications shall be recorded as inputs in the NU`s portfolio.

(2) The NU initial and final daily imbalances shall be presented in a report regarding each NU following completion of the imbalance calculation procedures.

Commercial procedures/operations conducted at the NTS entry/exit points[1]

Art. 18 - (1) The following procedures/operations established by the Network Code shall be applied at the NTS virtual exit points:

a) capacity booking;

b) communication of transmission schedule;

c) nomination/re-nomination;

d) nomination matching;

e) allocation;

f) capacity return;

g) transfer of right to use the capacity booked;

h) complete transfer of the rights and obligations under the NTS entry points transmission contract / NTS exit points transmission contract;

i) determination of compliance with and assurance of the level of capacity booked and the application of the tariffs for exceeding the capacity booked and non-assurance of the capacity booked.

(3) Abrogated

(4) Abrogated

Art. 19 Abrogated

Art. 20 - Abrogated

Art. 21 - Abrogated

[1] The subtitle is abrogated.

CHAPTER III – ACCESS TO NTS TRANSMISSION SERVICES

Art. 22 - TSO shall ensure non-discriminatory access to the available capacity at the NTS entry/exit points.

Art. 23 - (1) The capacity required by TSO to operate and maintain the system, split into NTS entry/exit points, shall be submitted annually for approval to CA, by the 15th of March.

(2) CA shall analyse and approve the required capacity by the 31st of March.

Art.24. – (1) The TSO shall offer the following firm and/or interruptible (only if firm capacity products are not available) capacity products:

a) annual – for one or multiple gas years;
b) quarterly – for one quarter or multiple quarters of the gas year (subsequent quarters of the gas year starting with 1 October, 1 January, 1 April, 1 July);
c) monthly – for one month or multiple months of the gas year;
d) daily – one gas day or multiple gas days of the month;
e) within-day – for the remaining hours until the end of the same gas days.

(2) The product at (1) (e) shall be offered by the TSO for the virtual entry points at Art. 13^1 (2) (a) and (b) and for the virtual exit points at Art. 17^1 (2) (a), (b) and (e) starting with 01.10.2019.

Art. 24^1 – The TSO shall offer capacity booking services by NTS entry/exit points, separately.

Art. 25 - (1) TSO shall offer capacity at the NTS entry/exit points, based on the 'first-come, first-served' principle, in the following order of priority:

a) for the capacities requested in order to meet the public service obligations;
b) for the capacities requested to serve other purposes than the fulfilment of public service obligations.

(2) Notwithstanding the provisions of paragraph (1), the principles of capacity offering at the points of interconnection with a neighbouring transmission system may be different, according to the agreements established between the interconnected transmission system operators.

Capacity booking at entry points from production blocks

Art. 25[1] – (1) Capacity shall be booked at NTS virtual entry points from production blocks.

(2) Capacity at NTS entry points from production blocks may be booked only by the title holder producer of the virtual point or by the third party operator appointed by such producer.

(3) The technical capacity of the virtual points shall be calculated as a sum of the technical capacities of the physical points and, as applicable, share of the producer for the physical points where multiple producers sell gas.

(4) The NTS entry physical points from production blocks shall be operated according to an interconnection agreement concluded between the TSO and the producer or, as applicable, with the third party operator.

(5) The interconnection agreements in paragraph (4) contain at least provisions relating to:

a) the metering of gas quantities;
b) control of gas flow. The producer/third party operator shall control gas flows so that the quantities accounted for in the OBA be as close as possible to 0;
c) setting the OBA limit. These limits take into account the flow control technical possibilities and possible metering corrections;
d) the gas quality;
e) data exchange;
f) procedures in case of emergency;
g) details of the technical parameters for each physical point;

h) the rights, obligations and liability of the parties.

Capacity booking at the entry/exit points at the NTS/underground storages

Art. 25[2] – (1) The physical points at the interface with the underground storage facilities are grouped into virtual NTS entry/exit points, one for each storage system operator.

(2) Capacity shall be booked at the virtual NTS entry/exit points.

(3) If a storage system operator holds a single physical point at the NTS interface, such point shall be assimilated to a virtual point.

(4) The available virtual point capacity shall be calculated as sum of the available capacities of the physical points constituting the virtual point and shall be published by the TSO on its website.

(5) The NTS entry/exit points at the interface with the storage shall be operated according to an interconnection agreement concluded between the SSO and the TSO.

(6) The interconnection agreements contain at least provisions relating to:

a) the business rules (establishing the SSO-TSO client pairs, the data flow regarding nominations/re-nominations, their matching/confirmation, allocation of quantities by NU);
b) control of gas flow. The SSO shall control gas flows injected into/withdrawn from the NTS, so that the quantities accounted for in the OBA be as close as possible to 0;
c) the metering of gas quantities;
d) setting the OBA limit. These limits take into account the flow control technical possibilities and possible metering corrections;
e) the gas quality;
f) data exchange;

g) procedures in case of emergency;

h) details of the technical parameters for each physical point;

i) the rights, obligations and liability of the parties.

Capacity booking at exit points to DS

Art. 25[3] – (1) The physical exit points to DS are grouped into virtual exit points, one for each DSO.

(2) Capacity shall be booked at the virtual exit points to DS by the NU which is:

a) an end client connected to the DS, having a distribution contract with the DSO;

b) a supplier for its own portfolio of end clients connected to the DS, having a distribution contract with the DSO;

c) a supplier for its own portfolio of end clients connected to the DS for which it also has he quality of DSO for the relevant DS;

d) DSO for ensuring technological consumption, as applicable.

(3) If a DS is connected to another DS connected to the NTS, the capacity of the virtual point related to the DS connected to the NTS shall also include the capacity of the downstream DS.

(4) The capacity shall be booked by the NU according to Art. 36, depending on the consumption needs of the end clients in their own portfolio, connect to the DS of each virtual exit point to the DS.

(5) The DSO shall inform the TSO of each change of supplier by the end clients in its own portfolio, connected to the DS, at least 5 days before the first actual gas delivery day by the new supplier to the relevant end client.

(6) If, after the capacity booking period, a distribution contract is concluded for a new consumption place, the DSO shall inform the TSO by transmitting the supplier's identification data and the capacity calculated for the supplying of that consumption place by at least 5 days before the first day of actual gas delivery to the relevant end client.

(7) The available capacity at the virtual points shall be calculated as the sum of the available capacities at the physical points constituting the relevant virtual points.

(8) The TSO and the DSO connected to the NTS shall conclude a systems interconnection agreement containing at least provisions relating to:

a) the metering of gas quantities;
b) the gas quality;
c) details of the technical parameters for each physical exit point to the DS;
d) data exchange;
e) procedures in case of emergency;
f) the rights, obligations and liability of the parties.

(9) If a DS is connected to another DS connected to the NTS, they shall conclude a DS-DS interconnection agreement including also the NU in the downstream DS – TSO – upstream DS relation.

(10) The DS-DS interconnection agreement shall include at least the following:

a) the technical parameters of the physical points;
b) data exchange between the parties and the transmission terms;
c) procedures in case of emergency.

Capacity booking at exit points to DC

Art. 25[4] – (1) Capacity shall be booked at the virtual exit points to each DC connected to the NTS.

(2) The TSO and the DC shall conclude an agreement containing at least provisions relating to:

a) the technical parameters of the physical points;

b) data exchange between the parties;

c) procedures in case of emergency.

Requirements regarding the access to the NTS Transmission Services

Art. 26 - (1) The capacity is booked by the NU, by signing with the TSO a NTS entry points transmission contract or a NTS exit points transmission contract according to the transmission contracts under Annex 1 and 1^2.

(2) The booked capacity is either firm or interruptible.

(3) The NU may have several of the contracts mentioned at paragraph (1), as applicable.

Art. 27 - The transmission contract shall be concluded only by meeting the following requirements:

A. Financial requirements:

(i) before entering into the transmission contract, NU shall provide the TSO with the proof of the rating assigned by a financial institution/rating agency;

(ii) if the relevant rating is valid for the parent company of NU applying for access, the proof shall be accompanied by a letter from the parent company stating the commitment of the latter to guarantee the payment liabilities of NU applying for access to the NTS;

(iii) the proof of the rating assigned to NU or to the parent company, accompanied by the letter stating the commitment to guarantee the payment liabilities of NU, shall be submitted simultaneously with the capacity booking request;

(iv) the minimum rating accepted shall be that assigned to TRANSGAZ or equivalent.

(v) if the NU applying for access to NTS is unable to give proof of the rating under (i), it shall submit a financial guarantee issued by a financial institution/bank. For the yearly and quarterly products, the financial guarantee established by the NU shall be equal to the average value of the monthly invoices estimated for the transmission services for the following period of use. For the monthly product the financial guarantee established by the NU shall be equal to the value of the monthly invoice estimated for the transmission services for the following period of use;

(vi) the financial guarantee may be established in cash, as guaranteed account (collateral deposit), as payment guarantee (letter of bank guarantee) issued by a mutually agreed bank and/or as escrow account;

(vii) if the tariff for capacity booking is increased by over 20%, the value of the original guarantee shall be accordingly adjusted; the TSO shall notify all NU in this regard and shall request the adjustment of the original guarantee within five (5) calendar days from the increase of the tariff for capacity booking.

(viii) the financial guarantee provided under the draft contract shall be activated as soon as the transmission contract is accepted and signed;

B. Technical requirements:

(i) the TSO has an IT platform established according to the provisions hereof. The TSO servers are synchronized with a time server defined in the IT platform operating documentation;

(ii) the NU shall have the IT means enabling them to send information to the TSO IT platform, according to the provisions of the Network Code;

Art. 28 - (1) The failure to fulfil the aforementioned financial and/or technical access requirements, at any time during the transmission contract validity period, may represent a ground of transmission contract termination.

(2) TSO shall terminate the contract based on a prior notification sent to the NU; the notification shall be accompanied by a compliance term of minimum one working day. The termination is also communicated to the neighbouring system operators on the NTS entry/exit points in which the NU booked transmission capacity.

Art. 29 - (1) TSO shall publish on its webpage the identification data of all NU meeting the requirements established for the transmission contract signing and/or for the balancing and VTP access contract.

(2) Within 2 months as of the date of the Network Code publication in the Romanian Official Journal, the TSO shall prepare a procedure for verification of the requirements established by Art. 27 for the NU requesting the transmission contract to be concluded.

(3) The procedure specified under paragraph (2) shall be approved by CA and published on the TSO webpage.

Capacity Booking

Art. 30 - (1) The capacity shall be booked at the NTS entry/exit points, as energy units.

(2) The capacity applied for shall be calculated by considering the annual average gross calorific power as determined based on the previous calendar year data.

(3) With respect to the transmission contracts concluded for multiple gas years, the booked capacity shall be annually re-calculated according to the provisions of paragraph (2).

Art. 31 - The NU shall be entitled to apply only for the capacity required:

a) in order to meet the contractual obligations according to its own client portfolio;

b) in order to execute the storage contracts;

c) for its own consumption.

Art. 32 - (1) The NU shall be entitled to apply for capacity beyond the current client portfolio, provided that the request is supported by documents, with at least ten (10) days before the beginning of the period for which the capacity is requested.

(2) The NU applying for additional capacity must give a statement including the reasons for requesting additional capacity and to send to the TSO the applicable transmission schedule if the additional capacity request is approved.

(3) The following reasons may be construed as reasons for the approval of the additional capacity:

a) the inclusion of new clients in the current client portfolio, which do not come from the portfolio of other NU;

b) the connection of an isolated consumer from the NU portfolio to a DS connected to the NTS;

c) applications from the current clients as a result of the increase of the installed flow as compared with the existing one the moment the transmission contract was signed.

(4) The Statement stipulated in paragraph 2 may be submitted both nominally, per client, or as a master list.

(5) Transmission contracts shall be signed in relation to the capacity applied for based on the estimated client portfolio of each NU.

(6) The NUs shall constantly update their client portfolio and shall inform the TSO, within five (5) working days, on the changes made.

(7) The TSO shall implement the amendments in the transmission contracts accordingly, notifying them to the neighbouring system operators in the entry/exit in/from the NTS for which the additional booked capacity was approved.

Art. 33 - For the NTS entry/exit points, irrespective of their ownership conditions, TSO shall be entitled to book capacity and to carry out the other operations established by the Network Code.

Art. 34 - In order to book capacity at import entry points from the production fields and underground storage facilities, as well as at the exit points to the underground storage facilities, the NU applying for capacity at such points shall issue a statement compliant with the model from Annex no 2.

Art. 35 - In order increase of the approved capacity, the NU shall follow the same procedure as in case of the capacity request, according to the provisions of Art. 37.

Capacity demand procedure

Art. 36 - (1) Transmission capacity at the Csanadpalota point interconnecting the NTS with the gas transmission system in Hungary, at the Isaccea I, II and III points interconnecting the NTS with the gas transmission system in Ukraine, at the Negru Voda I, II and III points interconnecting the NTS with the gas transmission system in Bulgaria, at the Negru Voda physical exit point– code SM1149DO, at the Mangalia exit point – code SM1262DO and at the new interconnection points of the NTS with the gas transmission systems in EU member states neighbouring Romania shall be booked in line with the specific regulations adopted by the CA.

(2) The annual and quarter capacity at other NTS entry/exit points than the ones under (1) shall be booked according to the following calendar:

(a) as of the first Monday of July of each calendar year, within 6 working days, the transmission capacity applicants at the NTS entry/exit points send their applications for annual capacity booking for 1 October of the current gas year and 1 October of the following gas year;

b) as of the first working day from the expiry of the deadline under (a), within 5 working days, the TSO analyses the annual capacity booking requests sent by the applicants and notifies them on the approval or rejection of the annual transmission capacity booking requests, as appropriate, by a notification prepared according to Annex 4;

c) within two working days from the receipt of the communication from the TSO related to the rejection of the annual transmission capacity booking request, the applicants of annual transmission capacity may send to the TSO, in writing, the potential objections;

d) within two working days from the receipt of the objections prepared by the applicants of annual transmission capacity in line with (c) the TSO prepares and sends to the applicants its reply regarding the notified objections;
e) as of the first working day from the expiry of the deadline under (d), within 6 working days, the transmission capacity applicants in the NTS entry/exit point send their quarterly transmission capacity applications for each of the quarters of the gas year 1 October the current calendar year – 1 October the following calendar year, namely for the quarter 1 October the current calendar year – 1 January the following calendar year, the quarter 1 January – 1 April the following calendar year, the quarter 1 April – 1 July the following calendar year and the quarter 1 July – 1 October the following calendar year;
f) as of the first working day from the expiry of the deadline under (g), within 4 working days, the TSO analyses the quarterly transmission capacity booking requests sent by the Applicants and notifies them on the approval or rejection of the quarterly transmission capacity booking requests, as appropriate, by a notification prepared according to the model provided in Annex 4;
g) within two working days from the receipt of the TSO's notification regarding the rejection of the quarterly transmission capacity booking requests, the applicants for quarterly transmission capacity may send to the TSO, in writing, the possible objections;
h) the daily capacity booked for a gas year shall be made available to the NU on a constant level each day of the relevant gas year;
f) the capacity remaining available after the contracting of the yearly product shall be offered as quarterly products;
g) as of the first Monday of August, November, February and May, within 6 working days, the applicants of annual transmission capacity in the NTS entry/exit points send their applications for booking quarter transmission capacity for each of the quarters of the gas year 1 October current calendar year – 1 October the following gas year, respectively: quarter 1 October current calendar year – 1 January the following calendar year, the quarter 1 April – 1 July the following calendar year and the quarter 1 July – 1 October the following calendar year;

h) within two working days from the receipt of the objections prepared by the applicants for quarterly transmission capacity in line with the provisions of letter g) the TSO shall prepare and send to the applicants its reply to the objections notified;

i) as of the first day from the expiry of the deadline provided at letter h) within 4 working days, the TSO shall send to the applicants whose requests for annual and quarterly transmission capacity booking requests were approved the gas transmission contracts in two counterparts for signature;

j) within two working days from the receipt of the gas transmission contracts, the applicants shall activate the financial guarantee, as appropriate, in line with the conditions at Art. 27 (A) and send to the TSO the signed copies of the transmission contracts for signature, if they agree to them, and their objections regarding the content of the transmission contract, within the limit of the provisions of the gas transmission contract under Annex 1 and Annex 1^2. If there are objections regarding the content of the contract, the TSO and the transmission capacity applicants shall resolve them jointly and ensure that the transmission contract is concluded before the date of the beginning of the gas year 1 October of the current calendar year – 1 October of the following calendar year.

Starting with **01.07.2019**, according to (2) The annual and quarter capacity at other NTS entry/exit points than the ones under (1) shall be booked according to the following calendar:

(a) as of the first Monday of July of each calendar year, within 6 working days, the transmission capacity applicants at the NTS entry/exit points send their applications for annual capacity booking for 1 October of the current gas year and 1 October of the following gas year;

b) as of the first working day from the expiry of the deadline under (a), within 5 working days, the TSO analyses the annual capacity booking requests sent by the applicants and notifies them on the approval or rejection of the annual transmission capacity booking requests, as appropriate, by a notification prepared according to Annex 4;

c) within two working days from the receipt of the communication from the TSO related to the rejection of the annual transmission capacity booking request, the applicants of annual transmission capacity may send to the TSO, in writing, the potential objections;

d) within two working days from the receipt of the objections prepared by the applicants of annual transmission capacity in line with (c) the TSO prepares and sends to the applicants its reply regarding the notified objections;

e) the daily capacity booked for a gas year is made available to the NU at a constant level on each day of the relevant gas year;

f) the capacity remaining available after the contracting of the annual product is offered as quarterly products;

g) as of the first Monday of August, November, February and May, within 6 working days, the transmission capacity applicants at the NTS entry/exit points send their applications for quarterly capacity booking for each quarter of the gas year 1 October of the current calendar year – 1 October of the following calendar year: the quarter 1 October of the current calendar year - 1 January of the following calendar year, the quarter 1 January - 1 April of the following calendar year, the quarter 1 April - 1 July of the following calendar year, and quarter 1 July - 1 October of the following calendar year;

h) as of the first working day from the expiry of the deadline under (g), within 4 working days, the TSO analyses the quarterly transmission capacity booking requests sent by the applicants and notifies them on the approval or rejection of the quarterly transmission capacity booking requests, as appropriate, by a notification prepared according to the model provided in Annex 4;

i) within two working days from the receipt of the TSO's notification regarding the rejection of the quarterly transmission capacity booking requests, the applicants for quarterly transmission capacity may send to the TSO, in writing, the possible objections;

j) within two working days from the receipt of the objections prepared by the applicants for quarterly transmission capacity in line with the provisions of letter i) the TSO shall prepare and send to the applicants its reply to the objections notified;

k) the daily capacity booked for a quarter is made available to the NU at a constant level on each day of the relevant quarter;

l) as of the first working day from the expiry of the deadline under j), within 4 working days, the TSO shall send to the applicants whose requests for annual and quarterly transmission capacity booking requests were approved the gas transmission contracts in two counterparts for signature;

m) within two working days from the receipt of the gas transmission contracts, the applicants shall activate the financial guarantee, as appropriate, in line with the conditions at Art. 27 (A) and send to the TSO the signed copies of the transmission contracts for signature, if they agree to them, and their objections regarding the content of the transmission contract, within the limit of the provisions of the gas transmission contract under Annex 1 and Annex 1^2. If there are objections regarding the content of the contract, the TSO and the transmission capacity applicants shall resolve them jointly and ensure that the transmission contract is concluded before the date of the beginning of the gas year 1 October of the current calendar year – 1 October of the following calendar year;

n) the capacity remaining available after the contracting of the quarterly product is offered as monthly products.

(3) Starting with the 3rd Monday of month M, within 2 working days, the NTS entry/exit points transmission capacity applicants shall send the monthly transmission capacity booking requests for a calendar month or multiple calendar months remaining until the end of the gas year. The monthly booked capacity shall be made available to the NU on a constant level each day of the relevant month.

(3[1]) Until 1 April 2019 included, daily transmission capacity booking requests for a gas day or multiple gas days remaining until the end of the gas year shall be sent by the capacity applicants having a capacity contract with the TSO at least 2 working days before the requested date.

(3[2]) After 1 April 2019, starting from 5:30 p.m. of day D-1, within 1 hour, the NTS entry/exit points transmission capacity applicants shall send the daily transmission capacity booking requests for a gas day or multiple gas days remaining until the end of the gas year, for a NU having a transmission contract. The TSO shall send the NU an electronic confirmation notice on the booked capacity within 30 minutes from the end of the booking period. The notification is part of the NTS entry points transmission contract or of the NTS exit points transmission contract. The daily capacity booked shall be made available to the NU on a constant level each hour of the relevant day.

(3[3]) For the capacity applicants who do not have a capacity contract with the TSO, the daily transmission booking requests for a gas day or multiple gas days remaining until the end of the gas year shall be sent at least 3 working days before the date requested for the entry into force of the transmission contract.

(3[4]) Starting with 1 October 2019, every hour from 04:00 a.m. of gas day D-1 and up to 03:00 a.m. of gas day D, the NU having a transmission contract may request within-day transmission capacity for the remaining hours of the relevant gas day. The request period is of 30 minutes. The maximum period during which the within-day capacity product may be booked is of 23 hours. The minimum period for which the within-day capacity product is available to the NU is of 1 hour, the last hour of gas day D respectively. The TSO shall send the NU within 15 minutes from the end of the booking period an electronic confirmation notice of the booked capacity. The notification is part of the NTS entry points transmission contract/NTS exit points transmission contract.

(4) the TSO shall publish on its own website the periods under (2) (a), (b), (e), (f) and (i) for the annual and quarterly transmission capacity booking for gas year 1 October of the current calendar year – 1 October of the following calendar year until 15 July of each current calendar year the latest.

(3[5]) By way of derogation from the provisions of paragraph (3), the transmission capacity applicants in the entry/exit points in/out of the NTS shall send on 24 December 2018 the transmission capacity booking requests for January 2019 or multiple calendar months remained until the end of the gas year as of January 2019.

Art 36[1] – (1) If during a gas year new physical NTS entry/exit points are commissioned, other than the new interconnection points of the NTS with the gas transmission systems in the EU member states neighbouring Romania and these points were not the subject of the transmission capacity booking procedure for such gas year provided at article 36, the applicants for transmission capacity may send to the TSO annual transmission capacity booking requests for the new NTS entry/exit points at least 15 working days prior to the date requested for the entry into force of the transmission contract. The duration of the transmission contract concluded in this situation will be included between the date of the execution of the transmission contract and including the last day of such gas year.

(2) After the approval of the capacity booking request sent to the TSO in line with the provisions of par (1) any other transmission capacity booking request sent by the same applicant for transmission capacity will be analysed by the transmission system operator in line with the provisions of art 32 or of art 36 par (3), as appropriate.

Art. 36[2] – (1) The capacity booking requests are mandatorily sent directly on the online transmission capacity booking platform operated by the TSO.

(2) In order to obtain access to the transmission capacity booking platform, the applicants for transmission capacity at the NTS entry/exit points not qualifying as NU at the date of the beginning of the transmission capacity booking procedure shall send to the TSO a request for access to the platform. The TSO shall give access to the applicant to this platform, according to the Regulation on access published on its website.

(3) If the online platform for transmission capacity booking is temporarily non-functional from technical reasons, the capacity booking requests will be sent by e-mail, in the XML/TXT format provided by the TSO, with extended electronic signature or, if the e-mail communication service is not available, by written letter sent by fax, by means of the forms included in Annex 3.

Art. 36[3] – (1) By derogation from the provisions of Art. 36 (2) transmission capacity booking for gas year 2018-2019 at other NTS entry/exit points, other than those stipulated at Art. 36 (1) shall be carried out as follows:

a) at each NTS virtual entry point from the production blocks, the transmission capacity may be booked only by the gas producer operating the NTS physical entry points from the production blocks constituting the relevant NTS virtual entry point from production blocks;

b) at the NTS virtual exit points to gas distribution systems. The NTS physical exit points operated by the same distribution operator shall be grouped into a single virtual exit point;

c) at the virtual exit points to gas distribution systems constituted according to (b) transmission capacity shall be booked exclusively by each client of the distribution operator separately, by client of the distribution operator understanding the economic operator/final client having a distribution contract with the relevant distribution operator, in force on 1 October 2018;

d) the clients of the distribution operators, as defined at (c) shall book transmission capacity at the NTS virtual exit points to gas distribution systems to which the end clients in their own portfolio (in the case of gas suppliers) and/or themselves (in the case of end clients having a gas distribution contract with the relevant distribution operator) are connected;

e) between 3-7 September 2018, transmission capacity applicants at the NTS entry/exit points shall submit annual transmission capacity booking requests for gas year 1 October 2018 - 1 October, prepared in accordance with (a)-(d);

f) between 10 and 11 September 2018, the TSO shall consider the annual transmission capacity booking requests submitted by the applicants and notify them of the approval or rejection of the annual transmission capacity booking request, as appropriate, by a notification prepared in accordance with Annex 4;

g) if the TSO rejects the annual transmission capacity booking request, the annual transmission capacity applicants may submit written objections to the TSO by 13 September 2018 at the latest;

h) the TSO shall prepare and send a reasoned reply to annual transmission capacity applicants who have submitted objections in accordance with (g) until the end of the day of 14 September 2018;

i) between 17 and 19 September 2018, the NTS entry/exit points transmission capacity applicants shall send quarterly transmission capacity booking requests for each for each of the quarters of gas year 1 October 2018 - 1 October 2019: the 1 October 2018 – 1 January 2019 quarter, the 1 January - 1 April 2019 quarter, the 1 April - 1 July 2019 quarter, and the 1 July - 1 October 2019 quarter; quarterly capacity booking requests shall be prepared according to a)-d);

j) between 20-21 September 2018, the TSO shall consider the quarterly transmission capacity booking requests submitted by the applicants and notify them of the approval or rejection of the quarterly transmission capacity booking request, as the case may be, by a notification prepared in accordance with Annex 4;

k) if the TSO rejects the quarterly transmission capacity booking request/requests, the quarterly transmission capacity applicants may submit written objections to the TSO by 24 September 2018 at the latest;

l) the TSO shall prepare and send a reasoned reply to quarterly transmission capacity applicants who have submitted objections in accordance with (k) until the end of the day of 25 September 2018;

m) on 26 September 2018 the TSO shall send the gas transmission contracts signed by the legal representative of the TSO in two counterparts for signature to the applicants whose annual and quarterly capacity booking applications were approved;

n) within two working days from the receipt of the gas transmission contracts sent by the TSO in accordance with (m), the applicants shall activate the financial guarantee, as appropriate, according to the transmission contracts , and send the signed counterparties to the TSO.

o) During the period 19 December 2018 - 20 December 2018 NU may send quarterly transmission capacity booking requests for quarter 1 January 2019 – 1 April 2019; quarterly gas transmission capacity booking requests related to quarter 1 April 2019 – 1 July 2019 and quarter 1 July 2019 – 1 October 2019 may be sent 15 business days before the date of commencement of each quarter.

(2) For gas year 2018-2019, the deadline at Art. 36 (3) is 25 September 2018.

Art. 37 - (1) For the application of the Network Code, the communication between the TSO, the NU, and the neighbouring system operators regarding information on requests for capacity, the transfer of the capacity right, the complete transfer of the rights and obligations under the NTS entry points transmission contract/NTS exit points transmission contract, the transmission schedule, the nominations/re-nominations, the VTP notifications of the completed transactions, the metered gas quantities, the initial/final allocations, the initial/final imbalances, the background information about the NTS balancing position and TSO messages to notify the NU of nomination acceptance, nomination adjustment, nomination confirmation, forecasted imbalances shall carried out through a secured online IT platform.

(2) The technical conditions of use of the IT platform shall be published by the TSO on its own website. If from technical reasons related to the unavailability of the TSO's platform, the TSO/NU is unable to send the above information directly to the IT platform, such information shall be send by the following alternative communication services:

a) email, XML format supplied by the TSO;

b) fax, using the forms provided in the Network Code, if the alternative communication service at (a) is not available.

(3) The annual average gross calorific power considered in energy units (MWh/day) for capacity booking purposes shall be determined as weighted average against the gas volumes of the gross calorific powers determined during the previous calendar year for each relevant point.

(4) The values of the annual average gross calorific powers determined according to paragraph (3) and published on the TSO webpage on 31 March shall be valid during the entire period of the following gas year.

Art. 38 Abrogated

Art. 39 Abrogated

Art. 40 - The TSO shall keep records of the capacity approvals and refusals for each NU, for the purpose of notifying the CA at least once a year.

Art. 41 - TSO shall be entitled to refuse the requests for capacity which fail to meet the terms specified under Art. 36.

Art. 42 Abrogated

Art. 43 - (1) If the requested capacity is not approved, the notification shall clearly state the grounds for the refusal.

(2) The following may constitute grounds for refusal:

a) the circumstances under Art. 149 (1) of Law 123/2012, as further amended and supplemented;

b) the NU/applicant fails to meet the requirements under Art. 27;

c) the NU has outstanding debts resulted from the execution of previous transmission contracts and/or balancing and VTP access contracts.

The carrying out of the incremental capacity processes

Art. 43[1]. – (1) The incremental capacity processes at the interconnection points of the NTS with the gas transmission systems in the EU Member States neighbouring Romania initiated after 1 August 2017 shall be carried out in accordance with the provisions of Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code for capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No. 984/2013.

(2) The development of incremental capacity processes at the entry/exit points in/out of the NTS, other than those stipulated in par (1) shall be carried out in accordance with the provisions of the specific procedures developed by the TSO and endorsed by the CA, in accordance with the following principles:

a) the TSO has the obligation to initiate an incremental capacity process upon the receipt of a request for the incremental capacity envisaged to be created through projects included in the NTS investment and development plans for the next 10 years;

b) the incremental capacity requests made by the potential network users may be sent any time during the gas year;
c) The incremental capacity requests sent by a potential network user may be conditional on the allocation of a minimum capacity for a certain number of years and/or a possible final investment decision in relation to the project that has determined the transmission of the application;
d) the TSO treats requests for incremental capacity equally, regardless of whether they are conditional or not;
e) The incremental capacity is allocated to each potential network user at the required level if the total capacity requested by all potential network users for each year of the period in which incremental capacity is offered is less than or equal to the incremental capacity offered within the incremental capacity process;
f) If, for at least one year of the period for which the incremental capacity is offered, the total capacity requested by all potential network users exceeds the capacity offered within the incremental capacity process, it is allocated to the potential network users in the decreasing order of the value of the binding commitments for capacity contracting expressed by each of them, at the required level or the required minimum capacity level, as the case may be, within the capacity level provided in the incremental capacity process;
g) The incremental capacity process is successfully completed if the allocated incremental capacity level is at least equal to the minimum capacity threshold;
h) the incremental capacity allocated to a potential network user within an incremental capacity process is booked by them by signing a transmission contract with the TSO in accordance with the Framework gas transmission Agreement concluded following the incremental capacity booking procedure in the National Gas Transmission System, provided in Annex no. 1[1].

Art. 44 Abrogated

CHAPTER IV – PROVISION OF TRANSMISSION SERVICES

Art. 45 - (1) In order to implement the transmission contract, the NU shall notify TSO of the NTS gas inputs/outputs, planned at all entry and exit points where the NU has booked capacity; the notification shall be in the form of the transmission schedule and of the nominations/re-nominations, based on the procedures and terms set forth in this chapter.

(2) Upon the preparation of the transmission schedule and of the nominations/re-nominations, the NUs shall take into consideration the planned works decreasing or interrupting the NTS capacity.

(3) The TSO shall publish on its webpage, the periods for the planned maintenance works, as follows:

a) no later than the 1st of March, for the next gas year;

b) no later than the 1st of December, the potential modifications for the period January 1st – June 30th of the current gas year;

(4) The TSO shall notify the NU with regard to the interruption period and to the date estimated for resuming the transmission services, with at least 3 working days before the actual date of the works mentioned by paragraph (3).

(5) The network users shall be notified of any possible modification of the planed works schedule, with at least 30 days before the works execution date.

(6) If the planned works schedule, notified based on paragraph (3), is changed, the NU shall be entitled to amend the transmission schedule and the nominations/re-nominations, by mutual agreement with TSO.

Transmission Schedule

Art. 46 - (1) The transmission schedule shall be prepared by the NU according to the model provided by Annex no 5, the following being specified for each month:

a) the gas quantity expressed in energy units for each NTS entry point where the NU has booked capacity, split on counterparts;

b) the gas quantity expressed in energy units for each NTS exit point where the NU has booked capacity, split on counterparts.

(2) The NU shall upload the transmission schedule into the IT platform in accordance with the procedure set forth in Art. 27 letter (B).

(3) If, due technical reasons of IT platform unavailability, NU is unable to upload the documents as specified by paragraph (1), the transmission schedule shall be emailed in the XML format provided by the TSO.

(4) The annual average gross calorific power considered in energy units (MWh/day) for the preparation of the transmission schedule shall be determined as weighted average against the gas volumes of the gross calorific powers determined during the previous calendar year for each relevant point.

(5) The values of the annual average gross calorific powers as determined under paragraph (4) shall be made available on the TSO webpage on 31 March.

(6) The operational parameters of the physical NTS entry and/or exit points (minimum pressure, maximum pressure, capacity), as well as the parties' rights and obligations to meet such parameters shall be the subject of some bilateral arrangements concluded by the TSO with the producers, the storage system operators and the distribution systems operators, by 15 April for the next gas year. The DC shall conclude bilateral agreements, either directly or by their suppliers, as appropriate.

(7) The operational parameters of the physical NTS entry and/or exit points, set in the bilateral arrangements, shall be published on the TSO webpage, according to the provisions of Art. 20, and shall represent the basis of the transmission contract conclusion.

Art. 47 - The transmission schedule shall be attached to the transmission contract. The NUs may amend the transmission schedule for the following month or for the remaining gas year, as soon as the gas year has started and with at least 5 days before the beginning of the delivery month, by 2 p.m.

Art. 48 - (1) The transmission schedule may be amended by written notification of the NU. The notification shall be drawn up according to the model provided by Annex no 6 and uploaded into the IT platform.

(2)If, due technical reasons of IT platform unavailability, NU is unable to upload the documents as specified by paragraph (1), the notification shall be emailed in the XML format provided by the TSO.

The nomination procedure

Art. 49 – (1) The nomination represents a statement undertaken by the NU, notified to the TSO, in which the natural gas quantity to be physically introduced/taken over by the NU into/out of the NTS during a gas day, is specified and which has to be confirmed by the TSO in order to be materialized.

(2) The nomination expressed in energy units shall be submitted by the NU in the IT platform of the TSO, according to Art. 37.

(3) Abrogated

(4) Abrogated

(5) Abrogated

(6) Abrogated.

(7) Abrogated.

(8) Abrogated.

(9) Within the nomination procedure, the TSO shall consider the last nomination sent by the NU, in compliance with the conditions under (2) and which was performed until the deadline provided in Art. 49[1] (1), Art. 49[2] (3), Art. 49[3] and Art. 49[4] (1), as applicable.

(10) By way of derogation from the provisions of paragraph (1) – (9), the nomination principles for the cross-border interconnection points may be different, in line with the agreements set between the operators of the interconnected gas transmission systems in line with Commission Regulation (EU) no 312/2014 of 26 march 2014 for the establishment of a network code for balancing gas transmission networks.

Nomination at entry points from production blocks

Art. 49[1] – (1) By day D-1 3:00 p. m. the NU shall submit nominations regarding the gas quantity planned to be introduced into the NTS.

(2) For day D the NU shall submit a nomination at its virtual point, by physical entry points from the production blocks.

(3) After the receipt of the nomination the TSO shall deliver a confirmation message regarding the registration of the nomination on the IT platform of the TSO.

(4) On day D-1, between 3.00 p. m. and 3.30 p.m., for the confirmation of the day D nomination submitted by the NU, the TSO shall verify the falling of the quantities nominated at each NTS virtual entry point within the capacity booked by the NU at the relevant points and, if applicable, shall supplement the capacity booked by the NU, in accordance with Art. 51.

Nomination at the NTS/underground storage facilities interface entry/exit points

Art. 49² – (1) Each SSO shall send the TSO the updated list of the NU having ongoing storage contracts, and the TSO shall send the SSO the updated list of the NU who booked transmission capacity at the virtual point at the interface between the NTS and the underground storage facilities operated by the relevant SSO.

(2) The SSO and the TSO shall make available the list at (1) for their own clients on request.

(3) Until day D-1 3:00 p. m.:

a) the NU shall submit the nominations by entry/exit points at the interface between the NTS and the underground storage facilities for day D, indicating the pair partners clients of the SSO;

b) each SSO shall send to the TSO the nominations of its clients for day D, by each pair of clients of the SSO-NU.

(4) On day D-1 between 3:00 p.m. and 3:30 p.m. the TSO shall carry out the following activities successively:

a) for each virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D and for each NU – client of the SSO pair, the TSO compares the value communicated by the NU in its nomination for the relevant client of the SSO with the value communicated by the SSO as being the nomination of its client who indicated such NU as its pair;

b) adjusts the value communicated by the NU in its nomination for the NU client of the SSO pair if the values compared in accordance with (a) are not equal, applying the lesser rule;

c) totals at NU level the values resulting from the application of the provisions of (a) and (b) for each virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D and for each NU-SSO client, communicated by the NU in its nomination;

d) accepts as nomination for day D the value calculated in accordance with (c) if it falls within the transmission capacity booked by the NU at the relevant virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D;

e) if the value calculated in accordance with (c) is larger than the transmission capacity booked by a NU at a virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D, the TSO calculates for each of such NU the difference between the transmission capacity necessary for circulating the gas quantity corresponding to the value determined in accordance with (c) and the transmission capacity booked by the relevant NU;

f) compares the level of the available transmission capacity at each virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D with the sum of the values calculated in accordance with (e) for all NU whose nominations matched and aggregated according to (a) - (c) did not fall within the transmission capacities booked by them;

g) accepts as nomination for day D the value calculated in accordance with (c) for each NU whose nominations matched and aggregated according to (a) - (c) did not fall within the transmission capacities booked by them, if the capacity available at each virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D is larger than the total value calculated according to (e);

h) accepts as nomination for day D the value related to the quantity of gas which can be circulated through the relevant virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D by using completely the capacity booked by the relevant NU at the relevant point, plus a value calculated by applying the pro-rata principle to the capacity available for day D at such point, based on the share of the value calculated according to (e) for each NU whose nominations matched and aggregated according to (a)-(c) did not fall within the transmission capacities booked by them in the amount of the values calculated according to (e) for all NU in the same situation, if the capacity available at each virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D is less than the sum of the values calculated in accordance with (e);

i) communicates the accepted nomination to the NU;

j) the communication at (i) includes information on the breakdown of the accepted nominated quantity by each NU-SSO client pair, if the nomination was accepted by the TSO in accordance with (d) and (g);

k) the communication referred to at (i) includes the TSO`s request to the UR to break down the accepted nomination quantity by each NU – SSO client pair if the nomination was accepted by the TSO according to (h), the NU having the obligation to send the TSO the requested information within no more than 1 hour from the receipt of the notification regarding the accepted nomination. If the NU does not meet this obligation, the nomination accepted by the TSO at the relevant virtual entry/exit point at the interface between the NTS and the underground storage facilities for day D, for such NU shall be equal to zero. The TSO informs the NU of the reduction to zero of the accepted nomination value between 4:40 p.m. and 4:45 p.m.;

l) By 5:00 p.m. of day D-1, the TSO shall communicate the SSO the nomination accepted for each NU-SSO client pair for gas day D.

(5) The matched and confirmed nomination shall become a delivery/takeover obligation at the NTS/underground storage facilities interface points.

(6) In the case of the submission of a within-day nomination, the TSO shall process the hourly values for the remaining hours until the end of the gas day.

(7) If for the day D there are nominations both for extraction and for injection the TSO and the SSO set the direction of the gas flow by the difference between extraction and injection nominations.

The extracted/injected quantities in written/virtual mode by the calculation of the differences in the physical extraction/injection nominations will follow the same matching and confirmation procedure.

Nomination at exit points to DS

Art. 49[3] – (1) Between D-90 and D-1, 3:00 p.m., the NU shall submit nominations for day D at the virtual exit points to DS, on the TSO IT platform.

(2) On day D-1, between 3.00 p.m. and 3.30 p.m., for the confirmation of the day D nomination submitted by the NU, the TSO shall verify the falling of the quantities nominated at each NTS entry and exit point within the capacity booked by the NU at the relevant points and, if applicable, shall supplement the capacity booked by the NU, in accordance with Art. 51.

(3) The TSO shall communicate to the NU and DSO the level of the confirmed nominations.

Nomination at exit points to DC

Art. 49[4] – (1) Between D-90 and D-1, 3:00 p.m., the NU shall submit nominations for day D at the exit points to DC, on the TSO IT platform.

(2) On day D-1, between 3.00 p.m. and 3.30 p.m., for the confirmation of the day D nomination submitted by the NU, the TSO shall verify the falling of the quantities nominated at each NTS entry and exit point within the capacity booked by the NU at the relevant points and, if applicable, shall supplement the capacity booked by the NU, in accordance with Art. 51.

(3) The TSO shall notify the NU on the confirmed nominations.

Art. 50 Abrogated

Art. 51 - (1) If the gas quantity nominated by a NU at a NTS entry/exit point exceeds the capacity booked by that NU at that point, the TSO check whether the sum of the gas quantities nominated by all the NU at the relevant NTS entry/exit point complies with its technical capacity and:

a) supplements the capacity booked by the relevant NU at the relevant NTS entry/exit point up to the level of the nominated quantity, if the sum of the gas quantities nominated by all NU at the relevant NTS entry/exit point complies with its technical capacity.

b) supplements the capacity booked by the relevant NU in that entry/exit point up to the level of the quantity resulted after the application of the pro-rata principle with the capacities booked related to the gas quantities of all NU whose nominations exceed the capacities booked by them at that point.

(2) The nominations/re-nominations sent by a NU exceeding the capacity booked are registered by the TSO only if they fall within the available technical capacity.

(3) The supplementing under the conditions provided for in paragraph (1) of the capacities booked is mandatory for the NU and the TSO and shall be granted at the end of each nomination/re-nomination cycle for day D based on the confirmed nomination/renomination. The NU may not waive the relevant supplementary daily capacity which exceeds the capacity booked by the NU at a NTS virtual entry/exit point.

(4) For the supplementary capacity resulting under the conditions provided in paragraph (1) the capacity booking tariff is levied for the firm, daily transmission service, in force the date the nomination is approved.

(5) The provisions at (1) and (2) shall not be applied for the cross-border interconnection points with the EU Member States.

Art.52. – (1) The NU shall notify at the VTP the transactions performed for individual balancing of its own portfolio and for commercial purpose.

(2) Once confirmed by the TSO, the transactions notified by the NU and/or the centralized market operators to the VTP are deemed to be firm commitments of the latter, and shall be considered by the TSO within the nomination, renomination, allocation and calculation of the final daily imbalances recorded by the relevant NU.

(3) The transactions notified at the VTP are considered by the TSO according to the relation:

$$NOM(I) + T(C) = NOM(E) + T(V)$$

where:

- NOM(I) – represents the confirmed nomination of a NU by entry points into the NTS;
- NOM(E) – represents the confirmed nomination of a NU by exit points out of the NTS;
- T(C) – is the notification at the VTP of a purchasing transaction performed by a NU;
- T(V) – is the notification at the VTP of a selling transaction performed by a NU;

(4) Abrogated

(5) Abrogated

(5[1]) The responsibility to perform transactions notified in the VTP and confirmed by the TSO lies only with the two NUs involved in such transaction.

(6) The rejection/amendment by the TSO of the nominations and renominations in the interconnection point with adjacent transmission systems and in other points than the interconnection points, is performed in line with the provisions of regulation (EU) no 312/2014 of the Commission of 26 March 2014 for the establishment of a network code for the balancing of the gas transmission network.

Art.53. Abrogated

Art.54. Abrogated

Art.55. – Between 4.30 p.m. and 5.30 p.m., the TSO shall analyse the information sent by the NU and:

a) If subsequent to the transactions notified at the VTP, the sum of the gas quantities nominated by the NU in each NTS entry point where they booked capacity, plus the quantity traded after the conclusion of transactions at the VTP, is equal to the sum of the gas quantities nominated at every NTS exit point where the NU booked capacity, plus the quantity sold after the conclusion of transactions at the VTP, the TSO shall communicate to the NU the level and the structure of the approved nominations for day D related to the individual portfolio, this notification being the TSO`s agreement regarding the NU gas quantities for which it will provide the transmission service on day D;

b) If after the transactions notified at the VTP, the sum of the gas quantities nominated by the NU at each NTS entry point where they booked capacity, plus the quantity traded after the conclusion of transactions at the VT,P is equal to the sum of the gas quantities nominated at each NTS exit point where the NU booked capacity, plus the quantity sold after the conclusion of transactions at the VTP, is different form the sum of the gas quantities nominated at each NTS exit point where the NU booked capacity, plus the quantity sold after the conclusion of transactions at the VTP, the TSO shall approve the nomination of the NU by adjusting the highest value to the level of the lowest value, according to Art. 52 (6) and shall notify the NU on the level and the structure of the approved nominations for day D related to the individual portfolios;

c) If the NU do not send trade notifications, the TSO shall approve the nomination of the NU by adjusting the higher value to the lowest value, according to Art.. 52 (6) and shall notify the NU on the level and the structure of the nominations related to the individual portfolios approved for day D.

The re-nomination procedure

Art. 56 - (1) The re-nomination is a statement undertaken by the NU, notified to the TSO, by which the NU modifies the confirmed nomination and which, in order to be applied, must be confirmed by the TSO.

(2) According to the re-nomination procedure, the TSO shall consider the last nomination/re-nomination submitted by the NU for gas day D, according to (3).

(3) A re-nomination cycle starts every hour of the 6:00 p.m. of day D-1 - 04:00 a.m. of day D time interval. Re-nominations are made for the remaining hours until the end of the gas days and are considered after 2 hours from the end of the hourly re-nomination cycle.

(4) For all re-nomination cycles, the TSO shall accept only values for the remaining hours, including for the re-nominations performed during the gas day.

(5) A confirmed re-nomination becomes a confirmed nomination.

Art. 57 Abrogated

Re-nomination at entry points from production blocks

Art. 57[1] – (1) A re-nomination cycle starts every hour of the 6:00 p.m. of day D-1 - 04:00 a.m. of day D time interval. Re-nominations are made for the remaining hours until the end of the gas days and are considered after 2 hours from the end of the hourly re-nomination cycle.

(2) The NU may change its nomination by sending a re-nomination to the TSO.

(3) For all re-nomination cycles, the TSO shall accept only values for the remaining hours, including for the re-nominations performed during the gas day.

(4) Upon receipt of the re-nomination, the TSO shall send a confirmation message regarding its registration on the TSO IT platform.

(5) For NTS dispatching purposes, on day D-1 the producers shall submit to the TSO`s dispatching centre the production forecast for day D by physical entry points from the production blocks. These data shall be matched with the nomination made for day D at the virtual point of the relevant producer.

(6) On day D the producers shall make available to the TSO`s dispatching centre the real time hourly values for the SCADA equipped stations, and an estimate of the updated hourly values .

Re-nomination at entry/exit points at the interface between the NTS and the underground storage facilities

Art. 57[2] – (1) A re-nomination cycle starts every hour of the 6:00 p.m. of day D-1 - 04:00 a.m. of day D time interval.

(2) Re-nominations are made for the remaining hours until the end of the gas days, will be communicated to the TSO compliant with the content requirements under Art. 49[2] (3), and will be considered after 2 hours from the end of the hourly re-nomination cycle.

(3) Within 30 minutes from the end of each re-nomination cycle, the TSO shall successively carry out the activities under Art. 49[2] (4) for processing the re-nominations received.

(4) For all re-nomination cycles, the TSO shall accept only values for the remaining hours, including for the re-nominations performed during the gas day.

Re-nomination at exit points to DS

Art. 57[3] – (1) A re-nomination cycle starts every hour of the 6:00 p.m.- 04:00 a.m. of day D time interval.

(2) Re-nominations are made for the remaining hours until the end of the gas days and are considered after 2 hours from the end of the hourly re-nomination cycle.

For all re-nomination cycles, the TSO shall accept only values for the remaining hours, including for the re-nominations performed during the gas day. For the latter, only the values for the remaining hours will be processed.

(3) Upon receipt of the re-nomination, the TSO shall send a confirmation message regarding its registration on the TSO IT platform.

(3[1]) The TSO shall send to the DSO the last confirmed re-nomination for the NUs connected to the relevant DS

(4) For the purpose of providing data on the NU inputs and offtakes during the day, the TSO sends the DSO connected to the NTS the quantities measured at 11:00 a.m. and at 7:00 p.m. at the physical points at the NTS/DS interface on day D, at 11:30 a.m. and at 7:30 p.m.. The data is sent in energy units and the latest gross calorific value on the TSO IT platform is used at its calculation (D or D-1).

(5) Within 1 hour from the receiving of the data at (4), the DSO connected to the NTS sends the TSO the breaking down of these quantities by NU, using the following information:

a) The quantities metered regarding the end clients where the metering is made on a daily basis, aggregated for each NU;

b) Quantities the DSO estimated to be consumed by the end clients under the portfolio of each DSO NU client where the metering is non-within day. The estimation is made for each NU separately, based on the following elements:

- consumption profiles specific to each end client category;
- the portfolio structure of each NU`s end client.

(6) If a DS is connected to another DS connected to the NTS, the downstream DSO sends the DSO connected to the NTS the same type of information, according to (5).

(7) Twice a day, at 1:00 p.m. and 9: p.m., the TSO make the data at (5) available to the NU through the IT platform.

Re-nomination at the exit points to DC

Art. 57[4] – (1) A re-nomination cycle starts every hour of the 6:00 p.m of day D-1 - 04:00 a.m. of day D time interval.

(2) Re-nominations are made for the remaining hours until the end of the gas days and are considered after 2 hours from the end of the hourly re-nomination cycle.

(3) For all re-nomination cycles, the TSO shall accept only values for the remaining hours, including for the re-nominations performed during the gas day.

(4) If several NUs deliver gas through the same exit point to a DC, for the purpose of providing information regarding the NU`s quantities entered and exiting during the day, the TSO allocates the quantities measured at 11:00 a.m. and 7:00 p.m. at the physical points at the NTS/DC interface, by NU, based on the information received from the

DC. The TSO sends the DC in this respect the quantities measured at 11:00 a.m. and at 07:00 p.m. at the physical points at the NTS/DS interface on day D, at 11:30 a.m. and at 07:30 p.m.. The data is sent in energy units and the latest gross calorific value on the IT platform is used at its calculation (D or D-1). Within 1 hour from the receiving of the data the DC sends the TSO the breaking down of these quantities by NU. If the information is lacking, the TSO allocates the quantity measured directly proportional with the confirmed nomination. Within 30 minutes from the receiving of the data, the TSO makes it available to the NU through the IT platform.

Art.58. Abrogated

Art. 59 Abrogated

Other provisions related to the nomination/re-nomination procedures

Art.60. – The level and the structure of the confirmed nominations/re-nominations shall be sent by the TSO to the NU, according to Art. 37, as a document entitled `Confirmation, nomination/re-nomination` drawn up according to the template provided for in Annex 7^1 becoming mandatory for the NU.

Art. 61 – The TSO will draw up and permanently update the register where the approvals/rejections of the nominations/re-nominations are recorded and will submit it to the Competent Authority every time it is requested.

Art. 62 - (1) The NU shall accept a provisional decrease of the confirmed nomination/re-nomination if:

a) The TSO does not accept the gas to be injected in the NTS by the NU, due to the fact that it fails to meet the minimum quality requirements according to the applicable laws.
b) The SSO, DSO or the DC do not accept gas to be delivered by the NU, due to the fact that it fails to meet the minimum quality requirements provided for by the applicable laws.

(2) Under paragraph (1) (a), the TSO shall not be bound to pay the charges for not providing the capacity booked as specified at Art. 101.

(3) Under paragraph (1) (b), the NU shall be entitled to request and receive the amounts related to the prejudice incurred according to the contract.

Gas Transfer Facility

Art. 63 Abrogated

Art. 64 Abrogated

Allocation Procedure

Art.65. – (1) the allocation is the award by the TSO for each NU of the gas quantities expressed in energy units, in the NTS entry/exit points , according to the provisions of the network Code.

(2) the Allocation Procedure is performed daily and monthly.

Daily Allocation

Art.66. – (1) the TSO performs the daily allocation in the day D+1 for the day D, for each NU, for the purpose of the calculation of the imbalance related to day D.

(2) The TSO performs the daily allocation using the data related to the gas quantities metered at every NTS entry/exit point, the data from the DSOs and the nominations/re-nominations confirmed for the gas day D.

(3) The TSO displays in the day D+1 by 2:30, for each NU, the data related to the allocation and the level of their daily imbalance for day D, according to the provisions of art 37 par (1) and (2).

(4) The data related to allocation for each NU is split, mandatorily, per each virtual NTS entry/exit point where gas quantities were allocated to that NU, as follows:

a) Quantities directly allocated to the NU;

b) Quantities allocated to the NU through their partners in that entry/exit point in/out of the NTS, split by each NU partner respectively by each NU client of the SSO.

Allocation at NTS entry points of the gas quantities delivered from production fields

Art.67. – (1) For the performance of the allocation at the virtual points of NTS entry from production fields, each producer/third operator submits to the TSO, by 10:00 a.m. of the gas day D+1 the following information related to the deliveries made in the gas day D:

a) the volumes metered per each physical point of NTS entry from the relevant producer's production fields;

b) the gross calorific value related to the gas delivered at each physical point of NTS entry from the relevant producer's production fields.

(2) During 10.00 – 10:30 a.m. of the gas day D+1, the TSO conducts the following processes:

a) calculates the energy amount for gas day D related to each virtual point of NTS entry, based on the information provided for at paragraph (1);

b) allocated the amounts calculated under paragraph a) to the producers as follows:

i. in case of points where a single NU producer delivers gas, the metered amount is allocated to it;

ii. in case of points where multiple NU producers deliver gas, the metered amount is allocated to each producer based on the information received from the producer/third operator. If the producer / third operator fail to submit such information, the TSO allocates the metered amount pro-rata with the nomination.

c) TSO checks if the difference between the sum of the metered amounts and the nomination related to the relevant virtual point added to the current OBA account value does not exceed the OBA limit agreed under the interconnection agreement;

d) If the OBA limit is not exceeded, the TSO shall allocate amounts pursuant to the nomination. The difference between the nominated and the metered amounts is accounted for in the OBA.

e) If the OBA limit is exceeded, the OBA based procedure is suspended and the TSO allocates as measured. The OBA based allocation procedure will be resumed starting with the gas day when the OBA will be within the limits;

f) The TSO posts the OBA limits and the OBA accounted for amount to be permanently updated on its webpage.

(3) Abrogated

(4) By 10.30 a.m., on day D+1, TSOs shall inform the producers on the allocated gas amount related to day D.

(5) Abrogated

Allocation at the entry/exit points at the interface between the NTS and the underground storage facilities

Art.68. – (1) In view of the allocation at the entry/exit points at the interface between the NTS and the underground storage facilities, each SSO submits the following information regarding the deliveries made on gas day D to the TSO, by 10.00 a.m. on day D+1:

a) The volumes metered at each physical entry/exit point at the interface between the NTS and the underground storage facilities operated by such SSO;

b) The gross calorific value of the gas delivered at each physical entry/exit point at the interface between the NTS and the underground storage facilities operated by such SSO.

(2) In the time frame 10:00 – 10:30 of the gas day D+1, the TSO calculates the amount of energy related to each virtual entry/exit point at the interface between the NTS and the underground storage facilities, based on the information provided for in par (1).

(3) Abrogated

(4) The TSO checks if the difference between the sum of the metered amounts and the nomination related to the relevant virtual point added to the current value of the OBA account does not exceed the OBA limit agreed under the interconnection agreement and that the amounts are allocated as follows:

a) If the OBA limit is not exceeded –the TSO shall make the allocation according to the nomination. The difference between nomination and metering is accounted for in the OBA.

b) If the OBA limit is exceeded, the parties shall mutually agree on the extension of the limit for a period of time as short as possible, provided that such extension does not affect the NTS operation under safe conditions and the allocations are equal to the confirmed NU nominations. The subsequent settlement of the differences between the allocated quantity and the metered quantity will be performed in line with the interconnection agreement concluded between the TSO and the SSO.

(5) The TSO posts the OBA limit and the OBA accounted for amount to be permanently updated on its website.

Allocation in the cross border interconnection points

Art.69. – In view of the performance of the allocation in the entry points in the NTS Isaccea (UA-RO) and Mediesu Aurit (UA-RO), the TSO displays on the international platform, in the day D+1, until 10:00 o'clock, the following information:

a) The volumes metered per each of the two entry points in the NTS;

b) The gross calorific power of the gas in each of the above mentioned points.

(2) In the time frame 10:00 – 10:30 of the gas day D+1, the TSO performs the following operations:

a) calculates the energy quantity related to the virtual interconnection point, made up of the two entry points in the NTS, mentioned in par (1), based on the information provided in the same paragraph;
b) allocates, based on the information submitted to the TSO by the external suppliers, the gas quantities per each of their client.

(3) The NU injecting import gas into the virtual interconnection point are obliged to confirm / reject on the TSO's online IT platform, during 10.30 a.m.-12.30 p.m. of each gas day D+1 the amounts bought / off-taken at the virtual interconnection point on gas day D. the confirmed amounts are firm and may not be adjusted;

(4) For each NU, during 12.30-13.00 p.m. every gas day D+1 the TSO calculates the amount allocated to the former at the virtual interconnection point for gas day D.

(5) Abrogated

Art 69[1] – At the interconnection point Csanadpalota-Hungary, the daily allocation is made by the TSO in compliance with the interconnection agreement concluded between S.N.T.G.N. Transgaz S.A. Romania and FGSZ Zrt. Hungary.

Art. 69[2] – At the interconnection point Ungheni, the daily allocation is made by the TSO in compliance with the interconnection agreement concluded between S.N.T.G.N. Transgaz S.A. Romania and VESTMOLDTRANSGAZ the Republic of Moldova.

Art. 69[3] - At the interconnection point Ruse-Giurgiu, the daily allocation is made by the TSO in compliance with the interconnection agreement concluded between S.N.T.G.N. Transgaz S.A. Romania and BULGARTRANSGAZ Bulgaria.

Art.70[2]. Abrogated

Allocation at the points of exit to the distribution systems

Art.71. – On the gas day D+1, by 11.30 a.m., the TSO notifies the DSO of the following information:

a) the gas amounts metered at the points of NTS exit to the distribution systems - denominated in volume units, in thousand Scm, rounded downwards to three decimals, the name of the NUs whose nominations/re-nominations were confirmed as far as such exit points are concerned;
b) the gross calorific values related thereto for the gas day D, expressed in MWh/cm, rounded to six decimals, in accordance with Art. 37 para. (2);
c) if the TSO does not introduce in the operational platform the gross calorific values related to gas day D by 11.30 a.m. of gas day D+1, it will inform the DSO by the same platform on the use in the allocation process of the gross calorific values related to the gas day D-1.

Art. 71^1. – (1) If the metering cannot be performed due to technical reasons or if the requirements of art. 71, are not met, the daily allocation is made by the TSO based on the principle "approved allocation = nomination ", any disparities found upon technical problems settlement will be regulated afterwards.

(2) The TSO notifies the DSO through the IT platform, both the impossibility to achieve the metering due to technical reasons and the final values entered in the platform.

Art. 71^2. – The TSO will take the necessary measures to submit their information according to art. 71 to DSO, for the days officially declared free days and they will take the necessary measures to process and transmit the data to the TSO, according to Art. 71^3 and 71^4.

Art. 71^3. – (1) DSO makes the allocation per each NU for the deliveries operated by its own distribution systems based on the information submitted by the TSO by the DSO pursuant to the provisions of art. 71 regarding the points of NTS exit to the DS.

(2) Within 2 hours from the receipt of the information under art. 71, the DSO makes allocation for each NU by using:

a) the levels of the quantities metered for the final clients from the portfolio of the NU where the reading of the metering devices is performed daily. If the daily metering is not available due to technical reasons, the DSO will take into account the latest information on the daily metered amount, registered in the DSO records;

b) the quantitative levels estimated to be consumed by the final consumers of each NU's portfolio where the metering is not performed daily, determined for each NU based on the following:

- the consumer profiles developed by DSO for end clients in the portfolio of the NU
- the structure of the end clients' portfolio of each NU

(3) The consumption profiles developed by the DSO, updated at the level of the relevant gas year, are made available to the NU and TSO by publication on the website of the DSO, and are used for all NUs nominating gas amounts at the exit to the distribution systems.

(4) Until 01:00 p.m, heat producers must submit to the DSO and to their own supplier the gas quantity estimated to be used for heat generation in the cogeneration plants and in the heat generation plants meant for the consumption of the population.

Art. 71⁴. – (1) Between 1 May 2019-28 February 2022, in order to conduct the allocation process performed by the TSO, on day D+1 by 2.00 p.m., the DSO must submit to the TSO and to the NU, the information on the quantities allocated on day D to each NU according to Art. 37 (1) and (2), explicitly mentioning the allocated amounts based on the daily readings to end clients and the quantities allocated based on consumption profiles. The DSO shall submit to the NU and to the TSO, the total consumption broken down by client category, namely CC, PET and NC, taken into account for the daily allocation.

(2) During 1 October 2019 – 28 february 2022, in order to conduct the allocation process performed by the TSO, the DSO must submit to the TSO, on the day D+1 by 2.00 p.m., the information on the quantities allocated on the

day D to each NU according to art. 37, para. (1) and (2) explicitly mentioning the allocated amounts based on the daily readings to end clients and the quantities allocated based on consumption profiles. The DSO shall submit to the NU, the consumption broken down by client category, namely PET and non-household, taken into account for the daily allocation.

(3) The data provided for in para (1) and (2) are submitted to the NU until 01:30 p.m.; if the NU does not agree to the split performed by the DSO in line with the provisions of para (1) and (2), the NU shall send to the DSO, within 15 minutes from the receipt of the information, the data split per client category and to total consumption sent by the NU has to be equal to the one notified by the DSO. If the data is not sent by the NU is is considered to be tacitly approved.

Art. 71^5. Abrogated

Art. 71^6. – If the DSO is unable to submit to the TSO the allocations mentioned in art 71^4 up to 02:00 p.m. on day D +1 for day D, the metered quantities will be allocated and communicated to the NU, by the TSO at the level of the confirmed NU nominations. The subsequent settlement of the differences between the allocated quantity and the metered quantity will be performed in line with the interconnection agreement concluded between the TSO and the DSO and with the Methodology for the settlement of the difference between allocations and gas quantites actually metered prepared by NERA.

Art. 71^7 – If a DS is connected to another DS connected to the NTS, the downstream DSO will submit the information under art. 71^3, para. (2) (a) and (b) to the DSO connected to the NTS, within the deadlines provided for in the DSO-DSO interconnection agreements so that the DSO connected to the NTS shall meet the deadline under 71^4.

Allocation at the points of exit to the Direct Consumer

Art.72. – On the gas day D+1, the TSO notifies the DC pursuant to the agreement provided for in art. 25[4] par. (2), by 10.00 a.m. of the natural gas quantities metered at the points of NTS exit to the DC, expressed in volume units, in thousand Scm, rounded downwards to three decimal places, and by 11.30 the related gross calorific values for the gas day D, expressed in MWh / cm or GJ / cm, in accordance with Art. 37 para. (1) and (2).

Art. 72[1]. – If the metering cannot be performed due to technical reasons or if the requirements of art. 72 are not complied with the daily allocation is performed by the TSO on principle "allocation = approved nomination ", the possible disparities found upon the remedy of the technical problems to be regularized later on.

Art. 72[2]. – The TSO takes all the necessary measures so that in the days officially declared free days to provide the information under art. 72 to the DC, and they take the necessary steps for processing and transmitting the data to the TSOs, according to Art. 72[4] and 72[5].

Art. 72[3]. – In order to conduct the allocation process performed by the TSO, the DC are required to submit to the TSOs, on the day D+1 by 2.00 p.m., the information related to the amounts allocated to each NU on day D, split by type of import/domestic gas in accordance with art. 37 para. (1) and (2).

Art. 72[4]. – (1) The allocation is performed by the TSO based on the daily metering in the exit points located at the interface TSO-DC.

(2) If only one NU delivers gas to the DC the entire quantity metered is allocated by the TSO to it.

Art. 72[5]. – (1) If several NU deliver natural gas through the same exit point to a DC the entire metered amount will be allocated by the DC in accordance with the agreements concluded with the NU.

(2) If the DC does not make the allocations in line with the provisions of para (1) the TSO makes the allocation for each NU, split by type of import/domestic type pro-rata with the approved nominations (pro rata).

Art.73. Abrogated

Monthly allocation

Art.74. – (1) The TSO performs the final monthly allocation no later than the 13th day of the following month (M + 1) to the month (M) when it provided the transmission services for each NU in order to quantify the gas transmission service provided by the TSO and to determine the final imbalances related to month M.

(2) The monthly allocation is equal with the sum of the daily allocations determined according to the provisions of art. 66 which is adjusted by the potential corrections resulted from metering systems' bias as agreed with the neighbouring system operators based on the analysis of the data discharges from the metering systems – metered values, configuration logs, alarms and events logs, notified according to the provisions of para. (3).

(3) All corrections will be notified to all neighbouring system operators until the 8th day of the month M + 1 for the month M, the distributor will complete the monthly allocation until the 11th day of the month M + 1 for the month M.

(4) The differences between the levels of the monthly measured volumes, i.e. the value of the monthly gas energy and the monthly final allocation is determined according to the Methodology for regulating the differences between the allocations and the actually metered gas amounts, prepared by ANRE.

(5) TSO notifies the NU of all the corrections agreed with the neighbouring system operators which occurred over the entire month and of the final monthly allocations by means of the notifications uploaded in the IT platform.

Art.75. – (1) Quantities of natural gas supplied during the month M are undertaken by the TSO and producers / DSO / DC /USO and by signing the protocols set out in Annex. 9 of this Code.

(2) In order to pass through the monthly allocation process the TSO submits to DSO / DC or receives from the producers / SSO within the first 2 working days of the month M + 1, the quantities of natural gas specified in the protocols set out in Annex. 9 of this Code in accordance with Art. 37 para. (1) and (2).

(3) The TSO downloads all data related to the metering systems each month, finds any possible differences or metering failures, elaborates calculation algorithms to correct for differences/problems found, agrees on them together with their neighbouring system operators to which they also submit such downloads and retransmits the

reports drawn under par. (2) modified accordingly until the 8th of the month M + 1. Agreeing corrections discovered, forwarding the protocols and the performance by the producers / DSO / DC / SSO of the allocations of the natural gas quantities related to the days in which there were corrections will be completed by the 11th day of the month M + 1, 12:00.

(4) Starting with the 8th of the month M+1, the IT platform of the TSO is open, facilitating the final allocation process performed by the producers/DSO/DC/SSO.

(5) If there are conflicts between the TSOs and the neighbouring system operators related to the metered gas quantities and/or the corrections found upon the monthly downloads, and these conflicts are not solved until the deadline set in paragraph (3), the final allocation displayed according to the provisions of par (5) is equal to the initial allocation and the gas quantities subject of the conflict will be regulated once the conflict is solved that is when the corrected values are agreed upon.

(6) Abrogated

(7) On the 14th day of the month M+1, 12:00 o'clock, based on the monthly final allocation determined according to the provisions of art. 74, the TSO signs the reports under annex 9 with the NU and issues the monthly invoices according to art. 105 (1) (b).

Art. 76 - Abrogated

NTS Congestion Management

Art. 77 - (1) The capacity approved but not used by the NU may be subject to:

a) return to TSO according to Art. 78;

b) transfer of the right to use the booked capacity according to the provisions of art. 79;

c) full transfer of the rights and obligations arising from the transmission contract related to the points of NTS entry / transmission contract related to the NTS exit points according to the provisions of art. 80;

d) withdrawal by the TSO based on the "use-it-or-lose-it" mechanism pursuant to the provisions of art. 81.

(2) The provisions of para. (1) do not apply to the capacity booked pursuant to art. 25^1.

Secondary capacity market

Art. 77^1 – (1) the NU is entitled to transfer to other NUs either the right to use the booked capacity or to fully transfer the rights and obligations arising from the transmission contract related to points of NTS entry / transmission contract related to the NTS exit points.

(2) For the interconnection points, the transfers contemplated in art. 69^1 and 69^3 will be made by means of the Regional Booking Platform operated by FGSZ and for the other points of NTS entry/exit by means of the SCM.

(3) The SCM transactions may be completed between the NUs having ongoing transmission contracts related to the points of NTS entry / transmission contracts related to the points of NTS exit concluded with the TSO.

(4) SCM transactions are completed independently at the entry or exit points for which capacity was booked. The NU having the right to use the capacity may use such capacity only at the point which was subject of the transaction.

(5) The nature of the capacity products – firm, interruptible – traded on the Main Capacity Market may not be exchanged by trading on the SCM.

(6) The TSO offers the NU the possibility to publish the offers on the capacity transfers, by means of the SCM.

(7) If 2 NUs agree to make a capacity transfer, they select one of the following means of trading on the SCM:

a) transfer of the right to use capacity;

b) full transfer of the rights and obligations arising from the transmission contract related to points of NTS entry / transmission contract related to the NTS exit points.

(8) The TSO approves the transfer based on the same criteria used for capacity trading on the Main Capacity Market.

Voluntary Capacity Return

Art.78. – (1) The NU having contracts concluded for capacity products with a duration higher or equal to a gas month may fully or partially return the contracted firm capacity.

(2) The NU may not trade the capacity which is subject of the application for return on the SCM. An application for return may be withdrawn by the NU if the return capacity was not allocated to another NU within the Main Capacity Market.

(3) The firm bundled capacity may be returned only in the form of firm bundled capacity.

(4) The NU initiates the return process by means of the Main Capacity Market made available by the TSO.

(5) The receipt confirmation of the application for return is delivered by the TSO by means of the Main Capacity Market. This TSO confirmation shall not release the NU from the obligation to pay the capacity which is the subject of the return.

(6) The TSO shall publish on the Main Capacity Market the capacity products which are the object of the NU return. Such products are tagged on the Main Capacity Market as “return”.

(7) The capacity return can be made on any day or days after the TSO’s delivery of the receipt confirmation of the NU application and for any portion of the initially contracted capacity.

(8) The returned capacity is offered by the TSO on behalf of the NU by the Main Capacity Market by day D-1, 12.00 p.m. The returned capacity which could not be sold by day D-1, 12.00 p.m. may be offered by the NU on the SCM.

(9) The contracted capacity which is subject of a NU’s application for return is allocated to other NUs by the TSO as follows:

a) after the allocation of the TSO portfolio’s firm capacity registered as available at the entry and/or exit point where the NU requested the capacity return;

b) before the allocation of the capacity withdrawn by the application of the mechanism described at art. 81.

(10) The tariff applicable to the NU beneficiary of the capacity which was subject of the initiating NU's return is as provided in the contract concluded between the TSO and the NU initiating the capacity return.

(11) The initiating NU shall maintain its contractual rights and obligations until the returned capacity of a portion thereof is returned to the NU beneficiary.

(12) After the re-allocation to the NU beneficiary, the TSO and the NU initiating shall properly maintain the initial contract so that it reflects the decrease in the capacity owned by the latter upon the re-allocation by the capacity re-allocated to the NU beneficiary. The NU beneficiary is obliged to make proof of the payment financial guarantees to the TSO according to the provisions of the gas transmission contracts related to the NTS entry points / transmission contracts related to the NTS exit points.

(13) If more NUs choose to return capacities at the same entry and/or exit points, the applications are treated based on the "First come-first-served" principle.

The transfer of the right to use the booked capacity

Art.79. – (1) A NU named initial NU may transfer the right to use the booked capacity, in full or in part, to another NU named NU beneficiary, without the approval of the TSO. The means of trading is applicable for the annual, quarterly and monthly capacity products.

(2) The NU beneficiary assumes all rights and obligations arising out of the transfer of the capacity use right, except for the obligation to pay the capacity for which it was granted the use right.

(3) The initial NU assumes the obligation to pay the capacity which is subject of the use right transfer to the NU beneficiary.

(4) The operable capacity transfer requests for a period starting from the gas day D are sent in the online information platform of the TSO until the calendar day D-1, 12:00 o'clock, the latest. The transmission capacity booked by a NU, adjusted by the capacity transfers performed by the latter in line with the provisions of this paragraph and of article 80 para (2) and approved by the TSO until 02:00 p.m. of the calendar day D-1, the latest, is taken into account by the TSO within the nomination, renomination and calculation of the capacity excess performed for the capacity transfer period provided for in the capacity transfer request of that NU and approved by the TSO.

(4^1) The operable capacity transfer requests for the gas day D are sent in the online information platform of the TSO in the time frame 06:00 a.m. – 03:00 p.m. of the calendar gas day D. the transmission capacity booked by a NU, adjusted by the capacity transfers performed by it in line with the provisions of this paragraph and of article 80 para (2^1) and approved by the TSO until 05:00 p.m. of the calendar D, the latest, is taken into account by the TSO within the calculation of the capacity excess process related to the gas day D.

(5) The TSO receives the information under para. (4) from the NU at least 2 hours before the deadline for the submission of the nominations and confirms the transaction as soon as the information from both NUs counterparts have been received, no later than 1.5 hours after the information on the transactions completed by both parties have been received.

(6) The TSO may refuse to confirm the transactions on the transfer of the capacity use right in the following situations:

a) the information is received from a single NU
b) the information submitted by the NU does not match or the information submitted is incomplete
c) the information is submitted later that 2 hours before the deadline for the submission of the nominations
d) the traded capacity is subject of the capacity return requested by the initial NU.

(7) The TSO notifies, by SCM, both NUs involved in the capacity use right transfer of its decision to refuse to confirm the transactions. In this case the transfer is deemed null.

(8) The initial NU and the NU beneficiary may renounce the confirmed transaction by informing the TSO, by the SCM, about this renunciation by the deadline for the delivery of the nominations. The TSO confirms the parties' renunciation of the transactions only if both NUs have notifies the TSO in this respect.

(9) Provided that the notification of the renunciation decision is notified by only one of the NUs involved in the transaction, the TSO considers that the relevant transaction remains valid. In this case, the TSO notifies both the initial NU and the NU beneficiary of its decision.

(10) The TSO publishes on its website updated information on the total volume of the capacity offered / requested and transferred on the secondary market as well as other information regarding such transactions (entry/exit point, type of capacity, etc.). The procedures and rulebook related to the SCM platform shall be published on the TSO's website, in sufficient due time before their entry into force so that they allow the NU to test the platform.

(11) If the initial NU fails to fulfil its payment obligations, the TSO may notify both the initial NU and the NU beneficiary of the transfer ending date.

(12) The provisions of para. (1) are not applicable to the virtual points of NTS entry from the production fields and to the cross-border interconnection points.

Full transfer of the rights and obligations arising out of the transmission contract related to the NTS entry points / transmission contract related to the NTS exit points

Art.80. – (1) a NU named initial NU may transfer the rights and obligations arising out of the capacity contract (firm or interruptible) on the entire booked capacity or on a part thereof to another NU named NU beneficiary, based on the TSO's approval.

(2) The NU beneficiary shall assume all rights and obligations arising out of the transfer, including the obligation to pay the capacity which is subject of this transfer. The TSO shall properly amend the contracts concluded both with the initial NU and with the NU beneficiary.

~~(3) The amended capacity contracts are mandatorily concluded minimum 2 days before the transfer period commencement date.~~

(4) In view of the transfer, the initial NU and the NU beneficiary submit a transfer request to the TSO comprising at least the following:

a) identification data of the NU beneficiary / initial NU, as appropriate

b) identification data of the contract concluded between the initial NU and the TSO

c) identification data of the contract concluded between the NU beneficiary and the TSO

d) entry and/or exit point/points

e) entry and/or exit capacity which is subject of the transfer

f) transfer period commencement and ending date

g) type of capacity product (monthly, quarterly, annual)

h) nature of the capacity (firm, interruptible)

(5) The initial NU and the beneficiary NU submit their capacity transfer application to the TSO for a period starting with the gas day D, until the gas day D-1, 12:00 o'clock, the latest. The capacity transfer application is sent in the online information platform of the TSO. The transmission capacity booked by a NU, adjusted by the capacity transfers performed by the latter in line with the provisions of this paragraph and of article 79 and confirmed by the TSO at least two hours before the deadline for submitting nominations within the calendar day D-1 is taken into account by the TSO within the nomination, re-nomination, and calculation of the capacity surplus processes carried out for the capacity transfer period provided for in the capacity trtansfer application of that NU and confirmed by the TSO.

(5[1]) The initial NU and the beneficiary NU submit their capacity transfer application to the TSO for the gas day D in the online information platform of the TSO in the time frame 07:00 a.m. – 03:00 p.m. of the gas day D. the transmission capacity booked by a NU adjusted by the capacity transfers performed by the latted in line with the provisions of this paragraph and of article 79 is taken into account by the TSO within the renomination procedures and capacity surplus calculations carried out for the gas day D.

(6) The TSO notifies the initial NU and the NU beneficiary of its decision to approve / reject the transfer within at least 2 hours before the deadline to submit nominations within the calendar day D-1, in the case of the transfer application provided for in para (5), respectively, until 05:00 p.m. of the calendar day D, the latest, in the case of the capacity transfer application provided for in paragraph (5[1]).

(7) The TSO refuses to validate the transfer from the initial NU to the NU beneficiary if such capacity is subject to the capacity return requested by the initial NU or, the level of the financial payment guarantee established by the NU beneficiary in favour of the TSO does not cover the booked transmission capacity adjusted by the requested capacity transfer or, the transmission capacity booked by the NU, adjusted by the capacity transfers performed by the latter in line with the provisions of para (5[1]) and of art 79 exceeds the technical capacity of that entry/exit in/out of the NTS.

(8)The provisions of para. (1) do not apply to the virtual point of NTS entry from the production fields and to the cross-border interconnection points.

(8[1]) The provisions of para (1) also apply if the NU requests the TSO to perform a transmission capacity transfer between the virtual NTS entry points from the underground storage facilities and the virtual NTS entry points from the adjacent gas transmission systems in which capacity is booked based on the principle “first come first served’, in which it booked transmission capacity.

(9) The full transfer of the rights and obligations are applied to the annual, quarterly and monthly capacity products contracted by the initial NU.

(10) The provisions of para (1) are also applied if the NU requests the TSO to perform a transmission capacity transfer of the capacity booked between the virtual NTS exit points to the DS and/or DC and the exit points at the interface between the NTS and the underground storage facilities.

Art.80[1]. Abrogated

Withdrawal of the booked capacity by the "use-it-or-lose-it" mechanism

Art.81. – (1) In case of contractual congestion, the CA may request the TSO to withdraw the entry and/or exit capacity booked by the NU for one or more gas years provided that the relevant capacity is used to a low extent.

(2) The contracted capacity is deemed to be used to a low extent if:

a) the NU uses less than 80% of its contracted capacity in average, both during the period 1 April – 30 September and during the period 1 October – 31 March, and no reliable justification could be submitted in this respect; or

b) the NU systematically nominates almost 100% of its contracted capacity and re-nominates downwards.

(3) the TSO monitors the use extent of the contracted capacity with an actual contractual duration of over one year or recurring quarters covering at least two years and submits the monitoring report to the CA by 1 October each gas year.

(4) The maximum level of the capacity which could be withdrawn is equal to the difference between the capacity booked by the NU and the maximum level of the capacity used by the latter during the relevant period. For the determination of the maximum level of the capacity to be withdrawn, the TSO will consider:

a) any transfer, withdrawal or other reduction of the booked capacity by the NU during the reference period.

b) existence of multiple NU with unused capacities at the same NTS entry and/or exit point where the TSO faces contractual congestion.

(5) The TSO is obliged to develop the capacity for the points where physical congestion is found.

NTS Balancing

Art. 82 - The NTS physical, operational and commercial balancing defines to a range of activities and procedures required for the allocation of the gas amounts to NUs and for ensuring safe gas transmission through the NTS.

Physical and Operational Balancing

Art. 83 - The physical balancing is the management and balancing of the gas quantities transmitted through the NTS by monitoring and controlling the flow, pressure and gross calorific power parameters related to the gas in the entry and exit points as well as in the technological hubs of the NTS.

Art.83[1]. – The NTS is in balance condition when on all the transmission directions the following conditions are fulfilled at the same time:

a) the appropriate pressure conditions are registered for the safe operation of the NTS;
b) the gas quantities related to the NU portfolios exited from the NTS are situated at the same level with the gas quantities entered in the NTS during a gas day.

Art.83[2]. – (1) According to the provisions of the Power and Gas Law no 123/2012, as subsequently amended and supplemented, the TSO cannot own gas but for the balancing and safe operation of the NTS.

(2) In order to ensure the NTS balancing, the TSO performs the operational balancing actions provided for at chapter III, art. 6, para. (3) of Regulation (EU) no. 312/2014 of the Commission of 26 March 2014 for the establishment of a network code on the balancing of gas transmission networks.

(3) Additionally to the actions established under paragraph (2), in order to secure the safe operation of the NTS, the TSO must have a sufficient quantity of gas available for the physical balancing of the system as gas stored in the pipelines and/or balancing gas stored in the underground storage facilities.

(4) The balancing actions of the TSO will be determined only by the objective necessity to maintain the operative parameters related to the operation of the NTS within the maximum and minimum limits set and published by the TSO on its own website, in the section dedicated to the NU, being independent of the possible commercial imbalances of each NU.

(5) The balancing actions may be prevented as well, in the sense that they are undertaken in order to avoid the risk of affecting limits of the NTS operation parameters, risk resulted from the daily calculations performed by the TSO, based on the data from the preliminary transmission programs and/or the NU daily nominations, for the optimization of the gas flows in the system.

(6) The purchase of natural gas performed by the TSO for their use for its own technological consumption is not considered balancing action of the NTS.

(7) The operations undertaken by the TSO for the physical balancing of the NTS are meant for the balancing of the differences between the gas quantities delivered in the NTS by the NU and the ones overtaken by them from the NTS during a gas day or as a result of the occurrence of unexpected events.

(8) Abrogated

(9) Abrogated

(10) Until the end of each gas day, the TSO publishes on its own webpage, at the section dedicated to the NU and in the informational platform for each NTS operational balancing action materialized by the sale or purchase of balancing gas quantities and for each gas day for which the balancing action is performed, information related to the type of balancing action (preventive or not), the type of the transaction (sale or purchase), the quantity of traded

gas, the price related to each transaction, the average weighted price of the sale transactions performed by the TSO and the weighted average price of the purchase transactions performed by the TSO for that gas day.

Art. 84 - (1) The TSO dispatching center receives daily information on the approved nominations/re-nominations uploaded to the IT Platform for:

- NU;
- TSO, for own technological consumption;
- TSO, for NTS balancing gas;

(2) The calculations made by the TSO to improve the gas flow through the NTS for each gas day of the subsequent gas week shall include the following:

a) forecast of the line-pack at the beginning of the gas day;
b) forecast of the line-pack at the end of the gas day;
c) identification of the restrains if the deliveries are forecasted to exceed the available capacity at the relevant location (e.g. through pipeline sections which are to be repaired);
d) identification of the balancing gas amounts for the subsequent gas day in order to make use of the underground storage facilities and/or of other gas sources.

Commercial Balancing

Art.85. – (1) The commercial balancing is a set of actions by which the NU balance their gas quantities they introduce and take over from the NTS and all the activities necessary for the bookkeeping and correct allocation of the transmitted gas.

(2) In view of the NUs' commercially balancing the gas quantities injected and taken over from the NTS in respect of their own portfolios, the TSO provides the former with at least the information under Regulation (EU) no. 312/2014 on the "base scenario" according to the regulations approved by ANRE, according to the provisions of art. 37.

(3) In view of balancing its own portfolio, the NU proceeds to:

a) re-nominate the gas quantities to be injected to/taken over the NTS until the end of the gas day D;

b) trade short-term standardized products offered on the trading platforms;

c) bilateral trading.

Balancing equations

A. General NTS balancing equation

$$E_{PROD} + E_{IMP} + E_{DEP}^{EXTR} = E + E_{CTLd} + E_{CTNe} + E_{PL} + \Delta E_{STOCCOND} + E_{DEP}^{INJ} \quad (1)$$

where:

- E_{PROD} - the energy of gas delivered by all NUs at NTS entry points from the production fields and the energy of gas delivered by TSO at NTS same points.

For a number $i = \overline{1,n}$ of NU and for a number $j = \overline{1,p_{prod}}$ of entry points from the production fields, E_{PROD} may be as follows:

$$E_{PROD} = \sum_{i=1}^{n} \sum_{j=1}^{p_{prod}} E_{PROD_j}^{UR_i} + \sum_{j=1}^{p_{prod}} E_{PROD_j}^{OST} \quad (2)$$

- E_{IMP} - the energy of gas delivered by all NUs at NTS import entry points and the energy of gas delivered by TSO at NTS same points.

For a number $i = \overline{1,n}$ of NU and for a number $k = \overline{1,p_{imp}}$ of import entry points, E_{IMP} may be as follows:

$$E_{IMP} = \sum_{i=1}^{n} \sum_{k=1}^{p_{imp}} E_{IMPk}^{UR_i} + \sum_{k=1}^{p_{imp}} E_{IMPk}^{OST} \quad (3)$$

• E_{DEP}^{EXTR} - the energy of gas delivered by all NUs at all entry/exit points of the storage facilities included in the withdrawal cycle and the energy of gas delivered by TSO at NTS same points.

This formula includes two components, respectively:

$$E_{DEP}^{EXTR.} = E_{DEP}^{SURSA_{EXTR}} + E_{DEP}^{ECH_{EXTR}} \quad (4)$$

where:

$E_{DEP}^{SURSA_{EXTR.}}$ - the energy of gas delivered to NTS under source mode, by all NUs at all entry/exit points of the storage facilities included in the withdrawal cycle and the energy of gas delivered by TSO at NTS same points.

For a number $i = \overline{1,n}$ of NU and for a number $l = \overline{1,p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP}^{SURSA_{EXTR}}$ may be as follows:

$$E_{DEP}^{SURSA_{EXTR}} = \sum_{i=1}^{n} \sum_{l=1}^{p_{înm.}} E_{DEP_l}^{SURSA_{EXTR.}-UR_i} + \sum_{l=1}^{p_{înm.}} E_{DEP_l}^{SURSA_{EXTR.}-OST} \quad (4.1)$$

$E_{DEP}^{Ech_{extr.}}$ - the energy of gas delivered under balancing mode, by all NUs at all NTS entry/exit of the storage facilities included in the withdrawal cycle and the energy of gas delivered by TSO at NTS same points.

For a number $i = \overline{1,n}$ of NU and for a number $l = \overline{1,p_{DEP.}}$ of storage facilities' entry/exit points, $E_{DEP.}^{ECH_{EXTR.}}$ may be as follows:

$$E_{DEP}^{ECH_{EXTR.}} = \sum_{i=1}^{n} \sum_{l=1}^{p_{DEP.}} E_{DEP_l}^{ECH_{EXTR.}-UR_i} + \sum_{l=1}^{p_{DEP.}} E_{DEP_l}^{ECH_{EXTR.}-OST} \quad (4.2)$$

- E - the energy of gas taken over by all NUs from all NTS exit points, except the points afferent to the storage facilities, by all NUs.

For a number $i = \overline{1,n}$ of NU and for a number $m = \overline{1,p}$ of NTS exit points, except the points afferent to the storage facilities, E may be as follows:

$$E = \sum_{i=1}^{n} \sum_{m=1}^{p} E_m^{UR_i} \quad (5)$$

- E_{CTLd} - the energy of gas afferent to located- determined technological consumptions - representing the energy of gas consumed by TSO to perform the activities related to gas transmission through NTS.

E_{CTLd} element is calculated as the sum of the following energies:

- the energy of gas used as fuel for the consumption of compression stations;
- the energy of gas used as fuel for heating the gas and the technological facilities;
- the energy of gas exhausted from pipelines in order to clean them of foreign matter;
- the energy of gas used to blow off the foreign matter from liquid separators;
- the energy of gas exhausted during regular check and adjustment of pressure relief valves;
- the energy of gas used for NTS repair, rehabilitation and development works.

The above mentioned energies shall be calculated using a mean calorific power for the entire NTS.

- E_{CTNe} - the energy of gas afferent to non-located – estimated technological consumptions - representing the energy of gas accidentally exhausted from NTS.

E_{CTNe} element represents the sum of the following energies:

- the energy of gas exhausted due to outrunning the pipelines standard operation life cycle;

- the energy of gas exhausted by detachable joint seals, caused by operation wear and tear;
- the energy of gas exhausted by the pressure relief valves due to an accidental increase of pressure;
- the energy of gas exhausted due to technical accidents (cracks, fractures).

The above mentioned energies shall be calculated using a mean calorific power for the entire NTS.

- E_{PL} - the energy of gas afferent to losses localized in NTS – representing the energy afferent to the gas quantity which should have been taken over by one or several NUs but which was lost due to faults located in a section adjacent to one or several NTS physical exit points.

For a number $i = \overline{1,n}$ of NU, E_{PL} may be as follows:

$$E_{PL} = \sum_{i=1}^{n} E_{PL}^{UR_r} \quad (7)$$

where: $E_{PL}^{UR_r}$ - the nominated energy but not taken over by NU `r` at the exit points affected by a NTS located fault:

If the NTS located gas loss affects only one NU `r`, the $E_{PL}^{UR_r}$ element shall be determined using the following formula:

$$E_{PL}^{UR_i} = E_{nominalizat}^{UR_i - afectat} - E_{preluat}^{UR_i - afectat} \quad (8)$$

where: $E_{nominalizat}^{UR_i - afectat}$ - the energy nominated by NU `r` at the exit points affected by a NTS located fault;

$E_{preluat}^{UR_i-afectat}$ - the energy taken over by NU `r` at the exit points affected by a NTS located fault;

Comment: $E_{preluat}^{UR_i-afectat}$ element is included in the E component of equation (1).

If the NTS located gas loss affects two or several NUs, the E_{PL} component shall be calculated for each of them using the following formula:

$$E_{PL}^{UR_i} = E_{PL} \times \frac{E_{nominalizata}^{UR_i-afectat}}{\sum_{afectati} E_{nominalizata}} \quad (9)$$

where: $\sum_{afectati} E_{nominalizata}$ - the sum of energies nominated by all NUs at the exit points affected by a NTS located fault;

E_{PL} element, included in the equation, has only a balancing purpose.

The TSO shall recover, on its own expense, all located losses occurred in NTS, except the Force Majeure events.

Upon NU submission of supporting documents, proving the cost of gas, TSO shall ensure:

- financial indemnification within 1 calendar month, or
- the lost gas quantity, on a mutually agreed date, depending on the settlement method agreed by the parties.

- $\Delta E_{STOCCOND}$ - the energy fluctuation of gas stored in NTS pipelines – representing the difference between the energy contained by NTS at the beginning of a gas day and the energy contained by NTS at the end of the same gas day.
- E_{DEP}^{INJ} - the energy of gas taken over from NTS by all NUs and the energy of gas taken off from NTS by TSO at all entry/exit points of the storage facilities included in the injection cycle.

This element has two components, respectively:

$$E_{DEP}^{INJ} = E_{DEP}^{SURSA_{INJ}} + E_{DEP}^{ECH_{INJ}} \quad (10)$$

where:

$E_{DEP}^{SURSA_{INJ.}}$ - the energy of gas taken over from NTS by all NUs under source mode and the energy of gas taken off from NTS by TSO at all entry/exit points of the storage facilities included in the injection cycle.

For a number $i = \overline{1,n}$ of NU and a number $l = \overline{1,p_{DEP.}}$ of storage facilities' entry/exit points, $E_{DEP}^{SURSA._{INJ.}}$ may be as follows:

$$E_{DEP}^{SURSA_{INJ.}} = \sum_{i=1}^{n} \sum_{l=1}^{p_{DEP.}} E_{DEP_l}^{SURSA_{INJ}-UR_i} + \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{SURSA_{INJ}-OST} \quad (10.1)$$

$E_{DEP}^{ECH_{INJ}}$ - the energy of gas taken over from NTS by all NUs under balancing mode and the energy of gas taken off from NTS by TSO at all entry/exit points of the storage facilities included in the injection cycle.

For a number $i = \overline{1,n}$ of NU and a number $l = \overline{1,p_{DEP.}}$ of storage facilities' entry/exit points, $E_{DEP.}^{ECH_{INJ}}$ may be as follows:

$$E_{DEP}^{ECH_{INJ}} = \sum_{i=1}^{n} \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{ECH_{INJ}-UR_i} + \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{ECH_{INJ}-OST} \quad (10.2)$$

B. NU balancing equation

$$E_{PROD}^{UR_i} + E_{IMP}^{UR_i} + E_{DEP}^{EXTR-UR_i} + E_{FTG}^{g.primite-UR_i} + E_{CD}^{UR_i} = E^{UR_i} + E_{PL}^{UR_i} + E_{DEP}^{INJ-UR_i} + E_{FTG}^{g.cedate-UR_i} \quad (11)$$

where:

- $E_{PROD}^{UR_i}$ - the energy of gas delivered to NTS by all NUs `i`, at all entry points of the production fields.

For a number $j = \overline{1, p_{PROD}}$ of entry points of the production fields, $E_{PROD}^{UR_i}$ component shall be calculated using the following formula:

$$E_{PROD}^{UR_i} = \sum_{j=1}^{p_{PROD}} E_{PROD_j}^{UR_i} = \sum_{j=1}^{p_{PROD}} \left(V_{PROD_j}^{UR_i} \times PCS_j \right) \quad (12)$$

where:

$V_{PROD_j}^{UR_i}$ - is the gas volume delivered from the production fields to NTS by UR `i` at `j` entry point;

PCS_j - is the determined gross calorific power afferent to `j` entry point of the production fields.

- $E_{IMP}^{UR_i}$ - the energy of import gas delivered to NTS by NU `i`, at all entry points.

For a number $k = \overline{1, p_{IMP.}}$ of import entry points, $E_{IMP}^{UR_i}$ element shall be calculated using the following formula:

$$E_{IMP}^{UR_i} = \sum_{k=1}^{p_{IMP}} E_{IMP_k}^{UR_i} = \sum_{k=1}^{p_{IMP}} \left(V_{IMP_k}^{UR_i} \times PCS_k \right) \quad (13)$$

where:

$V_{IMP_k}^{UR_i}$ - is the import gas volume delivered to NTS by NU `i` at `k` import entry point;

PCS_k - is the determined gross calorific power afferent to `k` import entry point.

- $E_{DEP}^{EXTR\text{-}UR_i}$ - the energy of gas delivered to NTS by NU `i`, at all entry/exit points of the storage facilities included in the withdrawal cycle.

This element has two components, respectively:

$$E_{DEP}^{EXTR\text{-}UR_i} = E_{DEP}^{SURSA_{EXTR}-UR_i} + E_{DEP}^{ECH_{EXTR.}-UR_i} \quad (14)$$

where:

$E_{DEP}^{SURSA._{EXTR}-UR_i}$ - the energy of gas delivered to NTS under source mode by NU `i`, at all entry/exit points of the storage facilities included in the withdrawal cycle.

For a number $l = \overline{1, p_{DEP.}}$ of storage facilities' entry/exit points, $E_{DEP}^{SURSA_{EXTR}-UR_i}$ element shall be calculated using the following formula:

$$E_{DEP}^{SURSA._{EXTR}-UR_i} = \sum_{l=1}^{p_{INM}} E_{DEP_l}^{SURSA._{EXTR}-UR_i} = \sum_{l=1}^{p_{INM}} \left(V_{DEP_l}^{SURSA._{EXTR}-UR_i} \times PCS_l \right) \quad (14.1)$$

where:

$V_{DEP_l}^{SURSA._{EXTR}-UR_i}$ - is the gas volume delivered to NTS under source mode , by NU `i` at `l` entry/exit point of the storage facilities included in the withdrawal cycle;

PCS_l - is the determined gross calorific power afferent to `l` entry/exit point of the storage facilities.

$E_{DEP.}^{ECH_{EXTR}-UR_i}$ - the energy of gas delivered to NTS under balancing mode by NU `i`, at all entry/exit points of the storage facilities included in the withdrawal cycle.

For a number $l = \overline{1, p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP.}^{ECH_{EXTR}-UR_i}$ element shall be calculated using the following formula:

$$E_{DEP}^{ECH_{EXTR}-UR_i} = \sum_{l=1}^{p_{INM}} E_{DEP_l}^{ECH_{EXTR}-UR_i} = \sum_{l=1}^{p_{INM}} \left(V_{DEP_l}^{ECH_{EXTR}-UR_i} \times PCS_l \right) \quad (14.2)$$

where:

$V_{DEP_l}^{ECH_{EXTR}-UR_i}$ - is the gas volume delivered to NTS under balancing mode by NU `i`, at `l` entry/exit point of the storage facilities included in the withdrawal cycle;

PCS_l - is the determined gross calorific power afferent to `l` entry/exit point of the storage facilities.

- $E_{g\ cumparat\hat{a}\ n\ PVT\text{-}UR\ (i)}$ - the energy of gas purchased by NU `i` at the VTP.

The $E_{g\ cumparat\hat{a}\ n\ PVT\text{-}UR\ (i)}$ element shall be calculated as the algebraic sum of all gas quantities – expressed as energy units – purchased at the VTP.

- $E_{CD}^{UR_i}$ - the imbalance component of NU `i` – representing the gas energy required to keep the balance of NU `i` client portfolio.

The $E_{CD}^{UR_i}$ element represents the actual result of NU `i` (11) balancing equation.

The $E_{CD}^{UR_i}$ element's value may be:

- zero – indicating that NU `i` was unable to keep its client portfolio balance;
- positive – indicating that NTS gas off-takes of NU „i` are higher than the deliveries;
- negative - indicating that NTS gas off-takes of NU `i` are below the deliveries.

- E^{UR_i} - the energy of gas taken over from NTS by NU `i` at all exit points, except the points afferent to the storage facilities.

For a number $m = \overline{1,p}$ of NTS exit points, except the points afferent to the storage facilities, the E^{UR_i} element shall be calculated using the following formula:

$$E^{UR_i} = \sum_{m=1}^{p} E_m^{UR_i} = \sum_{m=1}^{p} \left(V_m^{UR_i} \times PCS_m \right) \quad (15)$$

where:

$V_m^{UR_i}$ - is the gas volume taken over from NTS by NU `i`, at `m` exit point;

PCS_m - is the determined gross calorific power afferent to `m` exit point.

- $E_{PL}^{UR_i}$ - the gas energy efferent to NTS located losses, which should have been taken over by NU `i`.

The $E_{PL}^{UR_i}$ element shall be calculated using the (8) and (9) formulas.

- $E_{DEP}^{INJ-UR_i}$ - the energy of gas taken over from NTS by NU `i`, at all entry/exit points of the storage facilities included in the injection cycle.

This element has two components, respectively:

$$E_{DEP}^{INJ-UR_i} = E_{DEP}^{SURSA_{INJ}-UR_i} + E_{DEP}^{ECH_{INJ.}-UR_i} \quad (16)$$

where:

$E_{DEP}^{SURSA_{INJ}-UR_i}$ - the energy of gas taken from NTS under source mode by NU `i`, at all entry/exit points of the storage facilities included in the injection cycle.

For a number $l = \overline{1, p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP}^{SURSA_{INJ}-UR_i}$ component shall be calculated using the following formula:

$$E_{DEP}^{SURSA_{INJ}-UR_i} = \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{SURSA_{INJ}-UR_i} = \sum_{l=1}^{p_{DEP}} \left(V_{DEP_l}^{SURSA_{INJ}-UR_i} \times PCS_l \right) \quad (16.1)$$

where:

$V_{DEP_l}^{SURSA_{INJ}-UR_i}$ - is the gas volume taken over by NU `i` from NTS under source mode, at `l` entry/exit point of the storage facilities included in the injection cycle;

PCS_l - is the determined gross calorific power afferent to `l` storage facilities' entry/exit points.

$E_{DEP}^{ECH_{INJ}-UR_i}$ - the energy of gas taken over by NU `i` from NTS under balancing mode, at all entry/exit points of the storage facilities included in the injection cycle.

For a number $l = \overline{1, p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP}^{ECH_{INJ}-UR_i}$ component shall be calculated using the following formula:

$$E_{DEP.}^{ECH_{INJ}-UR_i} = \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{ECH_{INJ}-UR_i} = \sum_{l=1}^{p_{DEP}} \left(V_{DEP_l}^{ECH_{INJ}-UR_i} \times PCS_l \right) \quad ` \quad (16.2)$$

where:

$V_{DEP_l}^{ECH_{INJ-UR_i}}$ - is the gas volume taken over by NU `i` from NTS under balancing mode, at `l` entry/exit point of the storage facilities included in the injection cycle;

PCS_l - is the determined gross calorific power afferent to `l` storage facilities' entry/exit points.

- $E_{g\ vandut\ ein\ PVT\text{-}UR\ (i)}$ - the energy of gas sold at the VTP by NU `i`.

The $E_{g\ vandut\ ein\ PVT\text{-}UR\ (i)}$ element shall be calculated using the algebraic sum of all gas quantities sold at the VTP expressed as energy units.

C. TSO balancing equation

$$E_{PROD}^{OST} + E_{IMP}^{OST} + E_{DEP}^{EXTR-OST} + E_{CER}^{OST} = E_{CTLd} + E_{CTNeE} + \Delta E_{STOCCOND} + E_{DEP}^{INJ-OST} \quad (17)$$

where:

- E_{PROD}^{OST} - the energy of gas delivered by TSO to NTS, at all entry points of the production fields.

For a number $j = \overline{1, p_{PROD}}$ of production fields' entry points, $E_{Prod.}^{OST}$ component shall be calculated using the following formula:

$$E_{PROD}^{OST} = \sum_{j=1}^{p_{PROD}} E_{PROD_j}^{OST} = \sum_{j=1}^{p_{PROD}} \left(V_{PROD_j}^{OST} \times PCS_j \right) \quad (18)$$

where:

$V_{PROD_j}^{OST}$ - is the gas volume delivered by TSO to NTS at `j` entry point of the production fields;

PCS_j - is the determined gross calorific power afferent to `j` production fields' entry point.

- E_{IMP}^{OST} - the energy of import gas delivered to NTS by TSO, at all entry points.

E_{IMP}^{OST} component does not take into account the energy of gas representing the value of transit services provided by TSO, gas which is supplied to TSO clients. This gas is included in the import component of each NU who buys gas from TSO.

For a number $k = \overline{1, P_{IMP}}$ of import entry points, E_{IMP}^{OST} component shall be calculated using the following formula:

$$E_{IMP}^{OST} = \sum_{k=1}^{P_{IMP}} E_{IMP_k}^{OST} = \sum_{k=1}^{P_{IMP}} \left(V_{IMP_k}^{OST} \times PCS_k \right) \quad (19)$$

where:

$V_{IMP_k}^{OST}$ - is the import gas volume delivered to NTS by TSO at `k` entry point;

PCS_k - is the determined gross calorific power afferent to `k` import entry point.

- $E_{DEP}^{EXTR-OST}$ - the energy of gas delivered to NTS by TSO, at all entry/exit points of the storage facilities included in the withdrawal cycle.

This element has two components, respectively:

$$E_{DEP.}^{EXTR-OST} = E_{DEP}^{SURSA_{EXTR}-OST} + E_{DEP}^{ECH_{EXTR.}-OST} \quad (20)$$

where:

$E_{DEP}^{SURSA_{EXTR.}-OST}$ - the energy of gas delivered to NTS by TSO under source mode, at all entry/exit points of the storage facilities included in the withdrawal cycle.

For a number $l = \overline{1, p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP}^{SURSA_{EXTR}-OST}$ component shall be calculated using the following formula:

$$E_{DEP}^{SURSA_{EXTR}-OST} = \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{SURSA_{EXTR.}-OST} = \sum_{l=1}^{p_{DEP}} \left(V_{DEP_l}^{SURSA_{EXTR}-OST} \times PCS_l \right) \quad (20.1)$$

where:

$V_{DEP_l}^{SURSA_{EXTR.}-OST}$ - is the gas volume delivered to NTS by TSO under source mode, at `l` entry/exit point of the storage facilities included in the withdrawal cycle;

PCS_l - is the determined gross calorific power afferent to `l` storage facilities' entry/exit point.

$E_{DEP}^{ECH_{EXTR}-OST}$ - the energy of gas delivered to NTS by TSO under balancing mode, at all entry/exit points of the storage facilities included in the withdrawal cycle.

For a number $l = \overline{1, p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP.}^{ECH_{EXTR.}-OST}$ component shall be calculated using the following formula:

$$E_{DEP}^{ECH_{EXTR.}-OST} = \sum_{l=1}^{p_{DEP}} E_{DEP_l}^{ECH_{EXTR.}-OST} = \sum_{l=1}^{p_{DEP}} \left(V_{DEP_l}^{ECH_{EXTR.}-OST} \times PCS_l \right) \quad (20.2)$$

where:

$V_{DEP_l}^{ECH_{EXTR}-OST}$ - is the gas volume delivered to NTS by TSO under balancing mode, at `l` entry/exit point of the storage facilities included in the withdrawal cycle;

PCS_l - is the determined gross calorific power afferent to `l` storage facilities' entry/exit point.

- E_{CER}^{OST} - NTS residual balancing component – representing the algebraic sum, but with changed mark, of the imbalances generated by all NU, respectively the gas quantity – expressed as energy units – delivered or taken off to/from NTS by TSO in order to keep the NTS balance.

The E_{CER}^{OST} element represents the actual result of TSO (17) balancing equation.

For a number $i = \overline{1,n}$ of NU, E_{CER}^{OST} component shall be calculated using the following formula:

$$E_{CER}^{OST} = \sum_{i=1}^{n} E_{CD}^{UR_i} \qquad (21)$$

where: $E_{CD}^{UR_i}$ - is the imbalance component of NU `i`; this component was explained in NU `i` balancing equation.

The E_{CER}^{OST} element's value may be:

- zero – indicating that all NUs have kept their client portfolio balance which impacts the maintenance of NTS general balance; in this case, TSO shall not be forced to proceed to NTS residual balancing;

- negative – indicating the existence of a gas deficit in NTS, deficit which TSO must cover by delivering to NTS the quantity resulted following the application of formula (21);

- positive - indicating the existence of a gas excess in NTS, excess which TSO must eliminate by taking off from NTS the quantity resulted following the application of formula (21).

- E_{CTL-D} - the gas energy afferent to the located – determined technological consumptions – this wording was explained in NTS general balancing equation.
- E_{CTN-E} - the gas energy afferent to the non-located – estimated technological consumptions – this wording was explained in NTS general balancing equation.

- $\Delta E_{STOCCOND}$ - the energy fluctuation of NTS line-pack gas – this wording was explained in NTS general balancing equation.
- $E_{DEP}^{SURSA_{INJ}-OST}$ - the energy of gas taken off by TSO from NTS under source mode, at all entry/exit points of the storage facilities included in the injection cycle.

For a number $l=\overline{1,p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP}^{SURSA_{INJ}-OST}$ component shall be calculated using the following formula:

$$E_{DEP}^{SURSA_{INJ}-OST}=\sum_{l=1}^{p_{DEP}}E_{DEP_l}^{SURSA_{INJ}-OST}=\sum_{l=1}^{p_{DEP}}\left(V_{DEP_l}^{SURSA_{INJ}-OST}\times PCS_l\right) \quad (22)$$

where:

$V_{DEP_l}^{SURSA_{INJ}-OST}$ - is the gas volume taken off by TSO from NTS under source mode, at `l` entry/exit point of the storage facilities included in the injection cycle;

PCS_l - is the determined gross calorific power afferent to `l` storage facilities' entry/exit point.

- $E_{DEP}^{ECH_{INJ}-OST}$ - the energy of gas taken off by TSO from NTS under balancing mode, at all entry/exit points of the storage facilities included in the injection cycle.

For a number $l=\overline{1,p_{DEP}}$ of storage facilities' entry/exit points, $E_{DEP}^{ECH_{INJ}-OST}$ component shall be calculated using the following formula:

$$E_{DEP}^{ECH_{INJ}-OST}=\sum_{l=1}^{p_{DEP}}E_{DEP_l}^{ECH_{INJ}-OST}=\sum_{l=1}^{p_{DEP}}\left(V_{DEP_l}^{ECH_{INJ}-OST}\times PCS_l\right) \quad (23)$$

where:

$V_{DEP_l}^{ECH_{INJ}-OST}$ - is the gas volume taken off by TSO from NTS under balancing mode, at `l` entry/exit point of the storage facilities included in the injection cycle;

PCS_l - is the determined gross calorific value related to `l` storage facilities' entry/exit point.

A. Abrogated

Art.86. – (1) The daily imbalance is the difference between the gas quantities actually delivered at the NTS entry points and the gas quantities actually taken over at the NTS exit points by each NU separately, on a certain gas day, taking also into account the trades notified at the VTP and confirmed by the TSO.

(2)The daily imbalance, expressed in energy units, is calculated for each NU by using the balance equations established in this section, as well as the following formula:

$$DI = A_i + T_C – T_V – A_e, \text{ where:}$$

DI – daily imbalance;

A_i – allocation at the entry points where the NU booked capacity;

A_e – allocation at the exit points where the NU booked capacity;

T_C, T_V – have the meaning established at Art. 52, paragraph (3).

Art. 86[1]. – (1) By 2.15 p.m. of each gas day D, the TSO calculates:

a) the initial daily imbalance for the gas day D-1 for each NU using the initial allocations for gas day D-1;

b) the total NTS imbalance and its direction "positive" or "negative"

(2) By 2.30 p.m., at the latest, of each gas day D, the TSO notifies the NU of the initial daily imbalance registered for gas day D-1 and the gross calorific value and publishes on its website the information provided for at para. (1)

(b), the weighted average price determined according to the provisions of art. 102^1 related to gas day D-1 and the prices contemplated in art. 102^2 para. (1) (a) and (b) and para. (2) (a) and (b).

(2^1) During 1 May 2019-30 September 2019, until 7:00 a.m of the day D+1, the NU sends to the TSO, in line with the provisions of art 37 para (1) and (2) the initial daily imbalance notified according to para (2), split by CC, PET and CN.

(2^2) During 1 May 2019-30 September 2019, in the time span 07:00-01:30 p.m of the day D+1, the TSO processes the information sent by the NU in line with para. (2^1) and records them in view of trading on the balancing market or sends them to the operator appointed to ensure the compliance with the obligations to organize and manage the balancing market.

(3) The initial daily imbalance represents the daily imbalance registered before the opening of the balancing market.

Art. 86^2 Gas Balancing Market

(1) The TSO organizes and manages the gas balancing market or he may enter into an agreement with a third party in accordance with the provisions of Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a network code for balancing gas transmission networks to perform these tasks for the TSO. In the event that the TSO will conclude an agreement to this end, it will notify in writing the participants about the identity of the designated operator to ensure the fulfillment of the obligations of organizing and managing the natural gas market, which will conclude with the participants within 5 days from the date of receiving this notification the Convention provided for in the annex to the Balancing and VTP Access Agreement.

(1^1) The responsibility for the organisation and the management of the BM rests entirely with the TSO

(2) The balancing market is the organized framework for trading gas quantities from the domestic production for the consumption of the CC and/or PET within the delivery day or on the following gas day, and initial daily imbalance

of CC or PET type of the NU for its commercial balancing, performed by the TSO/third party appointed by the TSO, based on the Trading procedure on the gas balancing market established in Annex no. 1^4.

The trade offer price shall be broken down as follows:

a) the price of gas, without included services, which cannot exceed 68 lei/MWh;

b) the cost of the included services, in lei/MWh, comprising the cost of the transmission services, the cost of the underground storage services and the financing costs, as applicable.

(2^1) The TSO makes available to the NU the trading platform related to the gas balancing market meant for transactions with within day or day ahead products until 01 May 2019.

(4) The TSO does not record gains or losses following the charging of tariffs for the organisation and management of the gas balancing market.

(5) The tariffs for managing/trading set based on a methodology prepared by the TSO and endorsed by the BA are transparent and non-discriminatory. The Methodology prepared is conceived so as to ensure the recovery of the underlied costs and performed in a prudent manner by the TSO for the managing/trading activities of the BM.

B. Abrogated

Art.87. Abrogated

C. Abrogated

Art. 88. – (1) Within maximum 45 minutes from the closing of the balancing market on day D, the TSO notifies the NU of its final imbalance on gas day D-1.

(2) The final daily imbalance is calculated by the TSO by taking into account the amounts traded on the EP.

(3) By derogation from the provisions of paragraph (2), between 1 May 2019-28 February 2022, the final daily imbalance of CC or PET type shall be calculated by the TSO considering the quantities traded on the BM; the initial daily imbalance of the NC type shall become final daily imbalance.

Table 1 – Abrogated

Art. 89. – (1) Following calculation of the final daily imbalance for each NU according to Art. 88, the NUs may be in one of the following situations:

a) surplus: if the difference between the NTS gas inputs and the NTS gas outputs is above zero;

b) deficit: if the difference between the NTS gas inputs and the NTS gas outputs is below zero.

(2) If the TSO establishes a `surplus` imbalance situation for the individual portfolio of a NU, the TSO shall pay to the NU the daily imbalance charge calculated according to Art. 102, based on the quantity of gas representing the registered imbalance.

(3) If the TSO establishes a `deficit` imbalance situation for the individual portfolio of a NU, such NU shall pay to the TSO the daily imbalance charge calculated according to Art. 102, based on the quantity of gas representing the registered imbalance.

(4) If the total imbalance of the NTS is a `surplus`, the quantity of gas representing the registered surplus is used by the TSO to meet its obligation under Art. 83^{2} (3) **.**

Art. 89^{1}.-Abrogated

Table 2 – Abrogated

Table 3 – Abrogated

Emergency supply service

Art.90. – The provisions of legal regulations concerning the emergency situations in the natural gas industry shall apply.

Force Majeure

Art.91. – The emergency supply situation shall not cover the Force Majeure.

Art.92. – The Force Majeure, force majeure event related rights and obligations of TSO and of NU shall be as provided for by the Civil Code.

Gas metering at NTS entry/exit points

Art.93. – (1) Gas metering shall be performed according to CA regulations in force.

(2) Gas metering systems at NTS entry/exit points shall be operated according to the provisions of `*Technical requirements regarding the operation of gas quantity metering points at NTS entry/exit*` established by Annex no 9.

(3) The complaints regarding gas metering shall be settled according to the provisions of CA regulations and on the deadlines established by the applicable performance standard in force.

Art.94. – The minimum requirements related to gas quality are specified by the technical regulations drawn up by the CA.

CAP. V MANAGEMENT OF TRANSMISSION CONTRACTS

Art.95. – The tariffs afferent to NTS use shall be annually substantiated by TSO and established by the CA.

Art.96. – (1) TSO shall constantly publish on its webpage, the tariffs afferent to NTS use.

(2) The tariffs shall be updated with, at least, 30 days prior to the beginning of the capacity booking period.

NTS transmission tariff

Art.97. – NU shall pay to TSO an amount corresponding to the transmission services value, according to the contracting provisions.

Art.98. Abrogated

Tariff for exceeding the booked capacity

Art. 99. – For each gas day and for each NTS entry/exit point where NU exceeded the capacity booked, such NU shall pay to the TSO a tariff for exceeding the booked capacity (TDCR) calculated as follows:

$$TDCR = RCf \times (C_{UTL} - C_{REZ}), \text{ where:}$$

RCf – fixed capacity booking component of the tariff for the firm transmission service per day (RON/MWh/h);

C_{UTL} – total capacities actually used for the same type of NTS entry/exit points (MWh/day);

C_{REZ} – total capacities booked by the NU for the same type of NTS entry/exit points (MWh/day).

Table 4 – Abrogated

Art.100. Abrogated

Tariff for not ensuring the booked capacity

Art. 101. – (1) The TSO shall pay to the NU a tariff for not providing the booked capacity.

(2) It is considered that the TSO does not ensure the booked capacity when it applies a capacity limitation/interruption without complying, from its exclusive fault, with the obligations under the transmission contract or Network Code.

(3) The tariff for not providing the booked capacity shall be calculated for each gas day and each type of NTS entry/exit points where the TSO did not provide the capacity booked by the NU, by the formula:

$$TNCR = RCf \times (C_{REZ} - C_{ASG}), \text{ where:}$$

RCf – fixed capacity booking component of the tariff for the firm transmission service per day (RON/MWh/h);

C_{REZ} – total capacities booked by the NU for the same type of NTS entry/exit points (MWh/day);

C_{ASG} – total capacities actually provided by the TSO for the same type of NTS entry/exit points (MWh/day).

Table 5 Abrogated

Table 6 – Abrogated

Daily imbalance tariff

Art.102. – The daily imbalance tariff (DIT) is calculated by multiplying the final daily imbalance (Q) determined in accordance with Art. 88, with the marginal selling price or the marginal purchasing price, as appropriate, determined in line with Art. 102^2.

Table 7 – Abrogated

Art. 102^1 - In the order of precedence below the average weighted price is equal to:

a) the average price of the trading day, weighted by the traded quantities, related to the within-day products traded within the short - term standardized products markets managed by the operators of the centralized Romanian markets for the gas delivery at the VTP on a section of the gas day for which the final daily imbalances were determined or when such price is missing, by:

b) the average price of the trading day, weighted by the traded quantities, related to the day-ahead products traded within the short - term standardized products markets managed by the operators of the Romanian

centralized markets for the gas delivery at the VTP over the entire gas day for which the final daily imbalances were determined or when such price is missing, by:

c) the most recent average price of the trading day, weighted by the traded quantities, related to the within-day products traded within the short - term standardized products markets managed by the operators of the Romanian centralized markets, published by the latter, registered in the 6 (six) trading days prior to the gas day for which the final daily imbalances were determined or when such price is missing, by:

d) the most recent average price, weighted by the traded quantities of the trading day, related to the day-ahead products, traded within the short - term standardized products markets managed by the operators of the Romanian centralized markets, published by the latter, registered in the 6 (six) trading days prior to the gas day for which the final daily imbalances were determined or when such price is missing, by:

e) the most recent updated average price, calculated by the operators of the Romanian centralized gas markets for the weekly products traded within the medium and long term standardized products markets for the gas delivery at the VTP in the week including the gas day for which the final daily imbalances were determined or when such price is missing, by:

f) the price of 1 leu/MWh, applicable to the NUs who registered `surplus` imbalances on the gas day for which the final daily imbalances were determined, and the price of 500 lei/MWh, applicable to the NUs who registered `deficit` imbalances on the gas day for which the final daily imbalances were determined.

Art. 102[2]. – (1) The marginal selling price is equal to the lesser value of:

a) the lowest price related to the sales transactions conducted by the TSO within the short-term standardized product markets managed by the centralized Romanian market operators for the gas day for which the final daily imbalances were determined; or

b) the price of the balancing services purchased by the TSO for the physical balancing of the NTS in "Positive imbalance" type situations and used by the TSO in the gas day for which the final daily imbalances were determined, or

c) the average weighted price related to the gas day for which the final daily imbalances were determined, set in line with the provisions of art 102[1], less the correction component, representing 10%.

(1[1]) abrogated.

(2) The marginal purchasing price is equal to the higher value of:

a) the highest price related to the purchasing transactions conducted by the TSO wihin the short-term standardized product markets managed by the centralized Romanian market operators for the gas day for which the final daily imbalances were determined; or

b) the price of the balancing services purchased by the TSO for the physical balancing of the NTS in "Negative imbalance" type situations and used by the TSO in the gas day for which the final daily imbalances were determined, or

c) the average weighted price related to the gas day for which the final daily imbalances were determined, set in line with the provisions of art 102[1], less the correction component, representing 10%.

(2^1) abrogated.

Art. 102[3]. Abrogated

Art. 102[4]. Abrogated

Art. 102[5]. Abrogated

Art. 102[6]. – (1) All expense and income related to the balancing activities shall be recorded separately in the accounting records of the TSO.

(2) The TSO shall transfer to the NU all expense and income resulting from the balancing activities. The difference between the generated expense and income shall be allocated to the NU on a quarterly basis.

(3) The difference between the expense and income resulting from the balancing activities shall be allocated to the NU according to the methodology prepared by the TSO and approved by ANRE.

(4) The first allocation to the NU of the differences between the expense and income resulting from the balancing activities shall be performed after the approval of the methodology at paragraph (3).

(5) The value of the expense and income resulting from the balancing activities shall be published by the TSO on its website, according to the ANRE regulations.

Art.103. Abrogated

Table 8 – Abrogated

Table 9 – Abrogated

Art. 104. – (1) The imbalance tariffs determined in line with the provisions of art. 102, 102[1] and 102[2], as well as the value of the imbalances calculated based on such tariffs will be communicated to each NU, in the operational platform, by the TSO, both daily and in the month following the delivery month.

Invoicing

Art. 105. – (1) During the administration of the transmission contracts, the TSO shall issue and send to the NU until the 15th day of the month following the month for which it provided the transmission service:

a) the invoice for the transmission services provided for the previous month, based on the final allocation;
b) the invoice for the final daily imbalance as "Negative imbalance" recorded in the previous month, the value of which was calculated according to the provisions of Art.102^4;
c) the invoice for the tariff for exceeding the capacity booked, calculated according to Art. 99 and/or the tariff for non-providing the capacity booked, calculated according to Art. 101, as appropriate.

(2) As of 1 April 2016, the invoice at paragraph (1) b) shall also include the value of the final daily imbalance for the previous month, calculated according to the methodology at Art. 102^1, 102^3 and 102^5.

(3) The TSO is entitled to issue a pro forma invoice representing the estimated value of the service provided to the NU in the relevant month, not later than the 15th day of the gas month.

Disputing the invoices

Art.106. – (1) The procedure established by this section shall be complied with in case of invoice disputing.

(2) In order to verify the invoice, based on a notification sent to TSO, NU shall be entitled to access the data/documents substantiating the invoice issuance.

(3) If during these data/documents review errors are discovered in the invoice or the calculation method, such errors shall be immediately rectified and the afferent adjustments shall be performed.

(4) All data/documents substantiating the invoice issuance shall be kept for a period of 5 years. The data/documents subjected to disputes or court litigations shall be kept, at least, for a period of 1 year since the relevant dispute settlement.

Payment

Art.107. – (1) All payments made by NU shall be achieved by bank transfer to the account specified by TSO.

(2) All payments made by TSO shall be achieved by bank transfer to the account specified by NU.

(3) Each party may select another bank, provided that it sends to the other party a previous notification within at least 22 working days prior to the payment due date.

(4) The payment shall be deemed as made on time if the amount is transferred to the bank until 11.00 a.m. on the payment due date, the latest. All costs related to money transfer to the bank selected by either party shall be covered by the transferring party.

ANNEX no. 1

(to the Network Code for

The National Gas Transmission System - NTS)

Gas transmission CONTRACT

related to the entry points into the NTS (National Transmission System)

no. … of year…… month …… day …….

The National Gas Transmission Company TRANSGAZ - S.A. Mediaş, headquartered in Mediaş, 1, Constantin I. Motaş Square, Sibiu county, post code 551130, telephone 0269/803333, fax 0269/839029, fiscal registration code RO13068733, registerea in the Trade Register under no. J 32/301/2000, holder of the account no. RO79RNCB0231019525310002, opened at the bank B.C.R. - Mediaş Subsidiary, legally represented by the Director General, Mr. Ion Sterian, in the capacity of provider of the transmission service, hereinafter referred to as the transmission system operator or TSO, on the one hand,

and

in the capacity of user of the National Transmission System (NTS) and beneficiary of the transmission services, hereinafter referred to as the network user or NU, on the other hand,

agreed to conclude the present transmission contract related to the NTS entry points, hereinafter referred to as the Contract.

I. Terminology and applicable legislation

ART. 1

(1) The terms used in the present contract are defined in the Energy and Gas Law no. 123/2012, as subsequently amended and supplemented, as well as in the Network Code for the National Gas

Transmission System, approved by the Order of the President of the Romanian National Energy Regulatory Authority (ANRE) no. 16/2013, as subsequently amended and supplemented (the Network Code).

(2) The provisions of this contract are complemented by the provisions of Law no. 287/2009 regarding the Civil Code, republished, as subsequently amended (the Civil Code), the Energy and Gas Law no. 123/2012, as subsequently amended and supplemented, and the ANRE regulations, including the provisions of the Network Code and the Technical Conditions for the operation of the metering points of the gas quantities the entry/exit to/from the NTS, hereinafter referred to as the „Technical Conditions", as well as any other legal regulations in force. For all situations not explicitly provided for in this contract, the Network Code provisions are applicable.

II. - Scope of the contract

ART. 2

(1) The scope of this contract is the provision of natural gas transmission services, including the whole range of activities and operations carried out by the TSO for or in connection with transmission capacity booking at the NTS entry points.

(2) The contract entitles the NU to nominate/re-nominate/introduce into the NTS, at the entry points, gas quantities within the limit of the booked capacity.

(3) Through this contract the NU is entitled to use the booked capacity at the NTS entry points for the introduction of gas into the NTS for trading with notification in the VTP and/or transmitted at the exit points from the NTS, based on the transmission contract for the exit points from the NTS.

(4) The capacity booked at the entry points into the NTS is provided for in Annex no. 2 to this contract and is expressed in MWh/day.

(5) The application of the tariff for the capacity exceeding and of the tariff for non-ensuring the booked capacity shall be made in accordance with the provisions of the Network Code and of the applicable ANRE regulations.

III. – Duration of the contract

ART. 3

The present contract is concluded for..... (one gas year, one quarter, multiple quarters, one month, multiple months, daily, multiple days) in the time frame ..... .

IV. Conditions of ensuring the firm capacities at the NTS entry points from the underground storage facilities.

ART. 4

The TSO, acting correctly and prudently, shall provide the firm transmission capacity booked by the NU at the NTS entry points from the underground storage facilities, throughout the contract duration.

V. The gas metering of natural gas at the point of entry into the NTS

ART. 5

The measurement of the quantities of natural gas is carried out continuously according to the provisions of the specific legislation, the determination of the quantities of energy entering the NTS taking place in accordance with the provisions of the Network Code.

VI. Applicable tariffs, invoicing and payment modalities and conditions

Art.6

(1) The NU shall pay the TSO the value of the transmission capacity booked, calculated based on the capacity booking tariff applicable at the moment when the booked capacity may be used.

(2) The TSO shall pay the NU the value of the transmission capacity not provided, calculated based on the capacity non-provision tariff applicable at the moment when the NU could not use the booked capacity.

(3) The NU shall pay the transmission system operator additionally, as applicable, the tariffs established under the Network Code.

(4) The tariffs referred to in paragraphs (1) and (2) are set out in Annex 1 to the Contract.

(5) Until the 15th day of the month following the month for which the transmission service was provided, the TSO shall sent the NU separate invoices (hereinafter referred to as `monthly invoices`), as follows:

a) an invoice for the transmission services provided for the previous month;
b) an invoice for the booked capacity exceeding tariff value, calculated in accordance with Art. 99 of the Network Code, and/or for the tariff value for not providing the capacity booked, calculated in accordance with Art. 101 of the Network Code, if applicable;
c) an invoice for the amount of the additional capacity, calculated according to Art. 51 of the Network Code, resulting after the nomination by the NU of a gas quantity exceeding the NU capacity booked at a NTS entry point.

(6) If the NU choses to make an advance payment, the TSO shall issue and send the NU an advance payment invoice the value of which is equal to the value of the capacity booked, calculated for the service provision month, at least 5 calendar days before the prior to the start date of each month of services provision.

ART. 7

(1) Invoices issued according to Art. 6 (5) shall be paid within 15 calendar days from the date of issuance. If the due date is not a business day, the deadline is set on the next business day.

(2) Invoices issued according to Art. 6 (6) shall be paid until the transmission service start date, according to the advance payment invoice issued in this respect.

VII. Invoicing and payment modalities and conditions for the daily transmission contracts[1].

ART. 8

(1) Prior to the beginning of the provision of the transmission services, the TSO issues an invoice, representing an advance, issued for the equivalent of the booked capacity for which the natural gas transmission services are provided.

(2) The payment of the value of the invoice issued in accordance with paragraph (1) shall be made prior to the commencement of the provision of the transmission services.

ART. 9

The payment obligation is deemed to be fulfilled on the date of entry of the respective total amounts into the account of the transmission system operator.

[1] This clause applies only to daily transmission contracts.

VIII. Rights and obligations of the TSO

ART. 10

The TSO has the following rights:

a) to collect from the NU the value of the services rendered and the late payment penalties;
b) to execute the financial payment guarantee provided by the NU in the event of failure to pay at maturity of the invoices issued;
c) to limit/interrupt the provision of transmission services, with prior notice, in the event of non-fulfilment of the payment obligations within the terms and under the terms and conditions stipulated in the present contract;
d) to interrupt the provision of transmission services, if the NU does not comply with the provisions of the Network Code;
e) to refuse to take into the NTS natural gas which does not comply with the minimum quality conditions stipulated in the Technical Conditions;
f) to invoice the NU the value of the services provided, in compliance with the tariffs stipulated in the present contract, and, if necessary, the late payment penalties;
g) to limit or interrupt the provision of transmission services in order to remedy the damage occurring in the NTS, informing the NU within maximum 6 hours after the TSO has been informed;

h) to limit the provision of transmission services to the level of the approved nomination, if the total energy take-over is higher than this nomination;

i) to limit or discontinue the provision of the firm transmission services, if the NU does not comply with the provisions of Chapter X "Guarantees";

j) all the other rights as provided for in the Network Code.

ART. 11

The TSO has the following obligations:

a) to notify the NU of possible limitations/disruptions in the provision of transmission services in the event of non-fulfilment of the payment obligations;

b) to resume the provision of the transmission services within 24 hours from the date of fulfilment of the payment obligations;

c) to take over, transport and deliver to the NU the quantities of energy, with the observance of the conditions laid down in the bilateral conventions concluded according to art. 46 paragraph (6) of the Network Code and in accordance with approved nominations/re-nominations;

d) to allow the NU access to the data/documents at underlying the issuance of the invoice in case the NU contests the invoice issued;

e) to make available to the NU the capacity booked at the NTS entry points according to the contracted levels;

f) to pay to the NU the tariff for non-ensuring the firm booked capacity;

g) to answer and resolve the notifications of the NU concerning the provision of transmission services under the conditions provided for by the legislation in force;

h) all the other obligations as set out in the Network Code.

IX. Rights and obligations of the NU

ART. 12

The NU has the following rights:

a) to use the capacity booked at the entry point into the NTS for the introduction of gas into the NTS in view of the trading by VTP notification and/or the transmission at the NTS exit points on the basis of the transmission contract related to the NTS exit points;
b) to return voluntarily or to transfer the approved capacity in accordance with the provisions of the Network Code;
c) to transfer quantities of natural gas in accordance with the provisions of the Network Code;
d) to request and receive from the TSO the corresponding amounts for the non-provision of the booked capacity in accordance with the provisions of the Network Code, calculated on the basis of the tariff for non-provision of the booked firm capacity;
e) to challenge the invoices issued by the TSO and to request the access to the data/documents underlying the issuance of the invoice;
f) all the other rights as provided for in the Network Code.

ART. 13

The NU has the following obligations:

a) to pay in full and in due time the invoices issued by the TSO in accordance with the provisions of the present contract and, where applicable, the related late payments;

b) to accept the limitation/interruption of the transmission service under the conditions stipulated in the present contract;

c) to establish accurately the guarantees provided for in this contract;

d) to announce the TSO, by means of the nomination/re-nomination, about the designated partner and, respectively, the corresponding amounts of energy;

e) to take all necessary measures, through suppliers and system operators, to comply with the supply of energy to its customers, including to interruptible customers, in compliance with the laws in force;

f) to deliver the natural gas at the entry into the NTS in compliance with the natural gas quality conditions provided for in the Technical Conditions;

g) all the other obligations as set out in the Network Code.

X. Guarantees

A. General provisions

ART. 14

(1) For the purpose of fulfilling their obligations under the Contract, either Party shall establish a guarantee for the other Party in accordance with the Network Code.

(2) For fulfilling the obligation under paragraph (1), the TSO shall provide the credit rating.

(3) The NU is exempted from the obligation to provide the payment guarantee to the TSO conditional on:

a) the proof of a credit rating issued by one of the rating agencies agreed by the TSO or at least at the same level as that of the TSO, valid for the duration of the Contract;

b) pays the transmission services in advance.

(4) If, during validity of this Contract, either the NU rating or the agency agreed by the TSO changes, the NU shall notify the TSO within 3 working days from the change and shall prove the fulfillment of its guarantee obligations under this Chapter no later than 5 working days from the change.

ART. 15

(1) The payment guarantee shall be submitted by the NU as:

a) a letter of bank guarantee in lei or the euro equivalent at the Central European Bank exchange rate on the guarantee issuing date (according to Annex 4) and/or

b) a guaranteed account (collateral deposit) in lei or the euro equivalent at the Central European Bank exchange rate on the guarantee issuing date and/or

c) an escrow account in lei or the euro equivalent at the Central European Bank exchange rate on the guarantee issuing date.

(2) The TSO shall accept the letter of bank guarantee issued by a bank having a rating issued one of the following rating agencies: Standard&Poors, Moody's or Fitch, at least at the `investment grade` level. The equivalence between the ratings of the three agencies is published on the TSO`s website.

ART. 16

(1) If the NU proves the creditworthiness according to Art. 14 (3) (a), the TSO may, in certain justified cases, request the provision of a financial guarantee in accordance with Art. 15 or the advance payment of the payment obligations arising from the commercial relationship with the NU. The request for a guarantee or advance payment shall be made and explained in writing.

(2) For the transmission services, a justified case is considered the situation when the NU has a delayed payment for an amount of at least 10% of the value of the last invoice or of the amount of the partial payment obligations after having received a notification from the TSO in this respect.

B. Yearly and quaterly product

ART. 17

(1) The NU shall submit to the TSO the financial guarantee according to (2) at least 5 working days before the start of the transmission service.

(2) The level of the financial guarantee provided by the NU shall be equal to the average value of the estimated monthly invoices for the transmission services for the following period of use.

(3) The financial guarantee established in accordance with (2) shall be valid starting from the bank day preceding the transmission service commencement date and shall cease on the 60th calendar day following the expiry date of the Contract.

(4) The NU may waive the option of establishing a transmission service guarantee by making advance payments. In this respect, the NU shall notify the advance payment option the TSO in writing, within 7 working days after the end of the booking period.

(5) The advance payment amount shall be equal to the monthly invoice amount for the transmission services for the following period of use.

(6) The advance payment/advance payment invoice shall be compensated with the settlement invoice of the month for which the payment was made.

(7) If such advance payment does not cover the value of the settlement invoice for the respective month, the difference shall be paid by the NU on the invoice due date.

(8) The NU may waive the advance payment option, subject to the provision of a financial guarantee according to Art. 14 (3) or Art.15.

C. Monthly product

ART. 18

(1) The NU has the obligation to submit to the TSO the payment financial guarantee in the amount provided for in paragraph (2) at least 3 working days before the start of the transmission service period.

(2) The level of the financial guarantee provided by the NU shall be equal to the estimated monthly invoice for the transmission services for the following period of use.

(3) The payment financial guarantee established in accordance with para. (2) shall be valid from the banking day preceding the date of commencement of the provision of the transmission service and shall cease to be valid on the 60th calendar day following the termination of the contract by its due date.

(4) The NU may waive the option of establishing a guarantee for the provision of the transmission service by making advance payments. In this respect, the NU shall, within a maximum of two working days from the date of the end of the capacity booking period, notify the TSO, in writing, of the advance payment option.

(5) The advance payment amount is equal to the monthly invoice for the transmission services for the next period of use.

(6) The advance payment/invoice are compensated with the settlement invoice for the month for which the payment was made.

(7) If the advance payment in question does not cover the value of the settlement invoice for that month, the difference shall be paid by the NU on the due date of the invoice.

D. Daily product

ART. 19

For the daily product, the payment is made in advance, within 24 hours from the acceptance and signing of the transmission contract and before the start of the provision of the transmission services according to art. 7.

ART. 20

(1) The payment guarantee issued according to Art. 17 (1) shall be valid starting from the bank day preceding the transmission service commencement date and shall cease on the 60th calendar day following the expiry date of the Contract.

(2) If the level of the financial guarantee:

a) decreases by more than 5% below the level specified in Art. 17 (2), the NU shall supplement the financial guarantee accordingly;

b) is more than 5% above the level specified in Art. 17 (2), the TSO shall return to the NU the difference between the actual level of the guarantee and the one specified in Art. 17 (2).

(3) The payment guarantee shall be adjusted within no more than 5 working days from the date of recording of the diminishing/increasing as compared to the level specified in Art. 17 (2).

(4) The TSO shall be entitled to make claims against the guarantee under this Article within the limits of the damage incurred, unless the NU fulfills its contract obligations completely or partly or if it delays fulfilling such obligations.

(5) Prior to making any claim against such guarantee, the TSO shall notify the NU on the non-fulfilled obligations.

(6) The TSO shall send the guarantee execution notification by fax within 24 hours from the expiration of the period set at Art.23 (1) (a).

(7) If the guarantee is executed partly or completely, the NU shall re-establish the guarantee within 5 days from execution.

XI. Transmission programme

ART. 21

(1) The transmission program will be transmitted directly to the informational platform in accordance with the provisions of art. 27 letter B of the Network Code and will be set out in Annex no. 3 to this contract.

(2) The transmission program may be modified in accordance with the procedure laid down in the Network Code.

(3) The parties have the obligation to observe the minimum/maximum pressure at the NTS entry points, as provided for in the bilateral conventions concluded according to the provisions of the Network Code.

XII. Confidentiality Clause

ART. 22

(1) The parties are required to keep confidential the data, documents and information obtained from the performance of the contract.

(2) The following data, documents and items of information are exempted from the provisions of para. (1):
– those that may be disclosed in accordance with the Network Code;

- those for whose disclosure the written agreement of the other Contracting Party has been obtained;
- those required by the competent state bodies, based on a legal obligation of information.

(3) The provisions of this article shall remain in force for a period of five years after the termination of the contractual relations.

XIII. Contractual liability

ART. 23.

(1) Failure to meet the invoice payment obligation as stipulated at Art. 7 (1) shall incur:

a) delay penalties related to the unpaid amount, equal to the delay interest due for failure to pay the budgetary obligations in due time, for each day of delay, starting with the 16th calendar day from the invoice issuing date until its full payment, the payment date included, or until the execution of the guarantee stipulated by the contract, in case of failure to meet the payment obligation within 15 calendar days from the maturity date;

b) in case of failure to meet the payment obligation, the limitation/interruption of the gas transmission service, with a prior notice of 3 calendar days, starting with the day following the period of 15 calendar days foreseen at letter a);

c) the limitation/interruption of the gas transmission service, with a prior notice of 3 calendar days, starting with the day following the day when the sum of the Nu imbalances exceeds the value of the balancing guarantees.

(2) If the due date or the day following the warranty expiration date is a bank holiday, the terms foreseen at paragraph (1) shall be shifted accordingly.

ART. 24

If, upon TSO`s request, the NU does not voluntarily return/does not use the booked and not used capacity transfer facility, thus the mandatory capacity transfer being applied, NU shall pay 5% of the transferred capacity for the period between the date of mandatory capacity transfer and the date of Contract expiry.

ART. 25

(1) The NU shall be entitled to request and receive an amount established based on the tariff for not ensuring the booked capacity, according to the Network Code, in case TSO does not keep at NU's disposal the entire transmission capacity booked by the latter;

(2) If the amount in paragraph (1) does not cover the entire prejudice incurred, NU shall be entitled to request and receive damages, additionally, up to full coverage of the prejudice incurred when TSO does not meet its gas transmission services obligation as well as any other obligations established by this Contract.

XIV. Force majeure / Fortuitous case

ART. 26

(1) Force majeure is that external, unpredictable, absolutely invincible and inevitable event that exonerates the parties from liability, under the conditions of art. 1.351 of the Civil Code.

(2) If the force majeure event does not cease within 30 calendar days, the parties have the right to request the termination of the contract, without any of them having the right to claim compensatory damages.

(3) The party invoking force majeure has the obligation to notify the other party, in writing, by notice within maximum 5 days from its occurrence, and proof of force majeure shall be communicated within 30 days of its occurrence.

ART. 27

(1) The fortuitous case is an event that cannot be predicted or prevented by the party that would have been made liable if the event had not occurred.

(2) Parties are relieved of liability when the performance of an obligation has become impossible due to circumstances that are not attributable to the party that would have fulfilled it.

XV. Cancellation and termination of the contract

ART. 28

(1) The present contract is ceased and terminated:

a) by the execution of the contractual obligations;

b) upon the expiry of the contract duration;

c) ipso jure, in case of failure to meet one of the requirements regarding the access to the NTS transmission services, according to the Network Code, including in case of termination of the balancing and VTP access contract concluded between the TSO and the NU;

d) in case of voluntary return of the total approved capacity in accordance with the Network Code;

e) in the case of mandatory transfer of the total capacity approved under the conditions of the Network Code;

f) by termination in case of bankruptcy, dissolution, liquidation or withdrawal of the license, as the case may be, of the contractual partner;

g) for force majeure, according to the contract.

(2) The termination of this contract has no effect on the contractual obligations arising from the performance of the contract until its termination.

(3) In the event of termination of the contract before the expiry of the term of validity, (1) lit. c) and f), the NU is obliged to pay the TSO the value of the contracted capacity products for the remaining period until the expiration of the contract validity period.

XVI. Notifications

ART. 29

(1) The parties are obligated to notify each other to the headquarters provided in the introductory part of this contract of any change in the circumstances envisaged at the date of signature of this contract.
(2) The deadline for notification shall be no more than 5 calendar days from the date of the change of circumstances, unless otherwise specified in this contract.
(3) The notification means shall be determined by the Parties by mutual agreement, in accordance with the provisions of the Network Code.

XVII. Applicable legislation and dispute settlement

ART. 30

(1) The provisions of this contract are subject to and are interpreted in accordance with the Romanian legislation in force.

(2) The parties agree that all misunderstandings regarding the validity, interpretation, execution and termination of the contract shall be settled amicably. If the disputes are not settled amicably, they will be settled by the competent courts of law.

XVIII. Contract assignment

ART. 31

(1) Neither party may in any way, in whole or in part, give to a third party any rights and/or obligations arising from this Contract except with the written consent of the other Party that cannot be unduly refused.
(2) The notification of the intention to assign is forwarded to the other party at least 10 working days prior to the planned assignment.
(3) The notified party shall be obliged to respond reasonably within a maximum of 5 working days from the date of registration of the notification.

XIX. Other clauses

ART. 32

(1) This contract may be amended or supplemented by an addendum in written form.
(2) By way of exception to the provisions of para. (1), this contract shall be automatically amended or supplemented with any modification or addition applicable to the gas transmission contract or to the TSO-NU

contractual relation, provided by a national or European regulatory act, each party having the obligation to take over the respective modifications/additions.

ART. 33

The following annexes are inherent parts of this agreement:

– Annex no. 1 – Tariffs for the provision of the transmission services;

– Annex no. 2 – Capacity booking at the NTS entry points;

– Annex no. 3 - Transmission programme;

– Annex no. 4 – Bank guarantee letter template.

The present contract was concluded today, on ....., in two original counterparts, and each party declares to have received an original copy thereof.

Transmission System Operator — Network User

SNTGN TRANSGAZ S.A.

ANNNEX no. 1[1]

(to the Network Code for the National gas transmission system)

FRAMEWORK – Gas Transmission CONTRACT concluded as a result of the procedure for incremental capacity booking within the national gas transmission system

The National Gas Transmission Company Transgaz S.A., headquartered in Mediaș, 1 C. I. Motas Square, Sibiu County, phone. 0269-803333, 0269-839031, e-mail cabinet@transgaz.ro, registered with the Trade Register under no. J32/301/2000, tax no. RO13068733, transfer account IBAN RO 09 RNCB 0231 0195 2531 0001, opened with B.C.R. Mediaș, as transmission service provider, hereinafter referred to as the "transmission system operator" or the "TSO", on one hand

and

the Network user, hereinafter referred to as NU, ... [to be filled with the name and identification data of the network user], as the beneficiary of the transmission service, on the other,

hereinafter referred to individually as "Party" and together as "Parties",

have agreed to conclude this gas transmission contract, as a result of the procedure for incremental capacity booking for the allocation of incremental capacity in the point ……..[To be filled, as appropriate, with „entry in" or „exit out".] The national gas transmission system in Romania (NTS) …….. [To be filled with the name of the point.].

CHAPTER I. Terminology; law and other applicable documents

Art. 1. (1) In the sense of this gas transmission contract, hereinafter referred to as contract, the following terms are defined as follows:

- confirmation date – the date of ..... [To be filled with the confirmation date provided in the incremental capacity process documentation.], up to which the NU has the right to terminate the contract unilaterally, in accordance with art. 8 letter e);

- start date – the date of ..... [To be filled in with the start date provided in the incremental capacity documentation.], from which the TSO will ensure all conditions of actual use of incremental capacity allocated to the NU.

(2) The terms used in the contract are defined in the Electricity and Gas Law no. 123/2012, as subsequently amended and supplemented, as well as in the Network Code for the National Gas Transmission System, approved by the Order of the President of the National Energy Regulatory Authority no. 16/2013, as subsequently amended and supplemented, hereinafter referred to as the Network Code.

(3) The provisions of this contract are supplemented by the provisions of the Civil Code, in the Electricity and Gas Law no. 123/2012, as subsequently amended and supplemented, from the regulations of the National Energy Regulatory Authority (ANRE), including the provisions of the Network Code.

CHAPTER II. Scope of contract

Art. 2. (1) The scope of the Contract, is the transmission capacity booking and the provision of firm gas transmission services in the point..... [To be filled, as appropriate, with „entry" or „exit".] NTS ……. [To be filled with the

name of the point.] as of..... [To be filled with the starting date provided in the documentation related to the incremental capacity process.].

(2) Where the point referred to in paragraph (1) is an exit point from the NTS, the scope of the contract stipulated in par. (1) shall be complemented by all activities and operations carried out by the TSO for or in connection with the transmission through the NTS of the gas quantities, expressed in energy units, up to that NTS exit point.

(3) The booked transmission capacity has the following characteristics:

- Point identification data (longitude/latitude):
- the town /administrative unit:
- Point type [Entry/Exit]:
- booked transmission capacity, expressed in MWh/day: ... [To be filled in with the booked transmission capacity in each year of the period provided for in art. 3 of the contract.].-

(4) If, in accordance with the specific procedure for carrying out the incremental capacity process, the TSO offers the NU additional incremental capacity and the NU accepts, then, the booked transmission capacity provided in art. 2 par. (3) will be amended accordingly by concluding an addendum to this contract.

CHAPTER III. Contract duration

Art. 3. The Contract is concluded for the period between …… [insert the starting date] and ……[insert the last day of the last gas year for which the capacity was allocated to the NU, but no more than 40 years and enters into force upon its execution by both Parties.

CHAPTER IV. Gas metering at the NTS entry/exit points.

Art. 4. (1) The gas quantities shall be metered and the quantities of energy entering and exiting the NTS through the interconnection point shall be determined in accordance with the regulations in force.

(2) The gas quantities circulated through the interconnection points shall comply with the minimum quality specifications established by the regulations in force.

CHAPTER V. Applicable tariffs. Payment and invoicing terms and conditions.

Art. 5. (1) The NU shall pay to the TSO the amount of the booked transmission capacity established based on the applicable capacity booking tariff on the date of the provision of the transmission service. In the situation provided by art. 2 par. (2), the NU shall additionally pay the TSO, as the case may be, the commodity tariff applicable at the time of the provision of the transmission service for the quantity of gas transmitted as determined on the basis of the final allocations.

(2) As applicable, the NU shall pay additionally to the TSO the tariffs under the Network Code. Invoices issued to this effect shall be paid within 15 calendar days from the invoice notification date. If the due date is a non-working day, such date is deemed achieved on the next working day.

(3) The firm gas transmission services provided shall be invoiced in lei based on the booked capacity, the number of days in the invoicing period and the natural gas quantities set based on the final allocations, in line with the provisions of the Network Code.

(4) The payment method, as well as the designation of the banks approved for carrying out the banking operations, shall be established by mutual agreement, in compliance with the legislation in force.

(5) Any amount payable under this contract shall be deemed to have been received when the creditor's account is credited with the appropriate amount.

CHAPTER VI. TSO`s rights and obligations

Art. 6. The TSO shall be entitled to:

a) receive the value of services provided and of the delay penalties;

b) execute the letter/letters of payment guarantee submitted by the NU according to chapter VIII „Guarrantees" herein in case of failure to pay the invoices issued until their maturity date;

c) limit or interrupt, as applicable, the transmission services, with a prior notice of 3 (three) calendar days, if the payment obligations are not fulfilled according to the terms and conditions hereof;

d) limit or to interrupt the firm transmission services, if the NU fails to comply with the provisions of Chapter VIII - `Guarantees`

e) limit or interrupt the transmission services, if the NU fails to comply with the provisions of the Network Code with a prior notice of 3 (three) calendar days sent to the NU before the limitation/interruption;

f) refuse to take over in the NTS the gas non-compliant with the minimum quality specifications established in the specific legislation;

g) invoice, the value of the `Deficit` imbalance of the NU, including the delay penalties, based on the provisions and tariffs under the Network Code;

h) invoice to the NU the value of the transmission services provided under the scope of the Contract, based on the capacity booking tariff applicable at the moment the booked capacity may be used, and, as applicable, of the commodity charge applicable for the period in which the booked capacity may be used for the amount of gas transmitted, including the delay penalties;

i) limit or interrupt, as appropriate, the firm transmission services for the execution of unplanned maintenance works, notifying the NU of such limitation or interruption within maximum 6 hours;

j) to limit or, as applicable, to interrupt the provision of firm transmission services for the execution of planned maintenance works;

k) all the other rights, as provided in the laws in force or in this contract.

Art. 7. The TSO shall:

a) notify the NU, within 10 calendar days from the date of the conclusion of the last stage provided by the specific procedure for carrying out the incremental capacity process, with regard to the successful or not successful completion of this process;

b) To ensure all conditions of effective use of the incremental capacity booked by the NU from the start date and to ensure the provision of transmission services under this contract within the period provided for in Art. 3 if the minimum capacity threshold provided in the documentation underlying the incremental capacity allocation has been met after the last step provided by the specific procedure for carrying out the incremental capacity process;

c) To notify the NU of possible limitations or, where appropriate, disruptions in the provision of transmission services in the event of non-fulfillment of the payment obligations;

d) To resume the transmission services within 24 hours from the date of fulfilment of the NU's payment obligations;

e) To allow the NU to access the data/documents underlying the issue of the invoice, in the event that the NU disputes the invoice issued;

f) To take over, transmit and deliver to the NU the confirmed quantities expressed in energy units in accordance with the provisions of the Network Code and in compliance with the quality specifications provided in this contract during the period specified in art. 3;

g) answer and settle the NU`s complaints regarding the transmission services, according to the applicable laws;

h) pay in full and to date the invoices issued by the NU for the value of the `Surplus` imbalance of the NU;

i) To pay to the NU the tariff for non-insuring the firm booked transmission capacity, during the period stipulated in art. 3, in accordance with the provisions of the Network Code and this contract;

j) To initiate the amendment and/or completion of this contract in case of change of circumstances, in accordance with art. 20 par. (2);

k) To notify, in writing, on a quarterly basis, the NU on the status of all activities and works specific to the incremental capacity project related to the entry/exit point in/out of the NTS provided in art. 2 par. (1);

l) To inform the NU of any delay in the implementation of the incremental capacity project related to the entry/exit point in/out of the NTS provided in Art. 2 par (1) which would lead to the postponement of the start date provided in art. (3) and to notify the NU of the new start date (delayed start date) within a maximum of 30 calendar days from the date when TSO became aware of that delay;

m) To perform all other obligations as provided by the applicable law or this Contract.

CHAPTER VII. NU`s rights and obligations

Art. 8. The NU shall be entitled to:

a) in the situation stipulated in art. 2 par. (2), to refuse to take-over at the NTS exit point the gas which does not comply with the quality requirements laid down in the specific legislation;

b) to challenge the invoices issued by the TSO and to request the access to the data/documents that underlie the issue of the invoice;

c) to charge, in compliance with the provisions and tariffs provided in the Network Code, the value of the imbalances registered as "surplus", including any possible delay penalties;

d) to request the TSO to amend this contract under the conditions stipulated in art. 20 par. (2);

e) to terminate the contract unilaterally, at any time before the confirmation date, in compliance with the obligation stipulated in art. 9 letter b) as appropriate;

f) to inform the TSO of the termination of the contract, with immediate effect, without any other obligations and without the intervention of the courts or other formalities, if the start date provided in art. 3 is postponed by 12 months or more, by submitting a written notification to the TSO within 90 calendar days of the date of the last notification transmitted by the TSO in accordance with the provisions of Art. 7 letter l) or, if no notice is sent, within 90 calendar days of the date when the NU has become aware that the delay is 12 months or more;

g) to notify the TSO the extension of the contractual period accordingly, if the start date provided in art. 3 is deferred for less than 12 months in total or if the NU has not exercised the right provided for in subparagraph f) by submitting a written notification to the TSO within 90 calendar days of the date of the last notification sent by the TSO in accordance with the provisions of Art. 7 letter l);

h) to charge delay penalties according to the provisions of art. 16;

i) any other rights as provided by applicable law or this Contract.

Art. 9. The NU shall:

a) pay fully and by the due date the invoices issued by the TSO according to the provisions of the Contract

b) To pay the TSO if, as a result of the exercise by the NU of the right under Art. 8 letter e) the incremental capacity process is unsuccessful, a compensation up to the maximum amount set in the documentation of the incremental capacity process and which can be reduced in accordance with the provisions of the specific procedure for carrying out the incremental capacity process;

c) accept the limitation/interruption of the transmission service according to the Contract;

d) establish accordingly the financial payment guarantee stipulated in chapter VIII „Guarantees";

e) All other obligations as provided by applicable law or this Contract.

CHAPTER VIII. Guarantees

Art. 10. The NU shall establish in favour of the TSO:

a) A financial guarantee related to the NU obligation provided in art. 9 letter b);

b) A financial guarantee for the provision of transmission services.

Art. 11. (1) The NU may be exempted from the obligation to establish the financial payment guarantee under art. 10 letter b) if:

a) The NU makes the proof of a credit rating issued by one of the rating agencies Standard & Poor`s, Moody's or Fitch, at least at the same level as that of the TSO, valid over the Contract duration; or

b) it pays in advance the value of the transmission services.

(2) If, during the execution of the Contract the NU`s rating is modified in the sense that it is decreased under the rating level of the TSO or the issuing rating agency changes according to the provisions of par (1) letter a) the NU shall notify the TSO within 3 calendar days from the occurrence of the change/modification.

Art. 12. (1) The financial guarantees provided in art. 10 are presented by the NU as:

a) a letter of bank guarantee in lei or euro equivalent at the European Central Bank in the day the guarantee is issued; and/or

b) a guaranteed account (collateral deposit), in lei or in euro equivalent at the European Central Bank in the day the guarantee is issued and/or

c) an escrow account in lei or in euro equivalent at the European Central Bank in the day the guarantee is issued.

(2) The TSO accepts the letter of bank guarantee issued by a bank that has a rating issued by one of the rating agencies approved by the TSO at least at the "investment grade" level. The equivalence between the rating levels granted by the agencies is published on the TSO's website.

(3) The level of the financial guarantee provided in art. 10 letter a) is..... [To be completed with the maximum amount set in the incremental capacity documentation.].

(4) The financial guarantee provided under art. 10 letter a) shall be made within 30 calendar days of the date of the Contract signing and shall cease to be valid on the 20th calendar day following the date of confirmation.

(5) The financial guarantee provided under art. 10 letter a) may be executed by the TSO up to the amount determined in accordance with the provisions of the specific procedure for carrying out the incremental capacity process. The non-executed part of the guarantee will be refunded by the TSO within 15 calendar days of the confirmation date.

(6) The level of the financial guarantee provided in art. 10 letter b) will be twice the estimated average value of the monthly invoice for transmission services.

(7) If the level of the financial guarantee provided in art. 10 letter b):

a) falls below the level stipulated in paragraph (6), the NU is required to supplement the level of the financial guarantee accordingly;

b) is above the level specified in par. (6), the TSO is obliged to return the UR the difference between the effective level of the guarantee and the one stipulated in par. (6).

(8) The adjustment of the level of the guarantee shall be made not later than 5 working days after the decrease/ increase from the level established according to par. (6) is registered.

(9) The financial guarantee constituted according to para (6) shall be valid from the banking day preceding the start date of the provision of the transmission service and shall cease to be valid on the 60th calendar day following the termination of the contract.

Art. 13. (1) If the NU provides the letter of good standing in accordance with Art 11 para (1) letter a), the TSO may request, in the justified cases mentioned in para (2), the establishment of a payment guarantee according to Art 12 para (6).

(2) For the transmission services a justified case is considered the situation in which a NU is in delay payment for an amount representing at least 10% of the value of the last invoice or of the value of the partial payment obligations, after the receipt of a notice from the TSO to that effect.

Art. 14. (1) The TSO shall be entitled to execute the financial payment guarantee if the NU fails to fulfil its contract obligations completely or partly or if it delays fulfilling such obligations.

(2) Prior to executing such financial payment guarantee, the TSO shall notify the NU, in writing, on the non-fulfilled obligations, at least 5 calendar days prior to its execution.

(3) If the financial guarantee provided in art 10 letter b), is executed partly or completely the NU shall re-establish the guarantee according to the provisions of art. 12 para (7) letter a).

CHAPTER IX. Confidentiality

Art. 15. (1) The Parties shall keep confidential all data, documents and information obtained during the execution of the Contract.

(2) Notwithstanding the provisions of paragraph (1), confidential data, documents and information shall not include any data, documents and information:

a) known to a contracting Party prior to the date of disclosure by the other contracting Party, or

b) disclosed following receipt of the written consent of the other contracting Party for such disclosure,

c) which must be produced as a legal duty on disclosure or

d) are disclosed to an affiliated economic operator; In this situation, the party who discloses to the affiliated economic operator remains liable for the damages that the other party may suffer as a result of disclosure by the affiliated economic operator; The affiliated economic operator benefits from all the exceptions set out in this Article.

(3) The provisions of this Article shall be effective for a period of 5 years from the termination of the Contract.

(4) Failure to comply with the obligations arising from paragraphs (1 to 3) shall hold liable the Party in default, according to the provisions of the law.

CHAPTER X. Contract Liability

Art. 16. (1) Failure to pay the invoices within the deadline stipulated in art. 5 para (2) entails the execution of the guarantee established for this purpose and the payment of delay penalties, calculated on the outstanding amount, equal to the level of the interest due for non-payment of the obligations to the state budget for each day of delay, from the maturity date up to the full payment.

(2) If TSO does not comply with the obligation stipulated in art. 7 letter b) to ensure, at the start date provided in art. 3, all conditions of actual use of incremental capacity booked by the NU, it will pay the NU, monthly, a delay penalty. This penalty will be equal to the capacity booking fee for long-term firm services applicable in that month multiplied by the booked transmission capacity per day and the number of days of that month in which the booked transmission capacity was not provided.

(3) The TSO shall be exempt from payment of the penalties for the first..... months [To be completed by the number of months] from the start date provided for in Art. 3, if the following conditions are met cumulatively:

(i) the TSO notifies the NU of the new start date (postponed start date), in accordance with the provisions of Art. 7 letter l) at least 12 months before the start date provided in art. 3; and

(Ii) the booked transmission capacity becomes effective and fully available within ... months [To be completed by the number of months] from the start date provided for in Art. 3.

(4) If the availability of the booked transmission capacity is delayed beyond the period of ..... months [To be completed by the number of months provided for in paragraph (3)], the TSO shall pay retrospectively, in the month following this period, all monthly penalties calculated in accordance with the provisions of paragraph (2).

(5) The number of months provided for in paragraph (3) may be at most equal to the resulting whole number by applying a 10% percentage to the number of months of the period between the confirmation date and the start date provided in art. 3.

Art. 17. (1) The full or partial culpable breach of the contract obligations by the NU, other than the payment obligations, shall entitle the TSO to claim damages, proportionally with the prejudice, according to the applicable law.

(2) The full or partial culpable breach of the contract obligations by the TSO, other than the ones for which the Contract provides an express penalty, shall entitle the NU to claim damages, proportionally with the prejudice, according to the applicable law.

(3) The debtor of the obligation shall be deemed in default by the meeting of the due dates set for the execution of contractual obligations, except as specifically set forth in this Contract.

CHAPTER XI. Force Majeure

Art. 18. (1) Force majeure is an event that is external, unforeseeable, absolutely invincible and unavoidable, which exonerates the Parties from liability, according to Art. 1.351 of the Civil Code.

(2 The Party claiming Force Majeure shall notify the other Party of such occurrence in writing, within no more than five (5) calendar days from the occurrence of the event, and the proof of the Force Majeure shall be communicated within maximum thirty (30) calendar days from such occurrence.

(3) If the Force Majeure event does not cease within 12 (twelve) months from the occurrence of the force majeure, either Party shall be entitled to request the termination of the Contract de jure, without any of the Parties being entitled to claim damages.

(4) The Act of God does not eliminate the contractual liability.

CHAPTER XII. Contract termination

Art. 19. (1) The Contract shall be terminated:

a) at Contract expiry according to Art. 3;

b) by operation of law following the notification sent by the TSO according to the provisions of 7 letter a), if the incremental capacity process is not successful;

c) by the agreement of the parties;

d) by unilateral termination, in case of initiation of bankruptcy proceedings, of the contractual partner subject to a prior notice,

e) by unilateral termination, under the conditions of art.18;

f) by unilateral termination by the NU, under the conditions of art 8 letter e) and f);

g) by unilateral termination by the NU, if the TSO loses its right to carry out the NTS operation activity:

h) by unilateral termination, under the conditions of art. 1.552 of the Civil code.

(2) The termination of this Contract shall bear no effect on the contracting obligations arisen validly during the execution of the Contract, independent of their deadlines.

CHAPTER XIII. Notifications

Art. 20. (1) The TSO and the NU shall notify each other in writing during the performance of the contract at the registered office of the NU indicated by it, respectively, at the address indicated on the webpage of Transgaz – The National Gas Transmission Company, of any change of circumstances.

(2) For the purposes of this contract, an amendment to a circumstance shall mean the entry into force, modification or repeal of a regulatory act regulating, in whole or in part, the specific terms and conditions of this contract. Legislative changes following the signing of this contract will not lead to changes to the provisions regarding its subject matter and duration.

(3) The deadline for notification shall be no more than 3 calendar days from the date of the change of circumstances, unless otherwise specified in this contract.

(4) Notices between TSOs and NUs may also be made by fax or e-mail, subject to written confirmation of receipt of the communication.

(5) Any written document must be recorded both at the time of transmission and at the time of receipt.

CHAPTER XIV. Applicable law and dispute settlement

Art. 21. (1) This Contract shall be governed by the Romanian law.

(2) The TSO and the NU agree to amicably settle any dispute arising in relation to the validity, interpretation, execution and termination of the Contract. If not, the disputes shall be referred to the competent Romanian law courts.

CHAPTER XV. Contract transfer

Art. 22. (1) The Parties shall be entitled to transfer to a third party, totally or partially, its rights and/or obligations established by this Contract, only with the written consent of the other Party which cannot be refused without any justification.

(2) The transfer intention notification shall be sent to the other Parties at least 30 calendar days prior to the intended transfer date.

(3) The notified Parties shall send a reasoned answer within maximum 20 calendar days from the notification registration date.

(4) If the Party notified in accordance with paragraph (2) fails to answer or, as applicable, fails to send a reasoned answer, without providing a reason for the answer the transfer intention shall be deemed:

a) not accepted, in the case of Contract transfer, according to the applicable law;

b) accepted, in the case of debt transfer.

(5) The transfer to an affiliated economic operator of the rights and/or obligations of the NU arising from this Contract, without the express agreement of the TSO in writing, is allowed only if that affiliated economic operator establishes in favour of the TSO, within a maximum of 10 calendar days from the date of notification of the transfer, financial guarantees for payment at the level of the ones established by the NU.

(6) In any case, the TSO may require the transfer of this Contract only if the transferee is or becomes a licensed operator of the NTS or of a gas transmission system that includes the entry/exit point provided in article 2 para (1).

(7) Should the TSO lose the right to operate the NTS, it shall take all steps to assign this Contract to the new NTS operator or to the operator of that gas transmission system including the entry/exit point provided in article 2 para (1).

CHAPTER XVI. Final clauses

Art. 23. The Contract is concluded in Romanian.

ANNEX 1[2]

(to the Network Code for the National Gas Transmission System)

Gas transmission CONTRACT

related to the NTS (National Transport System) exit points

no. … of year…… month …… day …….

The National Gas Transmission Company TRANSGAZ S.A. Mediaş, headquartered in Mediaş, 1, Constantin I. Motaş Square, Sibiu county, post code 551130, telephone 0269/803333, fax 0269/839029, fiscal registration code RO13068733, registerea in the Trade Register under no J 32/301/2000, holder of the account no. RO79RNCB0231019525310002, opened at the bank B.C.R. - Mediaş Subsidiary, legally represented by the Director General, Mr. Ion Sterian, in the capacity of provider of the transmission service, hereinafter referred to as the transmission system operator or TSO, on the one hand,

and

in the capacity of user of the National Transmission System (NTS) and beneficiary of the transmission services, hereinafter referred to as network user or NU, on the other hand,

agreed to conclude the present transmission contract related to the NTS exit points, hereinafter referred to as the Contract.

Processed version

I. Terminology and applicable legislation

ART. 1

(1) The terms used in the present contract are defined in the Electricity and Gas Law no. 123/2012, as subsequently amended and supplemented, as well as in the Network Code for the National Gas Transmission System, approved by the Order of the President of the Romanian Energy Regulatory Authority (ANRE) no. 16/2013, as subsequently amended and supplemented (the Network Code).

(2) The provisions of this contract are supplemented by the provisions of Law no. 287/2009 regarding the Civil Code, republished, as subsequently amended (Civil Code), the Electricity and Gas Law no. 123/2012, as subsequently amended and supplemented, and ANRE regulations, including the provisions of the Network Code and the Technical Conditions for the operation of points for metering the gas quantities at the NTS entry/exit points, hereinafter called „Technical Conditions", as well as any other legal regulations in force. For all situations not explicitly provided for in this contract, the Network Code provisions are applicable.

II. The scope of the contract

ART. 2

(1) The scope of this contract is the provision of natural gas transmission services, describing the whole range of activities and operations carried out by the TSO for or in connection with the transmission capacity booking at the NTS exit points and the transmission through the National Transmission System (NTS) of the gas quantities, expressed in energy units, to the NST exit points.

(2) The contract entitles the NU to nominate/re-nominate/off-take from the NTS, at the exit points, quantities of natural gas within the booked capacity.

(3) By means of this contract the NU has the right to use the booked capacity at the NTS exit points for the takeover of gas from the NTS in order to supply to its final customers, to cover their own consumption, for storage and/or transmission to interconnected transmission systems.

(4) The booked capacity at the NTS exit points is provided in Annex no. 2 to this contract and is expressed in MWh/day.

(5) The application of the tariff for exceeding the capacity and of the tariff for non-ensuring the booked capacity shall be made in accordance with the provisions of the Network Code and the applicable ANRE regulations.

III. Contract duration

ART. 3

This contract is concluded for ..... (one gas year, one quarter, multiple quarters, one month, multiple months, daily, multiple days) in the time frame ..... .

IV. Conditions for ensuring firm capacities at the NTS exit points to the underground storage facilities

ART. 4

The TSO, acting correctly and prudently, will ensure the firm transmission capacity at the NTS exit points to the underground storage facilities, booked by the NU throughout the duration of the contract.

V. Gas metering at the NTS exit points

ART. 5

The metering of the gas quantities is made continuously according to the provisions of the specific legislation, the determination of energy quantities supplied from the NTS takes place in accordance with the provisions of the Network Code.

VI. Applicable tariffs, invoicing and payment modalities and conditions

ART. 6

(1) The NU will pay to the TSO the amount of the booked transmission capacity established on the basis of the capacity booking tariff applicable when the booked capacity can be used and the tariff related to the commodity component applicable during the same period for the transmitted gas quantity, based on the final allocations.

(2) The TSO shall pay to the NU the value of the non provided transmission capacity, determined on the basis of the tariff for not ensuring the capacity, applicable at the time the NU could not use the booked capacity.

(3) The network user shall also pay the transmission system operator, as the case may be, the tariffs provided for in the Network Code.

(4) The tariffs mentioned in para. (1) and (2) are set out in Annex no. 1 to this contract.

(5) The TSO shall send to the NU, by the 15th of the month following that for which the transmission service was provided, separate invoices (hereinafter referred to as "monthly invoices") drawn up on the basis of the final allocations, as the case may be:

a) an invoice related to the transmission services provided for the previous month, is prepared based on the final allocations;

b) an invoice related to the amount of the tariff for exceeding the booked capacity, calculated in accordance with the provisions of art. 99 of the Network Code, and/or the amount of the tariff for non-ensuring the booked capacity, calculated in accordance with the provisions of art. 101 of the Network Code, as applicable;

c) an invoice related to the amount of the additional capacity, calculated in accordance with the provisions of art. 51 of the Network Code resulting from the nomination by the NU of a quantity of natural gas exceeding the capacity booked by the NU at an NTS exit point.

(6) If the NU opts for the advance payment, the TSO issues and submits to the NU:

(i) with a minimum of 5 calendar days prior to the start date of each month of services provision, a prepayment

invoice equal to the amount of the booked capacity calculated for the month of services provision plus the value of the comodity component, calculated at the contractual level of capacity for the same period;

(ii) within 15 working days after the end of the month of services provision, a payment settlement invoice drawn up based on the final allocation.

ART. 7

(1) The payment of the invoices provided for in art. 6 para. (5) and para. (6) point (ii) shall be made within 15 calendar days from the date of issue of the invoices. If the due date is a non-working day, the deadline is deemed to be reached on the next business day.

(2) Payment of the invoices provided for in art. 6 para. (6) point (i) shall be made up to the date of commencement of the provision of the transmission service on the basis of the advance payment invoice issued for that purpose.

VII. Invoicing and payment terms and conditions for daily transmission contracts [1]

ART. 8

(1) Prior to the commencement of the provision of transmission services, the TSO issues:

a) an invoice representing an advance payment issued for the amount of the booked capacity for which natural gas transmission services are provided plus the amount of the commodity component calculated at the level of the capacity for the same period;

b) within 15 working days from the end of the month of the services provision, a payment settlement invoice drawn up on the basis of the final allocation.

(2) The payment of the invoice amount issued in accordance with paragraph (1) letter a) is effected before the commencement of the transmission services.

ART. 9

The payment obligation is deemed to be met on the date of entry of the respective total amounts into the account of the transmission system operator.

[1] This clause applies only to daily transmiassion contracts.

VIII. Rights and obligations of the TSO

ART. 10

The TSO has the following rights:

a) to collect from the NU the value of the services rendered and the late payments;

b) to draw on the financial guarantee provided by the NU in the event of non-payment at maturity of the invoices issued;

c) to limit/interrupt the provision of transmission services, with prior notice, in the event of non-fulfilment of the payment obligations within the deadline and under the terms and conditions stipulated in the present contract;

d) to interrupt the provision of transmission services, if the NU does not comply with the provisions of the Network Code;

e) to invoice the NU the value of the transmission services provided, observing the tariffs stipulated in the present contract, and, as the case may be, the late payment penalties;

f) to limit or interrupt the provision of transmission services in order to remedy the damage occurring in the NTS, notifying the NU within maximum 6 hours from the moment the TSO became aware of it;

g) to limit the provision of transmission services to the approved nomination level if the daily total energy offtake is higher than this nomination;

h) to limit or interrupt the provision of firm transmission services, if the NU does not comply with the provisions

of Chapter X "Guarantees";

i) all the other rights as set out in the Network Code.

ART. 11

The TSO has the following obligations:

a) to notify the NU about the possible limitations/interruptions in the provision of transmission services in case of non-fulfilment of the payment obligations;

b) to resume the provision of the transmission services within 24 hours from the date of fulfilment of the payment obligations;

c) to deliver the natural gas at the exit from the NTS under the conditions stipulated in the bilateral conventions concluded according to art. 46 para. (6) of the Network Code and in accordance with approved nominations/re-nominations;

d) to allow the NU access to the data/documents that underlie the issuing of the invoice in case the NU contests the issued invoice;

e) to make available to the NU the capacity booked at the NTS exit points according to the contracted levels;

f) to pay to the NU the tariff for non-ensuring the booked capacity;

g) to answer and resolve the notifications of the NU concerning the provision of transmission services under the conditions provided for by the legislation in force;

h) all the other obligations as set out in the Network Code.

IX. Rights and obligations of the NU

ART. 12

The NU has the following rights:

a) to use the capacity booked at the NTS exit points for taking over the gas from the VTP and the transport to the NTS exit points;

b) to return voluntarily or to transfer the approved capacity in accordance with the provisions of the Network Code;

c) to transfer gas quantities in accordance with the provisions of the Network Code;

d) to request and receive from the TSO the related amounts for non-ensuring the booked capacity in accordance with the provisions of the Network Code;

e) to challenge the invoices issued by the TSO and to request the access to the data/documents underlying the issue of the invoice;

f) to refuse to take over at the exit points from the NTS the natural gas which does not comply with the quality conditions stipulated in the Technical Conditions;

g) all the other rights as set out in the Network Code.

ART. 13

The NU has the following obligations:

a) to pay in full and on time the invoices issued by the TSO, in accordance with the provisions of this contract, and, where appropriate, the related late payments;

b) to accept the limitation/interruption of the transmission service under the conditions stipulated in the present contract;

c) to establish accurately the guarantees provided for in this contract;

d) to notify the TSO, by nomination/re-nomination, of the designated partner and of the related energy quantities respectively;

e) to take all the necessary measures, through suppliers and system operators, for the supply of energy to its

customers, including to the interruptible customers, in compliance with the legislation in force;

f) all the other obligations as set out in the Network Code.

X. Guarantees

A. General provisions

ART. 14

(1) For the fulfilment of the contractual obligations, each party will establish in favour of the other party a guarantee in accordance with the provisions of the Network Code.

(2) For the purpose of fulfilling the obligation stipulated in para. (1) of this article, the TSO shall provide the proof of its credit rating.

(3) The NU is exempted from the obligation to establish the financial payment guarantee to the TSO if:

a) it produces evidence of a credit rating issued by one of the rating agencies approved by the TSO or at least at the same level as the one granted to the TSO valid for the duration of this contract;

b) it pays in advance the countervalue of the transmission services.

(4) If, throughout the duration of this contract, either the NU's rating or the agency agreed upon by the TSO changes, the NU shall notify the TSO within 3 working days from the performance of the change and to prove the fulfilment of its warranty obligations comprised in this chapter within no more than 5 working days from the date of the change.

ART. 15

(1) The financial payment guarantee is presented by the NU in the form of:

a) a letter of bank guarantee in lei or Euro equivalent at the exchange rate of the European Central Bank on the

day of issue of the guarantee (according to the template in Annex 4); and/or

b) a guaranteed account (collateral deposit) in lei or Euro equivalent at the exchange rate of the European Central Bank on the day of issue of the guarantee; and/or

c) an escrow account in lei or the Euro equivalent at the exchange rate of the European Central Bank on the day of the issue of the guarantee.

(2) The TSO accepts a letter of bank guarantee issued by a bank rated by one of the rating agencies: Standard & Poor's, Moody's or Fitch, at least at the " investment grade" level. The equivalence between the rating levels awarded by the three agencies is published on the TSO's website.

ART. 16

(1) In case the NU proves the creditworthiness according to art. 14 para. (3) letter a), the TSO may in certain justified cases require the provision of a financial payment guarantee in accordance with the provisions of art. 15 or the advance payment of the payment obligations arising from the commercial relationship with the NU. The requirements for a guarantee or an advance payment will be provided for and explained in written form.

(2) In the case of transmission services, it is considered to be a justified case that the NU is in default for the payment of an amount at least equal to 10% of the value of the last invoice or of the amount of the partial payment obligations, after a notification has been received from the TSO in this respect.

B. Annual and quarterly product

ART. 17

(1) The NU has the obligation to submit to the TSO the financial payment guarantee in the amount provided for

in para. (2) at least 5 working days before the start of the transmission service period.

(2) The level of the financial payment guarantee established by the NU shall be equal to the average amount of the estimated monthly invoices for the transmission services for the following period of use.

(3) The financial payment guarantee established in accordance with para. (2) shall be valid from the banking day preceding the date of commencement of the provision of the transmission service and shall cease to be valid on the 60th calendar day following the termination of the contract by reaching its due date.

(4) The NU may waive the option of establishing a guarantee for the provision of the transmission service by making advance payments. To this end, the NU shall notify the TSO in writing, within a maximum of 7 working days after the end of the capacity booking period, of the prepayment option.

(5) The prepayment amount is equal to the amount of the monthly invoice for the transmision services related to the next period of use.

(6) The advance payment/invoice are compensated by the settlement invoice related to the month for which the payment was made.

(7) If such advance payment does not cover the amount of the settlement invoice for that month, the difference shall be paid by the NU at the due date of the invoice.

(8) The NU may waive the option of advance payment, subject to the establishment of a financial payment guarantee under the conditions of art. 14 para. (3) or art. 15.

C. Monthly product

ART. 18

(1) The NU has the obligation to submit to the TSO the financial payment guarantee in the amount provided for in paragraph (2) at least 3 working days before the start of the transmission service period.

(2) The level of the financial guarantee provided by the NU shall be equal to the estimated monthly invoice for

the transmission services for the following period of use.

(3) The financial guarantee payment established in accordance with para. (2) shall be valid from the banking day preceding the date of commencement of the provision of the transport service and shall cease to be valid on the 60th calendar day following the termination of the contract by reaching its due date.

(4) The NU may waive the option of establishing a guarantee for the provision of the transmission service by making advance payments. In this respect, the NU shall, in writing, within a maximum of two working days from the date of the end of the capacity booking period, notify the TSO of the advance payment option.

(5) The advance payment amount is equal to the monthly invoice for the transmiassion services for the next period of use.

(6) The advance payment/Advance payment invoice is compensated by the settlement invoice for the month for which the payment was made.

(7) If the advance payment in question does not cover the value of the settlement invoice for that month, the difference shall be paid by the NU at the due date of the invoice.

D. Daily product

ART. 19

For the daily product, the payment is made in advance, within 24 hours from the acceptance and signing of the transmission contract and before the start of the provision of the transmission services according to art.7.

ART. 20

(1) The payment guarantee issued under art. 17 para. (1) shall be valid from the banking day preceding the

date of commencement of the provision of the transmission service and shall cease to be valid on the 60th calendar day following the termination of the contract by its due date.

2. Where the level of the financial payment guarantee:

a) decreases by more than 5% below the level specified in art. 17 para. (2), the NU is required to supplement the level of the financial guarantee accordingly;

b) increases more than 5% above the level specified in art. 17 para. (2), the TSO is obliged to return to the NU the difference between the effective level of the guarantee and the one specified in art. 17 para. (2).

(3) The adjustment of the level of the payment guarantee shall be made no later than 5 working days after the decrease/increase from the level established according to art. 17 para. (2).

(4) The TSO shall have the right to claim the guarantee provided for in this Article within the limit of the damage caused if the NU does not fulfil all or part of its contractual obligations or performs them later.

(5) Prior to the issue of a guarantee claim, the TSO has the obligation to notify the NU, stating the obligations that have not been complied with.

(6) The notification regarding the establishment of the guarantee shall be sent by fax to the TSO, within 24 hours of the expiry of the period stipulated in art. 23 para. (1) letter a).

(7) In case of execution of the partial or total guarantee, the NU has the obligation to re-establish the guarantee within 5 days from the drawing on.

XI. Transmission programme

ART. 21

(1) The transmisson programme will be sent directly to the informational platform in accordance with the

provisions of art. 27 letter B of the Network Code and will be set out in Annex no. 3 to this Contract.

(2) The transmission programme may be modified in accordance with the procedure laid down in the Network Code.

(3) The Parties shall comply with the minimum/maximum pressure at the NTS exit points as provided for in the bilateral Conventions concluded in accordance with the provisions of the Network Code.

XII. Confidentiality Clause

ART. 22

(1) The parties are required to keep confidential the data, documents and information obtained from the performance of the contract.

(2) The following data, documents and items of information are exempted from the provisions of para. (1):

- those that may be disclosed in accordance with the Network Code;
- those for which the written agreement of the other Contracting Party has been obtained for them to be disclosed;
- those required by the competent state bodies, based on a legal obligation of information.

(3) The provisions of this article shall remain in force for a period of five years after the termination of the contractual relations.

XIII. Contractual liability

ART. 23

(1) The non-fulfilment of the invoice payment obligation within the deadline provided for in art.7 para.(1) triggers

the following effects:

a) the charging of a late payment rate, calculated on the outstanding amount, equal to the default interest due for non-payment of the budget obligations for each day of delay starting from the 16th calendar day from the date of issue of the invoice to the payment date including the day of payment, or until the guarantee provided in the contract is executed in the event of default, within 15 calendar days of the due date;

b) the limitation/interruption of the gas transmission service, with 3 calendar days notice, starting on the day immediately following the expiration of the 15 calendar day period stipulated in letter a) in the case of non-fulfilment of the payment obligation;

c) the limitation / interruption of the natural gas transmission service, with 3 calendar days notice, starting from the day immediately following the day when the amount of the NU imbalances exceeds the value of the balancing guarantees.

(2) If the due date or the day immediately following the expiration of the grace period is a non-working day, the deadlines provided for in paragraph (1) are extended accordingly.

ART. 24

If the NU, at the TSO's request, does not voluntarily surrender /does not use the transferred and unused capacity transfer facility, by making the required capacity transfer, the NU is required to pay 5% of the transferred capacity, for the period between the date of the mandatory capacity transfer and that of the cease and termination of the contract.

ART. 25

(1) The NU is entitled to request and receive an amount set based on the tariff for non-ensuring the booked capacity, in accordance with the provisions of the Network Code, if the TSO does not keep all the capacity

booked by the NU available to the NU.

(2) If the amount stipulated in para. (1) does not fully cover the damage suffered, the NU has the right to claim and receive additional compensatory damages, up to the full coverage of the damage caused, in case the TSO does not fulfil its obligation to provide the gas transmission services, as well as any other obligations set forth in this contract.

XIV. Force majeure/ Unforeseeable circumstances

ART. 26

(1) Force majeure 158st hat external, unpredictable, absolutely invincible and inevitable event that exonerates the parties of liability, under the conditions of art. 1.351 of the Civil Code.

(2) If the force majeure event does not cease within 30 calendar days, the parties have the right to request the termination of the contract, without any of them having the right to claim compensatory damages.

(3) The party invoking force majeure has the obligation to notify the other party, in writing, by notice within maximum 5 days from its occurrence, and the proof of force majeure shall be communicated within 30 days of its occurrence.

ART. 27

(1) The unforeseeable circumstance is an event that cannot be predicted or prevented by the party that would have been deemed liable if the event had not occurred.

(2) The Parties are relieved of liability when the performance of an obligation has become impossible due to circumstances that are not attributable to the party that would have fulfilled it.

XV. Cancellation and termination of the contract

ART. 28

(1) The present contract is ceased and terminated:

a) by the execution of the contractual obligations;

b) at the expiration of the contract period;

c) in case of non-fulfilment of one of the requirements regarding the access to the transmission services through the NTS, provided for in the Network Code;

d) in case of voluntary return of the total approved capacity in accordance with the Network Code;

e) in the case of mandatory transfer of the total capacity approved under the conditions of the Network Code;

f) by termination in case of bankruptcy, dissolution, liquidation or withdrawal of the license, as the case may be, of the contractual partner;

g) for force majeure, according to the contract.

(2) The termination of this contract has no effect on the contractual obligations arising from the performance of the contract until its termination.

(3) In the event of termination of the contract before the expiry of the validity period, (1) lit. c) and f), the UR is obliged to pay the TSO the value of the contracted capacity products for the remaining period until the expiration of the term of the contract.

XVI. Notifications

ART. 29

(1) The parties shall notify each other at the headquarters provided in the introductory part of this contract of any change in the circumstances envisaged at the date of signature of this contract.
(2) The deadline for notification shall be no more than 5 calendar days from the date of the change of circumstances, unless otherwise specified in this contract.
(3) The arrangements for notification shall be determined by the Parties by mutual agreement, in accordance with the provisions of the Network Code.

XVII. Applicable laws and dispute settlement

ART. 30

(1) The provisions of this contract are subject to and interpreted in accordance with the Romanian laws in force.

(2) The parties agree that all misunderstandings regarding the validity, interpretation, execution and termination of the contract shall be settled amicably. If the disputes are not settled amicably, they will be settled by the competent courts of law.

XVIII. Contract assignment

ART. 31

(1) Neither party may in any way, in whole or in part, assign to a third party any rights and/or obligations arising from this Agreement except with the written consent of the other Party that cannot be unduly refused.
(2) The notification of the intention to assign is forwarded to the other party at least 10 working days prior to the planned assignment.

(3) The notified party shall be obligated to respond reasonably within a maximum of 5 working days from the date of registration of the notification.

XIX. Other clauses

ART. 32

(1) This contract may be amended or supplemented by written addendum.
(2) By way of exception to the provisions of para. (1), this contract shall be automatically amended or supplemented with any modification or addition applicable to the gas transmission contract or to the contractual relation between the TSO and NU, provided by a national or European regulatory act, each party having the obligation to assume the respective modifications/supplements.

ART. 33

The following annexes are inherent parts of this contract:

– Annex no. 1 – Tariffs for providing the transmission services;

– Annex no. 2 – Capacity booking at the NTS exit points;

– Annex no. 3 – Transmission programme;

– Annex no. 4 – Letter of bank guarantee template.

The present contract was concluded today on ....., in two original counterparts, and each party declares to have received an original copy thereof.

Transmission System Operator — Network User

SNTGN TRANSGAZ S.A.

ANNEX no. **1[3]**

(to the Network Code for
the National Gas Transmission System - NTS)

CONTRACT
for balancing and access to the VTP
no. … of year …… month …… day …….

The National Gas Transmission Company TRANSGAZ S.A. Mediaş, headquartered in Mediaş, 1, Constantin I. Motaş Square, Sibiu county, post code 551130, telephone 0269/803333, fax 0269/839029, fiscal registration code RO13068733, registerea in the Trade Register under no J 32/301/2000, holder of the account no. RO79RNCB0231019525310002, opened at the bank B.C.R. - Mediaş Subsidiary, legally represented by the Director General, Mr. Ion Sterian, in the capacity of provider of the transmission service, hereinafter referred to as the transmission system operator or TSO, on the one hand,

and

……, in the capacity of client of the TSO and beneficiary of the transfer of the ownership right services, hereinafter referred to as „**network user"** or „**NU"**, on the other hand,

Hereinafter collectively called the "Parties" and each individually the "Party", agreed to conclude the present contract of balancing and access to the VTP, hereinafter called "contract".

I. Terminology and applicable legislation

ART. 1. – (1) The terms used in the present contract are defined in (EU) Regulation no 312/2014 of the Commission dated 26 March 2014 for setting a network code on balancing gas transmission networks, in the Electricity and Gaz Law no. 123/2012, as subsequently amended and supplemented, as well as in the Network Code for the National Gas Transmission System, approved by the Order of the President of the Romanian Energy Regulatory Authority (ANRE) no. 16/2013, as subsequently amended and supplemented (the Network Code).

(2) The provisions of this contract are amended by the provisions of Law no. 287/2009 regarding the Civil Code, republished, as amended (Civil Code), Power and Gas Law no. 123/2012, as amended and ANRE regulations, including the provisions of the Network Code as well as any other legal regulations in force. For all situations not explicitly provided in this contract, the Network Code provisions are applicable.

II. – Object of the contract

Art. 2. - The object of the contract is to establish the rights and obligations of the parties resulting from the balancing of the differences between the natural gas NTS inputs and outputs, as well as the access to the VTP and the transfer of the ownership right.

III. – Duration of the contract

Art. 3. **–** This contract is concluded for .....(one gas year, one quarter, multiple of quarters, one month, multiple of months, daily, multiple of days) during the period .....

IV. – Rights and obligations of the parties

Rights and obligations of the NU

Art. 4. - (1) NU is entitled to the services for the transfer of the ownership right for the purpose of registering transactions dealing with quantities of natural gas from the NTS.
(2) NU has the right of access to the informational platform that serves the VTP operation under the conditions provided by the Procedure of access to the information platform that serves the VTP. The procedure for access to the information platform is developed by the TSO and is displayed on its own website.
(3) NU has the right to collect fully and duly the value of the positive imbalances recorded by the UR, including possible late payment penalties.
(4) NU has the right to receive information on the daily imbalance, according to the procedures provided by the regulations in effect.
(5) NU has the right, during the term of the contract, to appoint and empower, according to the law, a representative to submit commercial notifications to the TSO on behalf of the NU. The NU will notify the TSO of its decision to appoint and empower a representative.
(6) NU has the obligation to perform the daily balancing of its own portfolios so that at the end of each gas day the recorded imbalance is 0.
(7) NU is required to provide the payment financial guarantee under the terms and conditions set out in this contract.
(8) NU has the obligation to invoice the amount of the positive imbalances and pay in full and on time the invoices issued by the TSO, representing the value of the negative imbalances registered by the NU.
(9) NU has the obligation to pay to the TSO the invoice issued in accordance with the provisions of the Methodology for calculating the balancing neutrality charges, including their distribution among the users of the natural gas transmission network approved by the order of the ANRE President, if the outcome of the balancing activity is negative.
(10) NU has the obligation to observe the provisions of the Convention for the participation in the natural gas balancing market, set out in the Annex to this contract.
(11) NU has all the other rights and obligations under the applicable regulations.

Rights and obligations of the TSO

Art. 5 - (1) TSO has the right to collect in full and on time the issued invoices, representing the value of the negative imbalances registered by the UR.

(2) TSO provides the NU with access to the information platform serving the VTP under the conditions provided by the Access to the Informational Platform that serves the VTP.
(3) TSO shall record the notifications, validate and confirm the transfers of the ownership rights, in compliance with the rules provided by the regulations in force.
(4) TSO determines and makes available to the NU its daily imbalance, in accordance with applicable regulations.
(5) TSO has the right to invoice, in accordance with the provisions and tariffs provided for in the Network Code, the value of the imbalances registered under the heading "Deficit", including possible late payment penalties;
(6) TSO has the right to execute the payment financial guarantee submitted by the UR in the event of non-payment at maturity of the invoices issued.
(7) TSO allows the UR, at its request, to access the data / documents underlying the invoices issued under this contract.
(8) TSO has the obligation to pay in full and on time the value of the positive imbalances registered by the NU.
(9) TSO shall pay to the UR the value of the invoices issued in accordance with the provisions of the Methodology for calculating the neutrality charges for balancing, including their distribution to the users of the natural gas transport network approved by order of the ANRE President, if the result of the balancing activity is positive.
(10) TSO shall meet the provisions of the Convention for the participation in the natural gas balancing market, set out in the Annex to this contract.
(11) TSO has all the other rights and obligations under the applicable regulations.

V. – Daily imbalance. Imbalance tariff

Art. 6 – The determination of the NU daily imbalances, as well as of the daily imbalance tariffs, is made according to the provisions of the Network Code.

VI. – Invoicing and payment conditions

Art. 7 - TSO shall transmit to the NU:

a) by the 15th day of the month, an invoice relating to the final daily positive or negative imbalances, registered in the previous month, the value of which was calculated in accordance with the rules laid down in the Network Code;
b) by the 10th day of the month following that in which the neutrality charge is calculated, an invoice related to the

difference between the costs and the revenues resulted from the balancing activity, calculated according to the methodology for calculating the neutrality charges, approved by order of the ANRE president.

Art. (7^1) – The NU permanently monitors the compliance of the value of the registered imbalance with the level of the guarantee calculated according to Art. 12 (7). If the value of the aggregated imbalance of a NU, representing the algebraic sum of the daily imbalances of the delivery month, is a `deficit`, such value cannot exceed the guarantee for balancing established by the NU.

Art. 7^2 Until day 15th of the month, the NU sends to the TSO an invoice for the final daily `surplus` imbalances, registered in the previous month, the value of which was calculated according to the provisions of the Network Code.

Art. 8 - (1) The payment of the invoices under Art. 7 and Art. 72 shall be made within 15 calendar days from the date of invoice issue. If the due date is a non-working day, the deadline is deemed to be met on the next business day.
(2) All payments made by the NU shall be made by bank transfer to the account specified by the TSO.
(3) All payments made by the TSO shall be made by bank transfer to the account specified by the NU.
(4) During the term of the contract, either party may choose another bank, provided that prior notice is given to the other party at least 30 days before the due date of the payment.

Art. 9 - The payment obligation is deemed to be fulfilled at the date the respective aggregated amounts enter the TSO account or the NU account, as appropriate, depending on who the issuer of the invoice is.

Art. 10 - (1) If an invoiced amount is challenged in full or in part, the contestant shall submit an Explanatory Note, including his objections, within 3 (three) working days from the date of the invoice communication, by fax or e-mail with extended electronic signature , and shall pay the uncontested amount until the payment deadline, according to art.8.

(2) The objections regarding the invoiced values presented in the explanatory note will be reconciled between the parties within 3 (three) working days from the receipt of the formulated claims.
(3) For the amounts challenged, but subsequently settled amicably or by a final court decision, the debtor shall pay, in addition to the amount due, penalty interest calculated according to the provisions of art. 11.
(4) If after the appeal the reduction of the invoiced values was established, the debtor shall be refunded any amounts and related penalties calculated according to par. (3), already paid, corresponding to the respective reduction, within 3 working days.

Art. 11 – The failure to meet the obligation to pay the invoices, within the term stipulated in art. 8 para. (1) entails the following:

a) charging a late payment rate, calculated in relation to the unpaid value equal with the default interest due for having not paid the budgetary obligations within the deadline, for each day of delay starting with the 16th calendar day from the date of invoice issue to the full payment thereof, including the date of payment, or until the drawing on the guarantee under the contract, in case of default, within 15 calendar days from the due date;
b) the performance of the guarantees presented by the NU in accordance with the provisions of art. 12, only for amounts due and unpaid and the related default interests.

(2) If the due date or the day immediately following the expiration of the grace period is a non-working day, the deadlines provided in paragraph (1) are extended accordingly.

VII. - Guarantees

Art. 12. - (1) The NU has the obligation to establish in favour of the TSO a financial payment guarantee for covering the risk of failure to pay the invoices issued by the TSO, representing the value of the aggregated imbalance calculated as an algebraic sum of the daily imbalances of the delivery month, if such imbalance is a `deficit..
(2) The guarantee provided in par. (1) shall not be established for operators of trading platforms and central counterparties.
(3) NU may be exempted from the obligation to establish the financial guarantee for payment referred to in para. (1) if it proves that it has a credit rating issued by one of the rating agencies approved by the TSO at least at the same level as the one granted to the TSO, valid for the duration of this contract.
(4) In the event that, during the duration of this contract, the rating granted to the NU is modified so as to fall below the rating of the TSO as well as in case the rating agency is changed in relation to the provisions of para. (3), the NU is obliged to notify the TSO in this respect within 3 calendar days from the occurrence of the modification / change.
(5) The financial guarantee is presented by the NU in the form of:

a) a letter of bank guarantee in lei or in the Euro equivalent at the exchange rate of the European Central Bank on the day of guarantee issue; and / or
b) a guaranteed account (collateral deposit) in lei or in the Euro equivalent at the exchange rate of the European Central Bank on the day of guarantee issue; and / or
c) an escrow account in lei or in the Euro equivalent at the exchange rate of the European Central Bank on the day of guarantee issue.
d) cash, in the guarantee account of the TSO.

(6) TSO accepts the letter of bank guarantee issued by a bank that has a rating issued by one of the rating agencies approved by the TSO at least at the "investment grade" level. The equivalence between the rating levels given by agencies is published on the TSO website.

(7) The level of the financial guarantee (NG) under paragraph (1) will be determined as follows:

a) NG = 1,000 RON for the first month of the contract;

b) starting with the second delivery month:

(i) if the aggregated imbalance calculated as an algebraic sum of the daily imbalances of the delivery month is a `deficit` and is lower than 10% of the sum of the daily allocated quantities, the guarantee under a) shall be maintained;

(ii) if the aggregated imbalance calculated as an algebraic sum of the daily imbalances of the delivery month is a `deficit` and ranges between 10% and 50% of the sum of the daily allocated quantities, NG = the maximum value of the monthly imbalance registered in the current gas year;

(iii) if the aggregated imbalance calculated as an algebraic sum of the daily imbalances of the delivery month is a `deficit` and is higher by 50% of the sum of the daily allocated quantities, NG = 2 x the maximum value of the monthly imbalance registered in the current gas year;

(iv) if the NU has outstanding invoices in the current gas year, NG = 2 x the maximum value of the monthly imbalance registered in the current gas year, independent of the value of the aggregated imbalance calculated as an algebraic sum of the daily imbalances of the delivery month.

(8) If the level of the financial guarantee is decreased below the level provided for in paragraph (7), the NU shall supplement the level of the financial guarantee accordingly within maximum 5 working days from the date of the decrease.

(9) If the NU does not supplement the level of guarantee under paragraph (8), the TSO shall interrupt the access to the VTP providing a 3 - calendar day advance notice. VTP access is resumed at the supplementation of the guarantee by the NU.

(10) a) abrogated.

b) abrogated.

b[1]) If the NU who does not record outstanding invoices older than 15 days, the level of the guarantee is increased to the amount of the imbalance as negative surplus registered by such NU during the previous month.

c) If the value of the aggregated imbalance calculated according to Art. 71 is lower than the level of the financial guarantee established by the NU according to paragraph (7), the NU may request the decreasing of the financial guarantee level if such NU has no outstanding invoices in the current gas year.

d) The level of the financial guarantee may in no case be lower than that established in accordance with paragraph (7).

(11) The financial guarantee constituted according to para. (7) shall be valid starting with the banking day preceding the start date of the period for which the contract of balancing and access to the VTP is concluded and shall cease to be valid on the 60th calendar day following the termination of the contract.
(12) If the NU proves its creditworthiness in accordance with paragraph (3), the TSO may request, in the justified cases provided for in paragraph (13), the provision of a financial guarantee in accordance with the provisions of paragraph (7) and (10).
(13) It is considered a justified case the fact that the NU is late in payment for at least 10% of the amount of the last negative imbalance invoice or of the amount of the partial payment obligations after a notification has been received from the TSO in this regard.
(14) TSO may execute the guarantee provided for in this Chapter if the NU does not fully or partially fulfil its contractual obligations or performs them late.
(15) At least 5 calendar days prior to the drawing on of the guarantee, the TSO has the obligation to notify in writing the NU, stating the breached obligations.

(16) In the event of the partial or total drawing on of the financial guarantee, the NU has the obligation to restore this facility in accordance with the provisions of para. (9) and (10)).

VIII. – Force majeure / fortuitous case

Art. 13 – (1) Force majeure is that external, unpredictable, absolutely invincible and inevitable event that releases the parties from liability, under the conditions of art. 1351 of the Civil Code.

(2) If the force majeure event does not cease within 30 calendar days, the parties have the right to request the rightful termination of the contract, without any of them having the right to claim compensatory damages.

(3) The party invoking force majeure has the obligation to notify the other party, in writing, by notice within maximum 5 days from its occurrence, and proof of force majeure shall be communicated within 30 days of its occurrence.

Art. 14. - (1) The fortuitous case is an event that cannot be predicted or prevented by the party that would have been held liable if the event had not occurred.

(2) Parties are released from liability when the performance of an obligation has become impossible due to circumstances that are not attributable to the party that would have fulfilled it.

IX. – Confidentiality Clause

Art. **15**. -(1) The parties are required to keep confidential the data, documents and information obtained from the performance of the contract.
(2) The following data, documents and items of information are exempted from the provisions of para. (1),:

- those that may be disclosed in accordance with the Network Code;
- those for the disclosure of which the written agreement of the other contracting party has been obtained;
- those required by the competent state bodies, based on a legal obligation to inform.

(3) The provisions of this article shall remain in force for a period of five years after the cease and termination of the contractual relations.

X. – Assignment of the contract

Art. 16 – The present contract may not be assigned.

XI. – Applicable legislation and dispute settlement

Art. 17 - (1) The provisions of this contract are subject to and interpreted in accordance with the Romanian legislation in force.
(2) The Parties agree that all disputes regarding the validity, interpretation, execution and termination of the contract shall be settled amicably. If the dispute is not settled amicably, it will be settled by the competent courts of law of Romania.

XII – Notifications

Art. 18 - (1) The parties shall notify each other to the headquarters provided in the introductory part of this contract of any change in the circumstances envisaged at the date of signature hereof.
(2) The deadline for notification shall be no more than 5 calendar days from the date of the change of circumstances, unless otherwise specified in this contract.
(3) The arrangements for notification shall be determined by the Parties by mutual agreement, in accordance with the provisions of the Network Code.

XIII. Contractual liability

Art. 19. For breach of contractual obligations, the defaulting party shall pay damages to the other party, in accordance with the provisions of art.1531 and foll. of the Civil Code.

XIV. Contract cancellation

Art. 20 Either party is entitled to cancel the contract in case of culpable breach of the contractual obligations in full or in part by the other party.

Art. 21 - (1) The intention to terminate the contract must be notified to the other party within 20 (twenty) calendar days from the date of maturity of the unfulfilled obligation.
(2) The cancellation by either Party as a result of the breach by the other Party of the contractual obligations to pay the imbalance tariffs or the balancing guarantees provided for in art. 7 and art. 13 shall be made without the intervention of the court without delay and without any prior formality except by giving written notice of cancellation to the other Party at least 3 (three) calendar days before the date specified in the notice of Contract cancellation.

XV. – Suspension of the contract execution

Art. 22 - (1) In the event that, during the performance of the contract, the conditions under which it was concluded are no longer fulfilled, the NU has the obligation to notify the TSO within 24 hours of the occurrence of such change.
(2) If the NU does not comply with the obligation under para. (1), the TSO has the right to partially or totally suspend this contract, with the prior transmission of a notification.
(3) NU shall not be entitled to claim damages for the suspension of the contract or a part of it as a result of the NU's failure to comply with the conditions for access to the VTP.

XVI – Contract termination

Art. 23 - (1) This Agreement ceases to be effective in the following situations:
a) the expiry of the Validity Period established according to the provisions of art. 3;
(b) by common agreement of the Parties, on the basis of an adendum;
c) by termination under the conditions of point XIV;
d) following a case of force majeure / fortuitous case, according to the Contract.
(2) The cease of this Agreement is without prejudice to the performance of contractual obligations in force within the period of validity of this contract, irrespective of the moment of their expiration.

XVII. Modification of the legal circumstances

Art. 24 - For the purpose of this contract, "change in legal circumstances" means the case when, during the course of the present contract, one or more normative acts come into force which, in relation to the subject matter of the regulation, justify the de jure amendment and/or completion of the contract, in order to ensure compliance with the normative provisions

XVIII – Other clauses

Art. 25. - (1) This contract may be amended or supplemented by an addendum in written form.
(2) By exception from the provisions of para. (1), this contract is automatically amended or supplemented with any amendment or completion applicable to the contract of balancing and access to the VTP or the contractual relationship between the TSOs and the URs, provided by a national or European regulatory act, each party having the obligation adopt the changes/completions.

Art. 26. Abrogated

The present contract was concluded today, on ....., in two original counterparts, and each party declared to have received an original sample thereof.

Transmission System Operator Network User

SNTGN TRANSGAZ SA"

Annex to the Contract of balancing and access to the VTP

CONVENTION OF PARTICIPATION IN THE NATURAL GAS BALANCING MARKET

I. TERMINOLOGY AND APPLICABLE LEGISLATION

Art. 1 (1) The terms used in this Convention are defined in the Electricity and Gas Law no. 123/2012, as subsequently amended and supplemented, as well as in the Network Code for the National Gas Transmission System, approved by the Order of ANRE President no. 16/2013, as amended and supplemented (*the Network Code*).

(2) For the purposes of this Convention, the terms, expressions and abbreviations used have the following meaning:

Annulment of an offer – deleting the offer from the record of the active offers of a PE participant taken into account for the transaction, the offer remaining recorded in the database for the statistical processing platform

Convention – the letter of bank guarantee – document according to which the guarantee bank irrevocably and unconditionally undertakes to pay, upon the first written request of the TSO/ third party designated by the TSO any amount up to the maximum amount set by the Participant to the balancing market, as guarantee officer; it is issued for alimited period of time, according to the template agreed by the banking community.

Suspension of an offer – deleting an offer by the participant from its list of active market offerings. A suspended offer may be reactivated by the BM participant at any time during the trading session for the Instrument for which it was entered;

Daily settlement note – report issued within the settlement platform for each Participant to the BM, which specifies, cumulatively at the gas delivery day, the quantities of natural gas traded on sale or purchase, the market closing price, and the values of the collection / payment obligations, including the VAT value;

ANRE – Romanian Energy Regulatory Authority

BM – natural gas balancing market

BM procedure – the trading procedure on the natural gas balancing market, stipulated in Annex no. 1^4 to the Network Code.

II. OBJECT OF THE CONVENTION

Art. 2 - (1) The subject of the Convention is the provision by the TSO/the third party designated by the TSO of the services of organizing and managing the natural gas balancing market and granting the participant to the BM the right to carry out natural gas sales and purchases on this market with the TSO/ the third party designated by the TSO as a counterparty in compliance with the primary and secondary legislation applicable to this market.
(2) By the conclusion of this Convention, the Parties shall become aware of the reciprocal rights and obligations regarding the organised framework for the conduct of transactions on the BM, namely the proceeds and payments related to such transactions, on the basis of specific rules.
(3) The Convention is applicable to the BM and the related trading procedure is the BM Procedure. The purpose

of the transaction is to sell/purchase natural gas within the limits of the quantities registered as initial daily imbalance, at a price established in a transparent and non-discriminatory manner, following the trading session.
(4) The transactions are concluded on the basis of orders entered into the trading platform, which contain the firm contracting commitments to the market. For each traded order, the TSO notifies through the trading platform the traded quantity and the closing price of the balancing market for the day of delivery for which the order was placed.
(5) The conditions for participating in trading sessions, offering, trading, publishing and making available the results of the trading sessions, receipts and payments related to transactions on the BM are made in accordance with the specific procedures developed by the TSO and published on its Internet page, as well as the BM Procedure.
(6) If the identification data of the Participant comprised in the Convention are modified, the Parties shall sign an addendum thereto which shall record the changes made.

III. RIGHTS AND OBLIGATIONS OF THE PARTIES

Art. 3 The rights of the participant to the BM are the following

a) to receive from the TSO, at its request, assistance and practical training sessions on the use of the BM trading platform;
b) to introduce offers for sale and/or purchase of natural gas for the BM according to the daily trading schedule;
c) to use a letter of bank fianncial guarantee, which will specify that it is used for the gas balancing market;
d) to verify the records of their own transactions and view the offers submitted by the other market participants in the BM trading platform;
e) to modify, suspend or cancel the gas offer (s) during the trading session on the BM trading platform;
f) to receive from the TSO through the BM trading platform confirmation of the validation of offers / information regarding the invalidation of offers;
g) to access the Transaction Confirmations, Daily Settlement Notes and Notifications, or request from the TSO the transmission thereof in case they cannot access the BM trading platform;
h) to fully collect the value of the collection rights related to the sales of natural gas on the BM through daily receipts of the seller's value provided for in the daily settlement notes by daily payment orders issued by the TSO/third party designated by the TSO to credit the bank account opened by the Participant to the BM at a

commercial Bank in Romania and to document, monthly the payment of the payment obligations, the receipt of the rights and payment of the reciprocal obligations to regulate, to an equal amount and to issue and transmit to the TSO the daily invoice for the quantities of natural gas sold on the BM;
i) to be notified through alternative communication channels (telephone, fax, e-mail, website) in case of disruption and resumption of operation of the BM trading platform;
j) to decide at its own initiative to withdraw from the BM on the basis of a notice sent to the TSO/third party designated by the TSO.

Art. 4 The obligations of the participant to the BM are the following:

a) to comply with the provisions of the Procedure set out in Annex no. 1^4 of the Network Code, as well as other procedures related to the functioning of the BM;
b) if it intends to introduce purchase offers, to conclude a SEPA Direct Debit Mandate with its settlement bank which will ensure the registration of the document in the TransFonD and to send the scanned document by email to teh TSO/third party designated by it;
c) to make all the necessary endeavours to the Bank for its own guarantee so that the TSO/ third party designated by it for receipt by the TSO, from the central account Bank, no later than 12:00 o'clock, one (1) bank business day before the day when the participant to the BM wishes to introduce purchase offers, of the financial bank guarantee letter, in original, issued for it, if the letter of bank guarantee is issued by the central account Bank, or the swift message of the guarantee Bank accompanied by the opinion of the central account Bank if the letter of bank guarantee is issued by another guarantee Bank than the central account Bank;
d) to require the TSO/third party designated by it to agree to reduce the value of the letter of financial bank guarantee, as well as to remove the Guarantee Bank from obligations before the expiry of the term of validity of the letter of financial bank guarantee;
e) to provide the financial resources necessary to debit its account opened at the settlement Bank in the amount requested by the direct debit instructions, at the deadlines stipulated in the SEPA Direct Debit Mandate and to communicate to the TSO/third party designated by the TSO the bank account in which it wishes to charge the value of the sales transactions on the BM;

f) to make sure that the amount of the letter of bank guarantee covers the amount of the purchasing inetntions and of the payment obligations already undertaken;
g) to make sure that the values in the offer reflect their own interest prior to placing the offer in the trading system;
h) to make sure that the offers submitted to the BM have been placed in the trading system;
i) to accept as firm commitments the Transaction Confirmations and the Notifications related to the transactions on the balancing market of natural gas;
j) to pay in full the equivalent of the payment obligations related to tariff for management/trading on the BM;
k) the participant to the BM is directly responsible for the confidentiality of the identification data received from the TSO for accessing the trading platform;
l) if its own identification data contained in the Convention are amended, to conclude with the TSO an addendum to this Convention recording the changes made.
m) to conclude the Convention with the third party designated by the TSO within maximum 5 days from the notification received in this respect from the TSO;

Art. 5 The rights of the TSO/third party designated by the TSO are the following:

a) to receive from the Participant to the BM, by email, the scanned SEPA Direct Debit Mandate and the identification data of the bank account opened with a commercial bank in Romania to be credited with the amount of its collection rights;
b) to receive from the central account Bank the financial letter of bank guarantee issued for the TSO/the third party designated by the TSO, in original, if it is issued by the central account Bank or the swift message of the guarantor bank accompanied by the approval of the central account Bank, if the financial letter of bank guarantee is issued by another bank than the central account bank, no later than 12.00 o'clock, with one (1) bank business day prior to the trading day in which the participant to the BM wishes to submit purchase offers;
c) to monitor the value and the period of validity of the financial letter of bank guarantee and to invalidate the purchase offer/offers introduced by the Participant to the BM if the validity of the letter of bank guarantee

was not extended with the time periods established in the specific procedures prepared by the TSO/third party designated by the TSO and published on its website;

d) to calculate the level of the validation guarantee amount and the available value, to validate the offer(s) submitted / introduced by the Participant to the BM and invalidate the purchase offer (s) whose value exceeds the amount of the collateral available under specific procedures developed by the TSO/ third party designated by the TSO and published on its website;

e) to send every working bank day to the central account Bank a direct debit instruction, corresponding to the value of the daily net payment obligations (including the VAT equivalent) of the participant to the BM, recorded in the Daily Settlement Note;

f) to send the application for the execution of the financial bank guarantee letter to the central account Bank, in the event that it receives from the central account Bank denial reports due to lack of funds on the BM participant's account and refuse to reduce its value requested by the Participant to the BM if the amount resulting from the reduction does not cover its payment obligations;

g) to issue and transmit the monthly invoice to the BM participant who has engaged in gas purchase transactions (including the VAT value);

(g^1) to issue and transmit the monthly/annual invoice/invoices to the BM participant for the amount of the managing/trading tariff on the BM (including the VAT value);

h) to collect the equivalent of the rights to collect related to the tariff for managing/trading on the BM (including the VAT value);

i) to decide, as the case may be, in accordance with the regulations in force, suspension from trading or revocation of the participant's registration in the BM;

j) to receive information from the participant to the BM on any change of its identification data from the Trading Registry, supported by justifying documents in this respect, and to sign with the participant an Addendum to this Convention that will record the changes occurred;

k) to transmit the information requested by the authorised public authorities or courts of law on the participant to the BM, without the consent of the latter if required by the Convention, applicable laws and / or regulations.

Art. 6 The obligations of the TSO/the party designated by the TSO are the following:

a) to ensure a trading environment in a fair, objective, independent, correct, transparent and non-discriminatory manner, in accordance with the applicable primary and secondary legislation;
b) to provide assistance to the BM participant and practical training sessions on the use of the BM trading platform;
c) to provide the participant to the BM "The BM Participant's Guide" and to inform it in due course of its modification by means of information messages published on the main page of the TSO's website;
d) Abrogated
e) to validate the sales/purchase offers submitted by the participant to the BM in accordance with the provisions of the regulations in force;
f) to automatically notify the BM participant about the rejection of a natural gas bid through the BM trading platform;
g) to make available to the BM participant who has placed gas bids on the BM the Confirmations of Transactions and the Daily Settlement Notes for the gas transactions performed, including by means of alternative communication channels (e-mails) in the notification to the BM participant of its impossibility to access the trading platform;
h) to make available to the BM participant the Physical Notices corresponding to the transactions concluded on the BM;
i) to notify the participant to the BM via alternative communication channels about the impossibility of using the usual ways of communication or the non-functioning of the trading system as well as the resumption of trading and to publish the reasons for the accidental interruption of the trading session;
j) to pay in full the equivalent of the net collection rights related to the daily gas sales made by the BM participant by sending the payment orders in favour of the BM participant and document, monthly, the collection of the mutual settlement obligations, in equal amount;
k) Abrogated
l) to update the Trading Registry of the BM with the data of the participant registered with the BM;
m) to publish on its website the secondary legislation on the organisation and functioning of the BM as well as the specific procedures in force.

IV. SUSPENSION FROM THE GAS BALANCING MARKET

Art. 7 - (1) The following situations constitute instances of non-fulfilment of the obligations and lead to the suspension from the gas balancing market, for a period of 30 days, including, without limitation:

a) if, within a period of 1 (one) month, the activity of the participant to the BM determines in this market more than 3 (three) payment denials (due to lack of funds in the account) for the direct debit instructions transmitted and execution of the financial guarantee instrument established for participation in the trading sessions organized on this market;
b) the failure to observe the deadlines for transmission of invoices for the sold gas;
c) if the Participant to the BM violates the provisions of this Convention on this market and / or the provisions of the specific procedures for the operation of the BM, including but not limited to the obligation of the Participant to assume the obligations related to the outcome of the trading session in which concerns the quantity and the closing price of the market.

(2) If the participant to the BM cannot prove that he has corrected the causes that led to his suspension from trading on the gas balancing market, it is suspended from the gas balancing market until the end of the situation that caused such suspension.

V. FORCE MAJEURE

Art. 8 - (1) Force majeure is any external, unpredictable, absolutely invincible and inevitable event.
(2) The liability of the parties is removed when the damage is caused by force majeure, under the conditions of art. 1351 of the Civil Code.
(3) The party invoking a case of force majeure shall notify the other party, within 48 hours of its occurrence, of a notification followed by the return of the supporting document, issued in accordance with the legislation in force, within 20 calendar days from the same date.
(4) If force majeure does not cease within 30 calendar days, the Parties shall have the right to request the termination of the contract, without any of them having the right to claim compensatory damages.

VI. CONFIDENTIALITY

Art. 9 – (1) Each Party undertakes to preserve the confidentiality of all data, documents and information obtained from the performance of this Convention and not to disclose it to a third party, in whole or in part, without the written consent of the other Party.

(2) The following data, documents and information items are excepted from the provisions of paragraph (1):

a) those that may be disclosed in accordance with the legislation in force;
b) those requested by the competent bodies of the state, based on a legal obligation to inform;
c) those considered to be non-confidential, according to the legislation in force.

(3) The provisions of this Article shall remain in force for a period of 5 (five) years after the expiry of this Convention.

VII. FINAL PROVISIONS

Art. 10 - In the event that after the conclusion of this Convention, the content of the Convention is amended/supplemented with ANRE's approval, the Parties undertake to comply with the Convention, as amended/supplemented with ANRE's approval.

Annex no. 1[4]

(to the Network Code for
The Natural Gas National Transport System - NTS)

The trading procedure on the natural gas balancing market

Art. 1 Principles of the natural gas balancing market

(1) The adhesion to the balancing market is done by signing the Contract of balancing and access to the VTP.
(2) On the balancing market, the TSO/the third party designated by the TSO is counterparty in all transactions concluded. Effective participation in trading is anonymous and allowed to the participants to the BM who wish to introduce purchase offers within the limits of the validation guarantees calculated before the beginning of the trading session.
(3) NUs must place orders for sale and purchase in the day D+1, for the gas day D-1, only in the sense and within

the limit of the daily imbalance communicated by the TSO, namely selling in the case of surplus and purchase in the case of deficit.
(3[1]) The bids meant for transactions related to the products for the day D and D+1 may be placed in both directions.
(4) The offer consists of a price-quantity pair offered for purchase or for sale which represents the firm commitment of the participant in the balancing market.
(5) For the sale bids, the quantity offered is the largest quantity offered for sale and the offer price is the lowest price at which the quantity may be sold.
(6) For the purchase offers, the quantity offered is the highest quantity requested for purchase and the bid price is the highest price at which the quantity may be bought.
(7) In the automatic process of matching offers and establishing transactions made by the trading system of the balancing market, the bid may be wholly or partially correlated.
(8) For the gas day D-1 participants may enter more than one distinct bid, but the total amount of the quantities offered is equal to the daily imbalance communicated by the TSO.

Art. 2 – Organisation of the trading sessions

(1) The trading session is organised for each gas delivery day.
(2) The D-1 Gas Delivery Tool is available in the Balancing Market Trading System for bidding on Day D+1.
(3) The trading sessions are carried aut as follows:

I. The stage of balancing market opening and submission of the offers, between 2:30 p.m. and 5:00 p.m.;

II. The stage of transaction closing between 5.00 p.m. and 5.15 p.m..

Art. 3 - Stage of balancing market (BM) opening and bid submission

(1) Starting with 2.30 pm, the participants interested in participating in the trading session enter their own bids into the BM trading system by specifying the quantity of natural gas and the offered price.
(2) The bids submitted by the BM participant represent firm commitments of the respective BM participant, who is directly responsible for the accuracy of the input data.
~~(3) In order to allow for the submission of purchase bids, the BM participant must submit to the TSO a Direct Debit Mandate Contract and the guarantee instrument in favour of the TSO within the deadlines and conditions stipulated in the Specific Procedures developed by the TSO and published on their own website.~~

(4) The trading system automatically compares the quantity of each purchase/sale bid of the products related to day D-1 with the amount and position of the initial daily imbalance of the NU and automatically invalidates the bid if the quantity or the sum of the bids entered up to that point, in case the NU has introduced more than one bid, exceeds the quantity associated with the initial daily imbalance of the NU or is not introduced pursuant to the imbalance, i.e. purchase bid in case of "deficit" or sale bid in case of "surplus".

(5) The trading system automatically compares the value of each purchase offer introduced calculated as a product, between the offered price and the offered quantity with the validation/available guarantee related to the BM participant and automatically invalidates the bid if its value exceeds the value of the validation guarantee available.

(6) The participants in the BM whose bids have been invalidated are notified via automatic trading system messages, which may take any of the following measures:

a) to introduce a modified bid so that the total quantity offered does not exceed the amount of the daily imbalance and / or the value of the bid does not exceed the available validation guarantee, as appropriate;
b) Abrogated
c) to modify and / or cancel previously submitted bids using the features available through its own interface provided via the BM trading system so as to create the possibility of placing a new bid on the market to meet conditions of acceptance.

(7) Throughout this stage, the BM participants can enter, modify, suspend for further reaction, or cancel their existing bids in the trading system.
(8) The BM trading system automatically allocates to each bid a unique identification number and a time stamp of the form "hh: mm: ss" specifying hour (h), minute (m) and second (s) of the bid entry, visible in the Report / History section of the BM participant's interface.
(9) In the event of a bid being modified, the trading system shall automatically update the data relating to the new bid with the time stamp corresponding to the change in the initial bid. This change may have consequences for the placing of the bid on the market as a whole, because in the case of bids offering the same price, the ranking is made according to the time stamp.
(10) The introduced and validated bids are updated and ordered automatically by the trading system, in real time, based on the best price, increasing for the sale bids and decreasing for the purchase bids and based on the time stamp within the same type of bids with the same price.
(11) All participants in the BM may view in the trading system, at any time of the trading session, purchase bids

and sales bids ranked based on the price, while keeping anonimous the participants who have submitted such bids. The own bids are clearly marked on the participant's screen.
(12) The BM trading system records and keeps track of all bids submitted and related actions (introduction, modification, suspension, cancellation, matching). They are kept in electronic format and the reports for the last trading year are available to the BM participant.
(13) The transactions are not concluded at this stage of bid submission. The trading system calculates and automatically displays, on the basis of active bids, the balance price and surplus bid. This information is updated automatically each time an order is placed / modified / withdrawn / cancelled.
(14) At the end of this stage, at 5.00 p.m., the participants in the BM are restricted, so no new orders can be placed, respectively the active orders in the trading system can no longer can be modified, suspended and / or cancelled.

Art. 4 - Stage of trading closing

(1) After the closure of the bidding phase, the BM trading system establishes by a correlation algorithm that automatically applies the balancing price, called the closing price of the market;
(2) All active bids related to the D-1 gas supply day are compared to establish compatible bids and to enter into transactions for compatible bids;
(3) Compatible offers for the conclusion of transactions are automatically established by the BM Trading System, i.e. the bids with higher prices or prices at least equal to the CPBM and bids with prices lower or no more than the CPBM.
(4) Compatible bids are traded at the CPBM.
(5) In the case of a surplus bid equal to zero, all orders for sale are traded at a price less than or equal to the CPBM and purchase orders at or above the CPBM price are traded.
(6) In the event of a surplus bid other than zero, active market orders are traded as follows:

a) all bids that have higher prices than the CPBM;
b) all sales bids that have lower prices than the CPBM;
c) if a positive bid surplus is recorded, orders that have the same price as the CPBM are executed as follows:
   i) all sales orders;
   ii) purchase orders ranked in the order of the time stamp until the total quantity bought is equal to the total quantity sold.

d) if a negative bid surplus is recorded, orders that have the same price as the CPBM are executed as follows:
   i) all purchase orders;
   ii) sales orders ranked in the order of the time stamp until the total quantity sold is equal to the total quantity bought.

(7) The TSO/third party designated by the TSO makes available to the BM participants, via the trading system, the transaction confirmation and the daily settlement notes after the closure of the transaction.
(8) The TSO/third party designated by the TSO prepares daily, for each participant to the BM which has recorded transactions for the sale or purchase of natural gas, the Daily Settlement Note, corresponding to the traded delivery gas day, containing the following information:

a) the gas quantities corresponding to sales/purchases for the delivery gas day;

b) the market closing price, with the specification of the gas price without the included services;

c) the gas sales/purchases values for a delivery gas day;

d) the VAT, if applicable;

e) the value of the daily cashing rights/payment obligations.

ANNEX 2

(to the Network Code for the National Gas Transmission System)

Statement of the Network User

Pursuant to the provisions of the Network Code for the National Gas Transmission System, I hereby declare that this application for capacity afferent to each entry/exit point of the national gas transmission system is compliant with:

a) the contracts entered into with the own portfolio clients;

b) the storage contracts;

c) own consumption demand.

Network User Date:

……

Authorized representative

Signature: ……

ANNEX 3

(to the Network Code for the National Gas Transmission System)

Application for Capacity

I. Applicant

NU: ……

[name and identification data of NU]

Contact person for this Application: ……..

II. Capacity period

The capacity is requested for the period: ……

[1]. [Gas day]; [month]; [year], 6.00 a.m. – 1. [gas day]; [month]; [year], 6.00 a.m.

III. Information regarding the capacity

The capacity is requested for the following entry/exit point/points:

Entry points

Item no	MP (metering point)* Code	MP* Denomination	Capacity
			MWh/day
1.	[code]	[name]	[value]

* Physical entry point.

Exit points

Item no	MRS* Code	MRS* Denomination	Capacity
			MWh/day
1.	[code]	[name]	[value]

* Physical exit point.

The gross calorific power taken into account for the capacity conversion in MWh/day shall be established as weighted average against the gas volumes of gross calorific powers metered during the previous calendar year for each considered point.

Out of the capacity requested at the exit points, the following shall be with emergency interruptible supply:

Item no	MRS* Code	MRS* Denomination	Capacity
			MWh/day
1.	[code]	[name]	[value]

The Network Code for the National Gas Transmission System

Processed version

* Physical exit point.

IV. Additional information

For the capacity at entry points:

1. NU Clients must be specified.

2. Statements compliant with the model of Annex no 2 to the Network Code for the National Gas Transmission System shall be enclosed.

Network User Date:

……

Authorized representative

Signature: ……

ANNEX no 4

(to the Network Code for the National Gas Transmission System)

Notification

☐ of approval / ☐ of rejection

Following your Application no …, registered under no …

☐ We hereby notify the booking of the following capacity is approved:

☐ Pursuant to Art. 43(2) of the Network Code for the National Gas Transmission System, we hereby notify that the booking of the following capacity is rejected:

Entry points

Item no	MP* Code	MP* Denomination	Capacity
			MWh/day
1.	[code]	[name]	[value]

* Physical entry point.

Exit points

Item no	MRS* Code	MRS* Denomination	Capacity
			MWh/day
1.	[code]	[name]	[value]

* Physical exit point.

TSO — Date: ……

Authorized representative — Signature: ……

Processed version

ANNEX no 5

(to the Network Code for the National Gas Transmission System)

Transmission Schedule

We hereby notify you with regard to our annual transmission schedule, according to the provisions of the Network Code for the National Gas Transmission System. For this purpose, please find below the monthly quantities, agreed with the producers, suppliers, storage operators, distribution operators, direct clients, which will constitute the object of the transmission contract for the period …, as follows:

Entry points

	MPP* Code			Quantity *MWh*

Processed version

Item no		MP* Denomination		July	August	September	October	November	December	January	February	March	April	May	June
1.	[code]	[name]	[name]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]

* Physical entry point.

Exit points

	MRS* Code			Quantity *MWh*

Processed version

Item no		MRS* Denomination		July	August	September	October	November	December	January	February	March	April	May	June
1.	[code]	[name]	[name]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]

* Physical exit point.

The gross calorific power taken into account for the capacity conversion in MWh shall be established as weighted average against the gas volumes of gross calorific powers metered during the previous calendar year for each considered point.

Please take note that this transmission schedule is mandatory for the gas year [ ], except when it is modified by us, in writing, based on the Network Code Terms and Conditions.

Processed version

Network User

Authorized representative

Date: .....

Signature: .....

Processed version

ANNEX no 6

(to the Network Code for the National Gas Transmission System)

Notification on changing the transmission schedule no .....

of .....

We hereby notify you with regard to the modification of our annual transmission schedule, according to the provisions of the Network Code for the National Gas Transmission System. For this purpose, please find below the new quantities taken into account:

Entry points

	MP* Code			Quantity *MWh*

Processed version

Item no		MP* Denomination		July	August	September	October	November	December	January	February	March	April	May	June
1.	[code]	[name]	[name]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]

* Physical entry point.

Exit points

	MRS* Code			Quantity *MWh*

Processed version

Item no		MRS* Denomination		July	August	September	October	November	December	January	February	March	April	May	June
1.	[code]	[name]	[name]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]	[value]

* Physical exit point.

Network User

Authorized representative

Date: .....

Signature: .....

ANNEX no 7

(to the Network Code for the National Gas Transmission System)

Nomination/Re-nomination/~~I~~DN

Entry points

Item no.	Code PM/VPM* Name	PM/VPM* Name	Name of NU	Nominated quantity for dd/mm/yy MWh
				Total of which:
1.	[code]	[name]	[name]	[amount]
2.	[code]	[name]	[name]	[amount]
… . n.	[code]	[name]	[name]	[amount]

* Physical/virtual entry point.

Exit points

Item no.	MRS* Code	MRS* Name	Name of NU	Nominated quantity for dd/mm/yy MWh
				Total of which:
1.	[code]	[name]	[name]	[amount]
2.	[code]	[name]	[name]	[amount]
… n	[code]	[name]	[name]	[amount]

* Physical exit point.

The gross calorific powers taken into account when preparing the nomination/re-nomination are those available on the TSO webpage on the date of the relevant request, also calculated and published according to the provisions of the Regulation for metering the gas quantities traded in Romania, approved by Order no 62/2008 of the Romanian Energy Regulatory Authority president, as subsequently amended.

□We hereby ascertain that this is the only nomination/re-nomination for the gas week/day [dd/mm/yy] and, at the same time, we reserve the right to make a re-nomination, according to the Network Code provisions.

□We hereby ascertain that this is the only nomination/re-nomination for the gas week/day [dd/mm/yy]

We hereby declare that the nomination/re-nomination is compliant with the contracting obligations pursuant to own client portfolio.

We are waiting for your approval in relation to the above mentioned values.

Network User Date:

……

Authorized representative

Signature: ……

ANNEX no 7[1]

(to the Network Code for the

National Gas Transmission System)

Nomination/Re-nomination/~~IDN Confirmation~~

Puncte de intrare

Item no.	Code PM/VPM*	Name PM/VPM*	Name of NU	Approved nominated quantity for dd/mm/yy MWh Total of which:	Reason for the adjustment**
1.	[code]	[name]	[name]	[amount]	
2.	[code]	[name]	[name]	[amount]	
… n	[code]	[name]	[name]	[amount]	
				Traded quantity with a VTP notification (purchase) related to dd/mm/yy MWh	
1.	VTP		[name]	[amount]	
2.	VTP		[name]	[amount]	
... n	VTP		[name]	[amount]	

* Virtual/physical entry point

** Specify the reason for the adjustment, that is:

E –imbalanced nominations entry/exit (only if the nominations are sent by alternative channels);

M – Application of the correlation procedure.

Exit points

Item no.	MRS* Code	MRS* Name	Name of the NU	Nominated quantity for dd/mm/yy MWh Total Of which:	Reason for the adjustment**
1.	[code]	[name]	[name]		
2.	[code]	[name]	[name]		
… n	[code]	[name]	[name]		
				Traded quantity with a notification at the VTP (sale) for dd/mm/yy MWh	
1.	VTP		[name]	[amount]	
2.	VTP		[name]	[amount]	
... n	VTP		[name]	[amount]	

* Physical exit point.

** Specify the reason for the adjustment, that is:

E –imbalanced nominations entry/exit (only if the nominations are sent by alternative channels);

M – Application of the correlation procedure.

□ We hereby confirm that this is the nomination/re-nomination for the gas day [dd/mm/yy].

ANNEX no 8

(to the Network Code for the National Gas Transmission System)

Capacity Transfer Request in the entry points in the NTS

A. [this section of the capacity transfer request will be filled in by the NU who wishes to transfer transmission capacity to another NU]

The undersigned …….. [name and identification data of NU], party to the Transmission Contract no ……., signed by …… [NU name] and ……[TSO name] on …… [fill-in the date], as **Transferring NU**, hereby request the transfer, starting with …….. [fill-in the date]/for the period ……[fill-in the period for which the transfer is requested] to ……[the name/NU/the applicant beneficiary of the transfer] of the following transmission capacities:

Item no,.	Code PM/VPM*	Name PM/VPM*	Capacity offered for transfer (MWh/day)			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

*Phyisical/virtual entry point.

Please find attached the proposal related to the transmission schedule applicable if the transfer is approved.

Considering the above mentioned specifications, please take note that if the transfer request is approved modify accordingly the levels of the booked capacity provided in the transmission contract no. (fill in the contract number concluded by the transferring NU and theTSO).

This Capacity Transfer Request is based on the following grounds …….. [fill-in the relevant grounds]

Transferring NU Date: ……

Authorized representative Signature: ……

B. [this section of the capacity transfer request will be filled in by the Transfer beneficiary NU]

The undersigned …….. [name and identification data of NU], party to the Transmission Contract no ……., signed by …… [NU name] and ……[TSO name] on …… [fill-in the date], the text in italics will not be

inserted in the transfer request if the transfer beneficiary NU did not conclude a transmission contract with the TSO on the date of the transfer request) as **Transfer Beneficiary NU**,

a) Agree to take over from…….[name and identification data of the transferring NU], the following transmission capacities:

Entry points

Item no	MP* Code	MP* Denomination	Capacity accepted to be transferred MWh/day			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

* Physical/virtual entry point.

b) I do not agree to take over from…….[name and identification data of the transferring NU], the following transmission capacities:

Item no	MP* Code	MP* Denomination	Capacity accepted to be transferred MWh/day			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

* Physical/virtual entry point.

Please find attached the proposal related to the transmission schedule applicable if the transfer is approved.

Considering the above mentioned specifications, please take note that if the transfer request is approved modify accordingly the booked capacity levels provided in the transmission contract no. (fill in the contract number concluded by the transferring NU and the TSO)/ *send us to sign the transmission contract related to the transferred booked capacities* (the text in italics will be inserted in the transfer request if the applicant

beneficiary of the transfer does not have a transmission contract concluded with the TSO on the date of the transfer request).

This Capacity Transfer Request is based on the following grounds ..... [fill-in the relevant grounds]

NU benefiting of the transfer Date: .....

Authorized representative Signature: .....

ANNEX no 8[1]

(to the Network Code for the National Gas Transmission System)

Capacity Transfer Request in the exit points out of the NTS

A. [this section of the capacity transfer request will be filled in by the NU who wishes to transfer transmission capacity to another NU]

The undersigned …….. [name and identification data of NU], party to the Transmission Contract no ……., signed by …… [NU name] and ……[TSO name] on …… [fill-in the date], as Transferring NU, hereby request the transfer, starting with …….. [fill-in the date]/for the period ……[fill-in the period for which the transfer is requested] to ……[the name/NU/the applicant beneficiary of the transfer] of the following transmission capacities:

Item no,.	MRS*Code	MRS* Name	Capacity offered for transfer (MWh/day)			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

*Physical exit point

Of which the following interruptible capacity in case of supply in emergency situations:

Item no,.	MRS*Code	MRS* Name	Capacity offered for transfer (MWh/day)			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

*Physical exit point

Please find attached the proposal related to the transmission schedule applicable if the transfer is approved.

Considering the above mentioned specifications, please take note that if the transfer request is approved modify accordingly the booked capacity levels provided in the transmission contract no. (fill in the contract number concluded by the transferring NU and the TSO.

This Capacity Transfer Request is based on the following grounds …….. [fill-in the relevant grounds]

Transferring NU Date: ……

Authorized representative Signature: ……

B. [this section of the capacity transfer request will be filled in by the NU/ transfer beneficiary]

The undersigned …….. [name and identification data of NU], party to the Transmission Contract no ……., signed by …… [NU name] and ……[TSO name] on …… [fill-in the date], the text in italics will not be inserted in the transfer request if the transfer beneficiary NU did not conclude a transmission contract with the TSO on the date of the transfer request) as **Transfer Beneficiary NU**,

a) Agree to take over from…….[name and identification data of the transferring NU], the following transmission capacities:

Item no	MRS* Code	MRS* Name	Capacity accepted to be transferred MWh/day			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

* Physical exit point.

Of which the following capacity emergency interruptible supply:

Item no	MRS* Code	MRS* Name	Capacity accepted to be transferred MWh/day			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

* Physical exit point.

b) do not agree to take over from…….[name and identification data of the transferring NU], the following transmission capacities:

Item no	MRS* Code	MRS* Name	Capacity refused to be transferred MWh/day

			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

* Physical exit point.

Of which the following capacity emergency interruptible supply:

Item no	MRS* Code	MRS* Name	Capacity refused to be transferred MWh/day			
			Annual	Quarterly	Monthly	Daily
1.	[code]	[name]	[amount]	[amount]	[amount]	[amount]

* Physical exit point.

Please find attached the proposal related to the transmission schedule applicable if the transfer is approved.

Considering the above mentioned specifications, please take note that if the transfer request is approved modify accordingly the booked capacity levels provided in the transmission contract no. (fill in the contract number concluded by the transferring NU and the TSO / *send us to sign the transmission contract related to the transferred booked capacities* (the text in italics will be inserted in the transfer request if the applicant beneficiary of the transfer does not have a transmission contract concluded with the TSO on the date of the transfer request).

This Capacity Transfer Request is based on the following grounds …….. [fill-in the relevant grounds]

Transfer Beneficiary NU Date: ……

Authorized representative Signature: ……

ANNEX no 8[2]

(to the Network Code for the National Gas Transmission System)

Capacity Transfer Request related to the NU

The undersigned…….. [name and identification data of the NU], party to the transmission contract no. [ ] concluded between …….[name of the NU], and …….[name of the TSO], on …….. [fill in the date], hereby request the capacity transfer between the following NTS entry/exit points , starting with ……. [fill in the date]/ for the period ……[fill in the period for which they request the transfer].

Entry points

Item no.	Entry point from which it is transferred		Entry point to which it is transferred		Transferred capacity (MWh/day)	Transferred capacity type (annual, quarterly, monthly, daily)
	PM/VPM* code	PM/VPM* name	PM/VPM* code	PM/VPM* name		
1.	[code]	[name]	[code]	[name]	[amount]	[capacity type]

***** Virtual/physical entry point.

Exit points

Item no.	Exit point from which it is transferred		Exit point to which it is transferred		Transferred capacity (MWh/day)	Transferred capacity type (annual, quarterly, monthly, daily)
	MRS* code	MRS * name	MRS* code	MRS * name		
1.	[code]	[name]	[code]	[name]	[amount]	[capacity type]

*Physical exit point.

Please find attached the proposal related to the transmission schedule applicable if the transfer is approved.

Considering the above mentioned specifications, please take note that if the transfer request is approved

modify accordingly the booked capacity levels.

This Capacity Transfer Request is based on the following grounds …….. [fill-in the relevant grounds]

Transfer Beneficiary NU Date: ……

Authorized representative Signature: ……

ANNEX no 9

(to the Network Code for the National Gas Transmission System)

TECHNICAL REQUIREMENTS FOR OPERATION OF GAS QUANTITY METERING POINTS AT NTS ENTRY/EXIT

Chapter. 1 General Requirements

1.1. *The Technical requirements for operation of gas quantity metering points at NTS entry/exit,* hereinafter referred to as the **Technical Requirements**, are part of the *Network Code* and they stipulate:

a) the rights and obligations of TSO, NU , related to the operation of NTS entry/exit points;

b) the data exchange between TSO, NU, data required to operate and use NTS under security and efficiency conditions;

c) the methods and tools for traded gas quantities metering (meters/metering systems);

d) the calculation formulas used to determine the gas quantities;

e) the methods and tools for establishing the gas quality parameters.

1.2. The Technical Requirements shall apply to the relations between TSO and NUs, being part of the Gas Transmission Contract no _____ of _____.

1.3. The terms used in this **Technical Requirements** are defined by the Energy and Gas law no 123/2012, as well as by the *Network Code*.

Chapter 2. Operation of NTS entry/exit points

2.1. NTS entry/exit points belonging to TSO shall be operated by TSO by complying with the work procedures drafted according to the *Quality Assurance Manual* and the industry specific legislation, while the said operation consists, mainly, of the following activities:

a) Ensuring the safe, secure and continuous supply of the whole technological installation and afferent equipments, by performing their operation and maintenance with authorized qualified personnel;

b) Operating the technological installation in order to ensure the parameters established for pressure, flow and odorization level;

c) Metering and determining the gas quantities via the metering systems at NTS entry/exit points;

d) Adapting the composition and configuration of metering system to the gas pressure and flow requirements, according to the transmission contract provisions concerning the approved capacity;

e) Conducting a regular metrological control of the metering systems based on the provisions of legislation in force and on the specifications of Chapter 4 of the present **Technical Requirements**;

f) Up to date keeping and filling-in the Instruction Book of the technological installation afferent to NTS entry/exit point, which must include as minimum:

(1) a general description of the technological installation, specifying the technical characteristics and the commissioning year;

(2) the technological diagram of the technological installation;

(3) the geometric configuration of the meter board, specifying its sizes;

(4) the metering system used, specifying the technological and metrological characteristics of all components;

(5) designation of operation areas, highlighting the areas classified as hazardous areas;

(6) the documents ascertaining the metering system compliance with the metrology legislation requirements in force;

g) Ensuring the metering security by:

(1) sealing the metering systems according to the sealing diagram included in the model approval;

(2) air-tight insulating the back-up metering lines, if applicable, by closing and sealing the valves;

(3) complying with the operating requirements of the installation and metering systems assembly, by sealing all valves in the fully closed or fully opened position, as applicable;

(4) protecting by software passwords all data recorded by the flow computers;

(5) protecting and sealing all device and transducer sub-assemblies which may be deranged during operation and may affect the gas metering result.

h) Ensuring the security, integrity and safety of the technological installation afferent to NTS entry/exit point;

i) Ensuring the measures for labor protection, for fire protection and safety and the environment measures according to the relevant legislation in force.

j) Maintaining the calibration log integrity and filling-in this log according to the principle: `*As found, as left*`.

k) Maintaining the integrity of the *configuration log* and the *damage log* and filling-in these logs.

2.2. The rights and obligations of TSO and NU shall be those set forth by the Gas Transmission Contract and the *Network Code.*

2.3. For the purpose of executing the transmission contracts, in the contracts concluded by NU and its partners, NU shall set forth the obligations related to the operation of gas quantity metering points and to the data exchange between such partners.

2.4. For the purpose of operating the gas quantity metering points at NTS entry, TSO, NU and NU partners shall have the following specific obligations:

A. NU partners – producers, importers, SSO - in relation to TSO shall have the following obligations:

(1) Upon the written request of TSO, to enable TSO designated representatives' access inside the premises of the technological installations for the metering systems control and the metrological control of their components, in the presence of NU and/or its partners;

(2) To notify TSO with regard to the scheduled modification of technological regime for gas delivery, with minimum 24 hours in advance;

(3) To deliver gas in NTS only at the points where NU has booked capacity;

(4) To notify TSO, as soon as possible, with regard to the occurrence of damages affecting the NTS technological regime, as well as with regard to the taken remedy measures.

B. Relative to NU and its partners, TSO shall have the following obligations:

(1) To notify NU and its partners – producers, importers, SSO – with minimum 24 hours in advance, with regard to the modification of technological regime of gas taken over for transmission purposes;

(2) To notify as soon as possible the producer, importer, SSO, as applicable, with regard to the occurrence of special situations in NTS functioning, affecting the technological regime, as well as with regard to the taken remedy measures;

(3) Upon the written request of NU and/or its partners, to enable their access inside the premises of the technological installations for the metering systems control and the metrological control of their components, in the presence of TSO representatives.

(4) To install one-way flow clack valves, downstream of the metering systems, in all cases where a two-way gas flow is possible and affects the metering.

2.5. For the operation the gas quantity metering points at NTS exit, TSO, NU and NU partners shall have the following specific obligations:

A. Relative to NU and its partners – DSO, SSO, DC - TSO shall have the following obligations:

(1) Upon the written request of NU and/or its partners, to enable their designated representatives access inside the premises of the technological installations for the metering systems control and the metrological control of their components, in the presence of TSO representatives;

(2) To notify NU and its partners with regard to the scheduled modification of technological regimes for gas delivery, with minimum 24 hours in advance;

(3) To notify NU and its partners, as soon as possible, with regard to the occurrence of damages affecting the NTS technological regime, as well as with regard to the taken remedy measures.

B. Relative to TSO, NU and its partners shall notify, as soon as possible, with regard to special situations occurred in the functioning of NTS connected neighbouring systems, affecting the technological regime, and with regard to the afferent remedy measures.

2.6. NTS entry/exit points shall be technically equipped by their owner/operator, on its expense, by complying with the requirements stipulated in the *Regulation for metering the gas quantities traded in Romania* and in Chapter 3 of these **Technical Requirements**.

2.7. NTS exit points shall be operated only by TSO, regardless of their owner, based on the gas transmission system operation license and afferent functioning authorization.

Chapter 3. Metering and determining the gas quantities

3.1. (1) The commercial metering of gas quantities shall be carried out by NTS entry/exit points owner/operator, using metering systems hereinafter referred to as the basic metering systems.

(2) The basic metering systems used must comply with the requirements set forth by the *Regulation for metering the gas quantities traded in Romania.*

3.2. (1) Upon the request of the counterpart, the basic metering systems owner/operator shall allow the counterpart to install own metering systems, hereinafter referred to as the control systems of accuracy class comparable to that of the basic metering systems. These control systems shall be installed so not to influence one another.

(2) The control metering systems shall be installed according to the provisions of the *Regulation for metering the gas quantities traded in Romania.*

(3) Metering with the control systems shall not be opposable to metering with the basic systems.

3.3. The data based on which the NTS entering/exiting gas quantities are determined shall be collected at 6^{00} a.m. of *n* gas day for *n-1* gas day in respect to all the delivery/take over entry and, respectively exit points, as well as for all the metering systems.

3.4. (1) The quantities determined by metering with basic systems shall be recorded in minutes, according to the models from Annexes no 2.1 … 2.7, and shall be communicated to the parties, namely to TSO, NU and its partners, on a daily basis.

(2) With regard to all NTS entry/exit points without control metering system, the basic metering system operator shall make available, upon the counterpart's request, the data and/or diagrams recorded at the latest until the signing of the weekly gas delivery/take-over minutes, according to Annexes no 2.1 … 2.6.

3.5. If the counterparties, due to objective and justified reasons, are unable to agree on the obtained values, the metering systems shall be verified according to Chapter 4 of these **Technical Requirements**.

3.6. (1) The owner/operator of the metering systems, located at NTS entry points, shall compare daily the quantities registered by the basic and the control metering systems (where such systems are installed).

(2) Provisionally, in case of discovering differences between the quantities recorded by the basic meter and those recorded by the control meter, the counterparties shall agree to report the value indicated by the basic meter.

(3) After establishing the causes which generated the difference, if the error is caused by the basic metering system, the value reported based on paragraph (2) shall be amicably corrected within 3 working days. In this case, the corrections shall be applied as of the differences ascertaining date.

(4) If the time when the difference has occurred can not be established or if the counterparties are unable to agree, the correction shall be carried out for a period equal to half of the period passed since the last verification, but without exceeding 30 days.

3.7. (1) With regard to NTS entry points, the producers/SSO, as applicable, shall send to TSO the following information:

a) the recorded gas quantity, on a daily basis until 10.00 a.m.;

b) a copy of the *monthly registration log* of the electronic flow computer, on a monthly basis but the latest until the third working day of the month following the delivery month.

(2) *The monthly registration log* of the electronic flow computer shall represent the basic document used to establish the gas quantities delivered in NTS.

(3) A copy of the *configuration log* of the electronic flow computer shall be sent to TSO together with the *monthly registration log* for the gas flow.

(4) The configuration data of the electronic flow computer shall be entered in the presence of the parties.

3.8. (1) The turbine or turning piston meters, installed at NTS exit points shall be equipped with PTZ gas volume correctors, according to the technical requirements established by the *Regulation for metering the gas quantities traded in Romania.*

(2) The PTZ correctors, mentioned by paragraph (1), shall be set up in the presence of the counterparties.

(3) When installing the turbine meters of the turning piston meters, the lengths of the upstream and downstream sections, established by the *Regulation for metering the gas quantities traded in Romania,* must be observed.

3.9. If due to objective reasons, the basic systems are not compliant with the requirements for gas quantities metering, the counterparties shall mutually agree to perform the commercial metering using the control systems (where such systems are installed), until the said reasons are eliminated, according to the requirements related to metering information access established by Art. 3.4.

3.10. (1) The basic metering system configuration shall be modified in the presence of the counterparties, at a date mutually agreed with at least one day in advance.

(2) The modifications mentioned in paragraph (1) shall be proven by the counterparties signing of the minutes for modifying the basic metering system configuration, drafted according to the model established by Annex no 3.1, respectively Annex no 3.2. Depending on the modification operated in the basic metering system configuration, the calculation values of gas quantities shall be adapted.

(3) The configuration modifications shall be updated in the technical book of the technological installation, stipulated by Art 2.1. letter f).

3.11. (1) The use of mechanical recorders for commercial transactions at NTS entry/exit points is prohibited.

(2) Within maximum 18 months since the *Network Code* enforcement, the NTS entry/exit point operators shall replace the existing mechanical recorders used in commercial transactions.

(3) As exception to the provisions of paragraph (1), the existing mechanical recorders use in commercial transactions shall be allowed for the period mentioned by paragraph (2).

(4) Until the mechanical recorders decommissioning, the provisions of Annex no 5 "Calculation methodology for the mechanical system` shall apply for determining the gas quantities by using such devices.

Chapter 4. Gas metering systems control

4.1. The metrological monitoring and regular metrology control of metering systems shall be conducted according to the applicable metrology regulations and the submission to regular metrological control shall be the owner's responsibility.

4.2. (1) In case of disputes related to the metered gas quantities, the counterparties shall be entitled to request a metrological control of the used systems, in addition to the regular metrological control.

(2) If it is ascertained that the equipments are operating within the allowed range as per accuracy class, the control costs shall be covered by the claimant while the equipment owner shall cover such costs in the opposite case.

4.3. The results of controls conducted based on point 4.2 provisions shall be recorded in control minutes signed by both counterparties, according to the models in Annexes no 4.1 … 4.4.

4.4. Prior to the metering system re-commissioning, the compliance with installation requirements afferent to all metering equipments subjected to control and the restoration of mechanical joints air tightness shall be verified.

4.5. (1) If, during the control of the basic or control metering systems, one of the devices shows an error above the value accepted or specified in the type approval certificate, the device in question shall be immediately recalibrated or replaced.

(2) The basic or control metering devices shall be repaired according to the applicable legal metrology regulations and shall be the owner's responsibility.

Chapter 5 Gas quality

5.1. (1) The gas traded at NTS entry/exit points must comply with the minimum quality requirements established by the legislation in force.

(2) TSO shall be entitled to charge penalties for non-compliance with the quality of gas delivered in NTS.

5.2. (1) The gas quality shall be appraised based on their chemical composition and on the following physical characteristics:

a) gross calorific power and net calorific power;

b) Wobbe index;

c) density;

d) relative density;

e) compressibility factor;

f) water dew point;

g) liquid hydrocarbons dew point;

(2) The mechanical impurities content, as well as the minimum quality requirements of gas accepted to trading are stipulated by the *Regulation for metering the gas quantities traded in Romania*.

5.3. (1) The sampling points required to establish the gas quality shall be those located on the metering system.

(2) The sampling of assays for analysis shall be conducted according to standard SR ISO 10715 – Natural gas. Sampling methods.

(3) If the sampling is conducted for the purpose of dispute settlement, the sampling shall be performed in the presence of the counterparties and by notifying the NU.

5.4. (1) The chemical structure of natural gas, respectively the physical characteristics listed by Art. 5.2, shall be determined by using a lab gas-chromatograph and/or regular gas-chromatographs, according to the provisions of the *Regulation for metering the gas quantities traded in Romania* and of the legal regulations in force.

(2) The gas-chromatographs shall be calibrated using benchmark gas, according to the calibration specifications/procedures established by the chromatograph manufacturer.

(3) The determination time intervals are established by the *Regulation for metering the gas quantities traded in Romania*, except when the parties agree otherwise.

5.5. The liquid hydrocarbon, hydrogen sulphide, mercaptan sulphur and, implicitly, total sulphure dew point shall be determined using gas-chromatographs or specific analysis equipments.

5.6. (1) The water and liquid hydrocarbon dew point shall be determined on pressure and temperature conditions existing at NTS entry point.

(2) NU and/or its partners – the producer, importer, SSO – shall ensure at NTS entry points:

a) a water dew point of at least –15 °C at NTS entry point's delivery pressure;

b) a liquid hydrocarbon dew point of at least 0 °C at NTS entry point's delivery pressure.

(3) The values established by paragraph (1) shall be determined on a monthly or quarterly basis, except when the parties agree otherwise.

5.7. (1) The qualitative parameters, regularly determined, shall be deemed valid until the next determination.

(2) In case of automatic determination of qualitative parameters, the daily mean values shall represent the base used to establish the deviations from allowed limits.

5.8. (1) The counterparties' claims related to the energy quantities which are traded shall be settled according to the provisions of the *Regulation for metering the gas quantities traded in Romania.*

(2) In case of disputes related to the quality, the counterparties shall take samples for the arbitrage procedure, which shall be kept until the settlement of disputes.

(3) If an amicable settlement is not reached, the litigation shall be solved according to the legal provisions.

5.9 With regard to the exit points, TSO shall provide qualitative parameters related value data within the time frame agreed with the NU.

Chapter 6 Provision of data required to operate and use the NTS

6.1. The IT platform established by TSO shall ensure the data exchange between TSO, NU and NU partners, exchange required to operate and use NTS under safe and efficient conditions.

6.2. (1) According to the models established in the ***Technical Requirements,*** by weekly (gas week) or monthly (calendar month) minutes concluded with the producers, SOs, DOs and importers, TSO shall record the gas quantities metered at NTS physical entry/exit points.

(2) Following the SCADA programme implementation, upon request, TSO shall enable the access to its own data: flows, pressures, temperatures, etc.

6.3. For each NTS physical entry point, the producer shall provide TSO with the following data:

a) the volumes and gross calorific power for the previous gas day, on a daily basis until 10.00 a.m.;
b) the allocation per NU of gas quantities metered for the previous gas day, on a daily basis until 14.00 p.m.;
c) the metered gas quantities, gross calorific power and afferent energy recorded by weekly (gas week) and monthly (calendar month) minutes concluded by the counterparties, according to the model of Annex no 2.1;
d) hourly pressures – communicated by phone or e-mail;
e) the flow impulses of the metering systems requested by TSO for the purpose of adequate odorization;

f) TSO's access to its own SCADA data: flows, pressures, temperatures, etc. – following the implementation of SCADA programmes.

6.4. For each physical entry/exit point of the storage facility, the SSO shall communicate to TSO the following data:

a) the injection schedule for the period between April – September, until March the 15th;

b) the withdrawal schedule for the period between October – March, until September the 15th;

c) the monthly injection/withdrawal schedule, at the latest with 5 days prior to the delivery month beginning;

d) the nominations/re-nominations for each NU, according to the Network Code provisions;

e) the volumes and gross calorific power, on a daily basis until 10.00 a.m.;

f) the allocation per NU of gas quantities metered for the previous gas day, on a daily basis until 14.00 p.m.;

g) the final data – volumes and gross calorific power – for all relevant points with allocation per each NU, after the calendar month end;

h) for each entry/exit point of the storage facility, SSO shall provide TSO with the following data:

- the metered gas quantities, gross calorific power and afferent energy recorded by weekly (gas week) and monthly (calendar month) minutes concluded by the counterparties, according to the model of Annex no 2.3;
- hourly flows and pressures – communicated by phone or e-mail.

i) the flow impulses of the metering systems requested by TSO for the purpose of adequate odorization;

j) TSO's access to its own SCADA data: flows, pressures, temperatures, etc. – following the implementation of SCADA programmes.

6.5. The distribution operators shall communicate to TSO the following data:

a. the distribution schedule at NTS exit points:

- per gas year with monthly split (until May 15th);
- per calendar year with monthly split (until October 15th);
- monthly (within the latest 5 days prior to the delivery month beginning).

b. the quantities allocated per each NU at NTS exit points for the previous gas day, on a daily basis until 14.00 p.m., according to the *Network Code* provisions;

c. the final volumes allocated per NU at all NTS exit points, after the calendar month end.

d. Within maximum 2 days, to record the gas quantities metered at NTS physical exit points in weekly (gas week) and monthly (calendar month) concluded with the TSO, according to the model of Annexes no 2.4 and 2.5.

6.6. The importer shall communicate to TSO the following data:

a) the import schedule for NTS entry points;
   - per gas year with monthly split (until May 15th);
   - per calendar year with monthly split (until October 15th);
   - monthly (within the latest 5 days prior to the delivery month beginning).

b) the nominations/re-nominations for each NU, according to the Network Code provisions.

c) the quantities allocated per NU for the previous gas day, on a daily basis until 14.00 p.m., according to the Network Code provisions.

d) the final volumes allocated per NU at all NTS entry points, after the calendar month end.

e) to record the gas quantities metered at NTS physical entry points in weekly (gas week) and monthly (calendar month) concluded with the TSO, according to the model of Annex no 2.2.

Annex no 1

(to the Technical Requirements)

Conversion formulas. Equivalence to other frequently used measure units.

When applying the provisions of these **Technical Requirements,** other measure units are also allowed as follows:

1) For pressure.

In IS, the measure unit for pressure is the Pascal (*Pa*) 1 *Pa* = 1 N/m^2

The conversion formulas when using other allowed measure units are indicated by the table below

Pressure MU	*Pa* (N/m^2)	*bar*	*mm Hg* (1 *Torr*)	*mm* H_2O	*at (technical atmosphere), Kgf/cm²*	*atm (standard atmosphere)*
Pa (N/m^2)	1	10^{-5}	7.50064 x 10^{-3}	0.101972	1.01972 x 10^{-5}	0.98692 x 10^{-5}
bar	10^5	1	750.064	1.01972 x10^4	1.01972	0.98692
mm Hg (1 *Torr*)	133.322	1.33322 x 10^{-3}	1	13.5951	13.5951 x 10^{-4}	1.31579 x 10^{-3}
mm H_2O	9.80665	9.80665 x 0^{-5}	0.073556	1	10^{-4}	9.67837x10^{-5}
at (technical atmosphere), Kgf/cm²	9.80665 x 10^4	0.98066	735.559	10^4	1	0.967841

atm (standard atmosphere)	10.1325 x 10^4	1.01325	760	1.03323 x 10^4	1.03323	1

2) For temperature

In IS, the measure unit for temperature is the *Kelvin* (K)

The conversion formulas when using other allowed measure units:

a) from degrees *Celsius* (°C): $T(K) = t(°C) + \mathbf{273.15}$

b) from degrees *Fahrenheit* (°F): $T(K) = [t(°F) + \mathbf{459.67}]/\mathbf{1.8}$

3) For volume.

In IS, the measure unit for volume is m^3.

Based on these **Technical Requirements**, one cubic meter m^3 represents the gas quantity occupying the volume of a cube with 1 m side in basic conditions, established by CA regulations.

Gross calorific power.

The gross calorific power shall be expressed in MWh/m^3 or GJ/m^3.

The combustion temperature is specified by CA regulations.

The calorific power shall be converted according to Standard SR ISO 13443.

Standard state.

The standard state of gas under work conditions is characterized by state P and T variables, as well as by the Z compressibility factor.

The ideal gas law is: $$PV = \nu RTZ$$

where P- absolute gas pressure, expressed in N/m^2

V- gas volume, expressed in m^3

V - amount of substance, expressed in *kmol*

R- ideal gas constant, expressed in *J/kmol K*

T- absolute gas temperature, expressed in *K*

Z- compressibility coefficient (adimensional)

To convert a V gas volume, with certain pressure and temperature conditions, to the cubic meter characteristic state as defined by these **Technical Requirements,** the following formula shall be used:

$$V_r = V \cdot \frac{P}{P_r} \cdot \frac{T_r}{T} \cdot \frac{Z_r}{Z}$$

Annex no 2.1

(to the Technical Requirements)

PRODUCER GAS DELIVERY/TAKE-OVER MINUTES (PGDTOM) NO .....

(for the gas quantities delivered in NTS)

Concluded this day ..... month ..... year .....between:

…….., as ***PRODUCER***

and

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***.

It is hereby confirmed that during the period between ..... a total gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over via the meter boards, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.
- the gas quantities mentioned by the Annex are those acknowledged by the NU.

REMARKS .....

DELIVERED,	**TAKEN-OVER,**
SUBUNIT …	**SUBUNIT …**
…….	**…….**
PRODUCER'S REPRESENTATIVE	**TSO REPRESENTATIVE**
Name ……	Name …….
First name ……	First name …….
Signature	Signature

This Minutes was drawn up in 2 counterparts, one for each party.

ANNEX TO PGDTOM no …

Item no	MP Denomination	TOTAL QUANTITY			TOTAL QUANTITY SPLIT PER GAS BENEFICIARIES		
		VOLUME [m^3]	PCS [MWh/m^3]	ENERGY [MWh]	GAS BENEFICIARY NAME	QUANTITY	
						VOLUME [m^3]	ENERGY [MWh]
1					1.1. …		
					1.2. …		
					1.n. …		
2					2.1. …		
					2.2. …		
					2.n. …		
…							
n.					n.1. …		
					n.2. …		
					n.3. …		

DELIVERED, **TAKEN-OVER,**

SUBUNIT … **SUBUNIT …**

PRODUCER'S REPRESENTATIVE TSO REPRESENTATIVE

Signature Signature

…… ……

Annex no 2.2

(to the Technical Requirements)

IMPORTER GAS DELIVERY/TAKE-OVER MINUTES (IGDTOM) NO .....

Concluded this day ..... month ..... year .....between:

....., as ***IMPORTER***[3]

and

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***.

It is hereby confirmed that during the period between ..... a total gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over via the gas metering station, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.
- the gas quantities mentioned by the Annex are those acknowledged by the NU.

REMARKS

[3] In case of several importers:

- the Minutes shall be signed by the importer mandated by the other importers, or

- the Minutes, drawn up in 2 counterparts, shall be signed with each importer.

.....

.....

DELIVERED, **TAKEN-OVER,**

IMPORTER REPRESENTATIVE **TSO REPRESENTATIVE**

Name …… Name ……..

First name …… First name ……..

Signature Signature

This Minutes was drawn up in 2 counterparts, one for each party.

Pcs is $t_{standard\ metering}$ = 15°C and $t_{standard\ burning}$ = 15°C

The volume is at 15°C and the pressure at 1.01325 bar

ANNEX TO IGDTOM no …

Item no	GMS DENOMINATION	TOTAL QUANTITY			TOTAL QUANTITY SPLIT PER GAS BENEFICIARIES		
		VOLUME [m^3]	PCS [MWh/m^3]	ENERGY [MWh]	GAS BENEFICIARY NAME	QUANTITY	
						VOLUME [m^3]	ENERGY [MWh]
1					1.1. …		
					1.2. …		
					1.n. …		

DELIVERED, **TAKEN-OVER,**

IMPORTER REPRESENTATIVE **TSO REPRESENTATIVE**

Signature Signature

…… ……

Annex no 2.3

(to the Technical Requirements)

SO GAS DELIVERY/TAKE-OVER MINUTES (SOGDTOM) NO .....

(for NTS gas intakes/off-takes)

Concluded this day ..... month ..... year .....between:

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***

and

…….., as ***LICENSED OPERATOR OF THE STORAGE SYSTEM (SO)***

It is hereby confirmed that during the period between ..... a total gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over via the metering board, for the purpose of injection/withdrawal in/from the storage facility, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.
- the gas quantities mentioned by the Annex are those acknowledged by the NU.

REMARKS.....

DELIVERED, **TAKEN-OVER,**

SUBUNIT … **SUBUNIT …**

…….. **…….**

TSO REPRESENTATIVE[2] / SO REPRESENTATIVE[3] **SO REPRESENTATIVE[4]/ TSO REPRESENTATIVE[5]**

Name …… Name ……

First name …… First name ……

Signature Signature

This Minutes was drawn up in 2 counterparts, one for each party.

Pcs is at $t_{standard\ metering}$ = 15°C and $t_{standard\ burning}$ = 15°C

The volume is at 15°C and the pressure at 1.01325 bar

ANNEX TO SOGDTOM no …

Item no	MP/STORAGE DENOMINATION	TOTAL QUANTITY			TOTAL QUANTITY SPLIT PER NU		
		VOLUME [m³]	PCS [MWh/m³]	ENERGY [MWh]	NU NAME	QUANTITY	
						VOLUME [m³]	ENERGY [MWh]
1					1.1. …		
					1.2. …		
					1.n. …		

[2] For the injection cycle
[4] For the withdrawal cycle
[3] For the injection cycle
[5] For the withdrawal cycle

DELIVERED,	**TAKEN-OVER,**
SUBUNIT …	**SUBUNIT …**
……	……..
TSO REPRESENTATIVE[6] / SO REPRESENTATIVE[7]	SO REPRESENTATIVE[8]/ TSO REPRESENTATIVE[9]
Signature	Signature

[6] For the injection cycle
[8] For the withdrawal cycle
[7] For the injection cycle
[9] For the withdrawal cycle

Annex no 2.4

(to the Technical Requirements)

DO GAS DELIVERY/TAKE-OVER MINUTES at the MRS (DOGDTOM_1) NO .....

(total)

(only for gas quantities delivered to the distribution systems)

Concluded this day ..... month ..... year .....between:

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***

and

....., as ***LICENSED OPERATOR OF THE DISTRIBUTION SYSTEM (DO)***

It is hereby confirmed that during the period between ..... a total gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over at the regulating-metering station, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.
- the delivered gas was odorized according to the regulations in force and this gas had a noticeable odor enabling an easy detection of escapes.

REMARKS.....

DELIVERED,	**TAKEN-OVER,**
SUBUNIT …	**SUBUNIT …**
……	**……**

TSO REPRESENTATIVE **DO REPRESENTATIVE**

Name …… Name ……

First name …… First name ……

Signature Signature

This Minutes was drawn up in 2 counterparts, one for each party.

Pcs is at $t_{standard\ metering}$ = 15°C and $t_{standard\ burning}$ = 15°C

The volume is at 15°C and the pressure at 1.01325 bar

ANNEX TO DOGDTOM no …

ITEM NO	MRS DENOMINATION	METTER/CORRECTOR INDEX VALUE		TOTAL QUANTITY		
		OLD INDEX	NEW INDEX	VOLUME [m^3]	PCS [MWh /m^3]	ENERGY [MWh]
1						
2						
…						
n						

DELIVERED, **TAKEN-OVER,**

SUBUNIT … **SUBUNIT …**

…….. **……**

TSO REPRESENTATIVE DO REPRESENTATIVE

Signature Signature

…… ……

Annex no 2.5

(to the Technical Requirements)

DO GAS DELIVERY/TAKE-OVER MINUTES at the MRS (DOGDTOM_2) NO...

(split per supplier)

(only for gas quantities delivered to the distribution systems)

Concluded this day ..... month ..... year .....between:

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***

and

…….., as ***LICENSED OPERATOR OF THE DISTRIBUTION SYSTEM (DO)***

It is hereby confirmed that, according the Gas Delivery/Take-Over Minutes (DOGDTOM_1), during the period between ..... a total gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over at the regulating-metering station, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.
- the gas quantities specified in the Annex are those acknowledged by the suppliers.
- the delivered gas was odorized according to the regulations in force and this gas had a noticeable odor enabling an easy detection of escapes.

REMARKS

.....

.....

DELIVERED,	**TAKEN-OVER,**
TSO	**DO**
Director …	Director …
……	……

This Minutes was drawn up in 2 counterparts, one for each party.

ITEM NO	**MRS DENOMINATION**	**TOTAL QUANTITY**			**TOTAL QUANTITY SPLIT PER SUPPLIERS**		
		VOLUME [m^3]	PCS [MWh/m^3]	ENERGY [MWh]	**SUPPLIER NAME**	**QUANTITY**	
						VOLUME [m^3]	ENERGY [MWh]
1					1.1. …		
					1.2. …		
					1.n. …		
2					2.1. …		
					2.2. …		
					2.n. …		
…							
n.					n.1. …		
					n.2. …		
					n.3. …		

DELIVERED, **TAKEN-OVER,**

TSO DO

Director … Director …

…….. ……

Annex no 2.6

(to the Technical Requirements)

DC GAS DELIVERY/TAKE-OVER MINUTES at the MRS (DCGDTOM) NO …….

(only for the gas quantities delivered to the DC)

Concluded this day ..... month ..... year .....between:

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***

and

…….., as ***LICENSED SUPPLIER(S)***

It is hereby confirmed that during the period between ..... a total gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over via the MRS, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.

REMARKS

……

……

DELIVERED,	**TAKEN-OVER,**
SUBUNIT …	
……..	
TSO REPRESENTATIVE	**SUPPLIER(S) REPRESENTATIVE(S)**
Name ……	Name ……
First name ……	First name ……
Signature	Signature

This Minutes was drawn up in … counterparts, one for each party.

Pcs is at $t_{standard\ metering}$ = 15°C and $t_{standard\ burning}$ = 15°C

The volume is at 15°C and the pressure at 1.01325 bar

ANNEX TO DCGDTOM no …

ITEM NO	MRS DENOMINATION	TOTAL QUANTITY			TOTAL QUANTITY SPLIT PER SUPPLIERS		
		VOLUME [m^3]	PCS [MWh/m^3]	ENERGY [MWh]	SUPPLIER NAME	QUANTITY	
						VOLUME [m^3]	ENERGY [MWh]
1					1.1. …		
					1.2. …		
					1.n. …		

DELIVERED,
SUBUNIT …
TSO REPRESENTATIVE

Signature

……

TAKEN-OVER,
SUBUNIT …
SUPPLIER(S) REPRESENTATIVE(S)

Signature

……

Annex no 2.7

(to the Technical Requirements)

NU GAS DELIVERY/TAKE-OVER MINUTES (NUGDTOM) NO...

(for the total gas quantity transmitted)

Concluded this day ..... month ..... year .....between:

SNTGN TRANSGAZ SA MEDIAŞ, as ***LICENSED OPERATOR OF THE NATIONAL GAS TRANSMISSION SYSTEM (TSO)***

and

…….., as ***NETWORK USER (NU)***

It is hereby confirmed that, according the Gas Delivery/Take-Over Minutes (DOGDTOM_1, DOGDTOM_2, DCGDTOM), during the period between ..... the total transmitted gas quantity of ..... cm, respectively of …… Mwh was delivered, respectively taken-over via the regulating-metering stations, according to the specifications of the Annex (… page).

The parties are mutually agreeing and recording the following:

- the gas quantities have been delivered – taken over in NTS by complying with the provisions of the Technical Requirements.
- the delivered gas was odorized according to the regulations in force and this gas had a noticeable odor enabling an easy detection of escapes.

REMARKS

.....

.....

On behalf of, on behalf of,

SNTGN TRANSGAZ SA MEDIAŞ **S.C. ……**

Director … Director …

……. ……..

This Minutes was drawn up in 2 counterparts, one for each party.

ITEM NO	MRS DENOMINATION	TOTAL QUANTITY		
		VOLUME [m^3]	PCS [MWh /m^3]	ENERGY [MWh]
1				
2				
…				
n.				

SNTGN TRANSGAZ SA MEDIAŞ **S.C. ……..**

Director … **Director …**

…… ……

Annex no 3.1

(*to the Technical Requirements*)

Mechanical Metering Installation Modification Minutes of … (date)

Metering point denomination……

Modification of one orifice element **(Yes/No)……**

Type…….. Series……..Inner diameter d_{20}……mm

Material…….. Linear expansion coefficient λ_d…… K^{-1}

Other remarks:

Persons present on behalf of ……

on behalf of TSO ……..

Signature …….. **TSO**

Annex no 3.2

(*to the Technical Requirements*)

Electronic Metering Installation Modification Minutes of … (date)

Metering point denomination……

Modification of one orifice element **(Yes/No)……**

Type…….. Series……..Inner diameter d_{20}……mm

Material…….. Linear expansion coefficient λ_d…… K^{-1}

Modification of electronic metering computer **(Yes/No)……**

- Modification of absolute pressure transducer **(Yes/No)……**

Type…….. Series …….. Inspection Note no …….

Operating range …….. bar, Allowed error ……

- Modification of differential pressure transducer 1 **(Yes/No)……**

Type…….. Series …….. Inspection Note no…….

Operating range…….. mmH_2O, Allowed error ……

- Modification of differential pressure transducer 2 **(Yes/No)……**

Type…….. Series …….. Inspection Note no …….

Operating range…….. mmH_2O, Allowed error……

- Modification of temperature transducer **(Yes/No)……**

Type…….. Series …….. Inspection Note no …….

Operating range …….. °C, Allowed error ……

Other remarks:

Persons present on behalf of ……

on behalf of TSO ……..

Annex no 4.1

(*to the Technical Requirements*)

Electronic Gas Metering System Inspection Minutes

Concluded this day ……..……at the metering point…….…… upon the inspection of the electronic system composed of the following components:

Absolute pressure transducer…… error……

Differential pressure transducer 1…… error …….

Differential pressure transducer 2…… error …….

Temperature transducer…… error ……..

The components of this installation are not compliant with the accuracy rating

Other remarks:

Persons present on behalf of ……

on behalf of TSO ……..

Annex no 4.2

(*to the Technical Requirements*)

CARD

with the results of the absolute pressure transducer inspection

Transducer location …….

Type ……. Series …… Accuracy rating……Allowed error……..

Calibrator type ……. Series…….. Accuracy rating……Calibration Certificate No……

Inspector – Metrology Engineer…… Inspection date……

Obtained values

Simulated value		Exit signal calculated Ic	Exit signal calculated Ie		Error		Remarks
			U	C	U	C	
%	KPaA	mA	mA	mA			
0							
10							
20							
30							
40							
50							
60							
70							
80							
90							
100							

Annex no 4.3

(*to the Technical Requirements*)

CARD

with the results of the differential pressure transducer inspection

Transducer location ……

Type …… Series …… Accuracy rating……Allowed error……..

Calibrator type …… Series…… Accuracy rating……Calibration Certificate No……

Inspector – Metrology Engineer…… Inspection date……

Obtained values

Simulated value		Exit signal calculated Ic	Exit signal calculated Ie		Error		Remarks
			U	C	U	C	
%	mmH_2O	mA	mA	mA			
0							
10							
20							
30							
40							
50							
60							
70							
80							
90							
100							

Annex no 4.4

(*to the Technical Requirements*)

CARD

with the results of the temperature transducer inspection

Transducer location ……

Type …… Series …… Accuracy rating……Allowed error……..

Calibrator type …… Series…….. Accuracy rating……Calibration Certificate No……

Inspector – Metrology Engineer…… Inspection date……

Obtained values

Simulated value		Maximum allowed deviations		Exit signal calculated Rtm (Ω)		Error		Remarks
						U	C	
T(°C)	Rt (Ω)	(Ω)	(°C)	U	C			

Annex no 5

(*to the Technical Requirements*)

Gas metering using mechanical recording systems

If the gas quantities are determined using, daily, a mechanical metering system, each diagram shall include the values obtained by planimetry, the planimetric or mean temperature of gas, the barometric pressure, the characteristics of the contraction element and of the metering device, as well as the resulted gas quantity, values which are than certified by the signature of the person who performed the calculations. The used diagrams shall be previously reviewed and accepted by both counterparties, being kept for a period of 5 years.

If the differential pressure is specified in the diagram as band, the following shall apply depending on the bandwidth:

- in case of a 1-3 mm width, the planimetry shall apply on the middle of the band;
- in case of a 3-5 mm width, the planimetry shall apply on the lower side of the band (Ih_1) and on the upper side of the band (Ih_2), and the calculation shall consider the value: $Ih=Ih_1 + 1/3 (Ih_2-Ih_1)$;
- in case of a width equal to or above 5 mm, the planimetry shall apply on the lower side of the band.

Calculation methodology for the mechanical system

Following the metering carried out with a mechanical recorder for differential pressure, used to determine the gas quantities transiting that particular flow section, a calculation algorithm compliant with the standard rules substantiating the metering, respectively ISO 5167, shall be applied. Below is presented the format of this calculation algorithm implemented on the electronic computer.

1. Entering the initial data

- the characteristics of the metering point (point definition, technical characteristics of the lines and metering devices);
- the daily values of the parameters and physical quantities interfering in the calculation and resulted from the metering (planimetry)

2. Storing the initial data used for the flow calculation

3. Calculating the daily gas flow

3.1. Values initially established for Q_1 and RE

With regard to the gas flow calculation, the first approximation establishes the initial values for Q_1 and RE:

$$Q_1 = 0$$

$$RE = 10^6$$

3.2. Values initially calculated based on the daily readings and fixed data

3.2.1. Mean temperature of gas t :

if the temperature is established with a thermometer installed on the board:

t = the arithmetic average of gas temperature during the day [1]

if the temperature is entered in the circular diagram:

$$t = I_t^2 \cdot \frac{(t_{max} - t_{min})}{25} + t_{min}$$

[2]

3.2.2. Ratio of β diameters:

$$\beta = \frac{d_e}{D}$$

[3]

3.2.3. Correction factor for f_p pressure:

$$f_p = 1, \frac{5647}{1,608 - 0,0722 \cdot dens + 0,01 \cdot co2 - 0,00392 \cdot n2}$$

[4]

where co2 and n2 represent the mole percentages of the carbon dioxide, respectively, of the nitrogen

3.2.4. Partial formula f_{px} :

$$f_{px} = 0.01450376 \cdot f_p$$

[5]

3.2.5. Correction factor for f_t temperature:

$$f_t = 2,\frac{2629}{0,9915 + 2,119 \cdot dens - 0,01 \cdot co2 - 0,01681 \cdot n2}$$

[6]

3.2.6. ρ_S gas density at 15°C:

$$\rho_s \left[kg/m^3 \right] = dens \cdot 1,225442$$

[7]

where :

1.225442 = ρ_{air} at 15°C

3.2.7. T_{pc} pseudocritical temperature expressed in [°K] :

$$T_{pc}[°K] = 88,25 \cdot [1,7591 \cdot (0,56364 + \rho_s) - 0,01 \cdot (co2 + 1,681 \cdot n2)]$$

[8]

3.2.8. P_{pc} pseudocritical pressure expressed in [bar]:

$$P_{pc}[bar] = 30,168 \cdot 0,980665 \cdot [0,05993 \cdot (26,831 - \rho_s) + 0,01 \cdot (co2 - 0,392 \cdot n2)]$$

[9]

3.2.9. Determining the α_{ij} coefficients included in the calculation formula for α flow coefficient (where i=type of primary element).

The formula of α_{ij} coefficients varies depending on the type of primary element used.

As such:

if te=1:

$$\alpha_{11} = (0,99 - 0,2262 \cdot \beta^{4,1}) \cdot \frac{1}{(1 - \beta^4)^{0,5}}$$

[10]

$$\alpha_{12} = (0{,}00175 \cdot \beta^2 - 0{,}0033 \cdot \beta^{4{,}15}) \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[11]

if te=2 :

$$\alpha_{21} = 0{,}9965 \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[12]

$$\alpha_{22} = 0{,}00653 \cdot \beta^{0{,}5} \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[13]

if te=3 :

$$\alpha_{31} = (0{,}5959 + 0{,}0312 \cdot \beta^{2{,}1} - 0{,}184 \cdot \beta^8) \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[14]

$$\alpha_{32} = 0{,}0029 \cdot \beta^{2{,}5} \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[15]

The α_{33} coefficient is calculated differently, depending on the value of D diameter, as follows :

a) if $D \leq 58.62$ mm:

$$\alpha_{33} = 0{,}9906 \cdot \frac{\beta^4}{D \cdot (1-\beta^4)} \cdot \frac{1}{(1-\beta^4)^{0}}{,}5$$

[16]

b) if D > 58.62 mm :

$$\alpha_{33} = 2{,}2866 \cdot \frac{\beta^4}{D \cdot (1-\beta^4)} \cdot \frac{1}{(1-\beta^4)^{0}}{,}5$$

[17]

$$\alpha_{34} = 0{,}85598 \cdot \frac{\beta^3}{D} \cdot \frac{1}{(1-\beta^4)^{0}}, 5$$

[18]

if te=4:

$$\alpha_{41} = (0{,}5959 + 0{,}0312 \cdot \beta^{2,1} - 0{,}184 \cdot \beta^8) \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[19]

$$\alpha_{42} = 0{,}0029 \cdot \beta^{2{,}5} \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[20]

if te=5:

$$\alpha_{51} = (0{,}5959 + 0{,}0312 \cdot \beta^{2,1} - 0{,}184 \cdot \beta^8) \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[21]

$$\alpha_{52} = 0{,}0029 \cdot \beta^{2{,}5} \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[22]

$$\alpha_{53} = \left(0{,}039 \cdot \frac{\beta^4}{(1-\beta^4)} - 0{,}01584 \cdot \beta^3\right) \cdot \frac{1}{(1-\beta^4)^{0{,}5}}$$

[23]

3.2.10. E relative static pressure:

$$E[bar] = I_p^2 \cdot \frac{P_{max[bar]}}{25}$$

[24]

3.2.11. P absolute static pressure:

This is established using 2 formulas, depending on the type of barometric pressure measure unit:

a) if barometric measure unit = 1:

$$\mathbf{P[bar] = E[bar] + \frac{B[mmHg]}{750}, 062}$$

[25]

b) if barometric measure unit = 2:

$$\mathbf{P[bar] = E[bar] + B[bar]}$$

[26]

3.2.12. H differential pressure:

$$\mathbf{H[mmH2O] = I_h^2 \cdot \frac{H_{max[mmH2O]}}{25}}$$

[27]

3.2.13. Relative temperature in relation to T_{pc}:

$$\mathbf{T_r = \frac{t + 273,155}{T_{pc}}}$$

[28]

3.2.14. Relative pressure in relation to P_{pc}:

$$\mathbf{P_r = \frac{P}{P_{pc}}}$$

[29]

3.2.15. μ gas dynamic viscosity expressed in [cP]:

$$\mu[\mathbf{cP}] = \mathbf{3,24 \cdot 0,001 \cdot \left[\frac{(t + 273,155)^{0},5 + 1,37 - 9,09 \cdot \rho_s^{0},125}{\rho_s^{0},5 + 2,08 - 1,5 \cdot 0,01 \cdot (co2 + n2)}\right] \cdot \left[1 + \frac{P_r^2}{30 \cdot (T_r - 1)}\right]}$$

[30]

3.2.16. RE_{fix} formula:

Starting from the Reynolds number formula:

$$RE = \frac{4 \cdot q_m}{\pi \cdot \mu \cdot D}$$

[31]

where :

q_m = gas mass flow rate expressed in [kg/s]

μ = gas dynamic viscosity expressed in [Pa∗s]

D = metering board diameter expressed in [m]

and considering the relation report between the mass flow rate and the volumetric flow rate:

$$q_m = q_v \cdot \rho_s$$

[32]

where :

q_v = gas volumetric flow rate [m^3/s]

ρ_S = gas density [kg/m^3]

hence, the RE can also be as follows:

$$RE = \frac{4 \cdot q_v \cdot \rho_s}{\pi \cdot \mu \cdot D}$$

[33]

where:

q_v = gas volumetric flow rate expressed in [m^3/s]

ρ = gas density expressed in [kg/m^3]

μ = gas dynamic viscosity expressed in [Pa∗s]

D = metering board diameter expressed in [m]

Because:

1 [m^3/h] = 3600 [m^3/s]

1 [m] = 1000 [mm]

1 [Pa∗s] = 1000 [cP]

Results:

$$q_v\left[m^3/_s\right] = \frac{q_{vh}\left[m^3/_h\right]}{3600} \quad [34]$$

$$D[m] = \frac{D[mm]}{1000} \quad [35]$$

$$\mu[Pa \cdot s] = \frac{\mu[cP]}{1000} \quad [36]$$

If q_v [m^3/s], D[m], μ [Pa∗s] are replaced by the above equivalent expressions, RE formula can be represented as follows:

$$RE = \frac{4 \cdot q_{vh}\left[m^3/_h\right] \cdot \rho_s\left[kg/_{m^3}\right]}{\pi \cdot 3600 \cdot \mu[cP] \cdot D[m] \cdot 10^{-3}} \cdot 1000 \quad [37]$$

If the hourly volumetric flow rate is marked with Q_h, and if the calculations of the above formula are performed, RE calculation expression becomes the following:

$$RE = 0,353677 \cdot 1000 \cdot \frac{\rho_s\left[kg/_{m^3}\right]}{\mu[cP] \cdot D[m]} \cdot Q_h \quad [38]$$

If the expression multiplied by Q_h volumetric flow rate is marked with RE_{fix}:

$$RE_{fix} = 0,353677 \cdot 1000 \cdot \frac{\rho_s\left[kg/_{m^3}\right]}{\mu[cP] \cdot D[mm]} \quad [39]$$

the calculation formula of RE becomes:

$$RE = RE_{fix} \cdot Q_h \quad [40]$$

3.2.17. K adiabatic index:

$$K = 1,29 + 0,704 \cdot 10^{-6} \cdot [2575 + (73,045 - t)^2] \cdot P \cdot 1,01972$$

[41]

3.2.18. The ratio of static pressures downstream and upstream of the primary element:

$$\tau = {(P - \Delta P)}/{P_:}$$

$$\tau = \frac{P - H \cdot 9,80665 \cdot 10^{-5}}{P}$$

[42]

3.2.19. X =ΔP / (P∗K) ratio:

$$X = \frac{H \cdot 9,80665 \cdot 10^{-5}}{P \cdot K}$$

[43]

3.2.20. Q_{fix} formula:

$$Q_{fix} = 0,21116526 \cdot de^2 \cdot \frac{1}{\sqrt{\rho_s}} \cdot \sqrt{\frac{P \cdot H}{t + 273,155}}$$

[44]

3.2.21. ε expansion coefficient:

$$\varepsilon = \left[\left(\frac{\kappa \cdot \tau^{\frac{2}{\kappa}}}{\kappa - 1}\right) \cdot \left(\frac{1 - \beta^4}{1 - \beta^4 \cdot \tau^{\frac{2}{\kappa}}}\right) \cdot \left(\frac{1 - \tau^{\frac{\kappa-1}{\kappa}}}{1 - \tau}\right)\right]^{0,5}$$

[45]

a) if te = 1 or 2 :

b) if te = 3, 4 or 5 :

$$\varepsilon = 1 - (0{,}41 + 0{,}35 \cdot \beta^4) \cdot X$$

[46]

3.2.22. α flow coefficient:

if te = 1:

$$\alpha = \alpha_{11} - \alpha_{12} \cdot \left(\frac{10^6}{RE}\right)^{1} ,15$$

[47]

if te = 2:

$$\alpha = \alpha_{21} - \alpha_{22} \cdot \left(\frac{10^6}{RE}\right)^{0} ,5$$

[48]

if te = 3:

$$\alpha = \alpha_{31} + \alpha_{32} \cdot \left(\frac{10^6}{RE}\right)^{0} ,75 + \alpha_{33} - \alpha_{34}$$

[49]

if te = 4:

$$\alpha = \alpha_{41} + \alpha_{42} \cdot \left(\frac{10^6}{RE}\right)^{0} ,75$$

[50]

if te = 5:

$$\alpha = \alpha_{51} + \alpha_{52} \cdot \left(\frac{10^6}{RE}\right)^{0} ,75 + \alpha_{53}$$

[51]

3.3. Determining the Z compressibility factor for the measured state and the standard state

With regard to Z_r relative compressibility calculation, used in the flow calculation, it is required to successively establish the compressibility factor afferent to the following two states:

a) Z = compressibility factor for measured state (work condition) (P,t)

b) Z_{aga} = compressibility factor for standard state (p_{st}, t_{st})

where: $p_{st}=p_N$ =1.01325 [bar] and t_{st}=15°C

In order to determine the Z and Z_{aga} compressibility factor, the same formulas and symbols as for the partial determination expressions shall be used, being necessary to apply these formulas twice but with different values of P and t parameters.

The P,t parameters value shall be changed based on a flag, with the following two values:

flag = 0 for measured state

flag = 1 for standard state

Flag value = 0 shall be initially established. The following values and expressions shall be calculated by applying the P and t parameters values for the measured state (obtained as specified by point 3.2.1 and 3.2.11):

3.3.1. f_{p1} changed pressure:

$$\mathbf{f_{p1} = f_{px} \cdot P + 0,0147}$$

[52]

3.3.2. f_{t1} changed temperature:

$$\mathbf{f_{t1} = (0,0036 \cdot t + 0,984) \cdot f_t}$$

[53]

3.3.3. f_{tx} formula:

$$f_{tx} = |1,09 - f_{t1}|$$

[54]

3.3.4. f_{t2} formula:

$$f_{t2} = f_{t1}^2$$

[55]

3.3.5. f_{p2} formula:

$$f_{p2} = f_{p1}^2$$

[56]

3.3.6. Formula of w correction coefficient:

The w correction coefficient shall be calculated differently, depending on the limits of f_{p1} and f_{t1} values, namely:

a) if: $0 < f_{p1} \leq 2$ and $1.09 \leq f_{t1} \leq 1.4$

$$w = 1 - 0,00075 \cdot f_{p1}^2,3 \cdot e^{-20 \cdot f_{tx}} - 0,0011 \cdot w_h \cdot f_{p1}^2 \cdot (2,17 + 1,4 \cdot w_h - f_{p1})^2$$

[57]

where the symbol w_h was assigned to the following expression:

$$w_h = \sqrt{f_{tx}}$$

[58]

b) if : $0 < f_{p1} \leq 1.3$ and $0.84 \leq f_{t1} < 1.09$

$$w = 1 - 0,00075 \cdot f_{p1}^2,3 \cdot (2 - e^{-20 \cdot f_{tx}}) - 1,317 \cdot f_{tx}^4 \cdot f_{p1} \cdot (1,69 - f_{p2})$$

[59]

c) if: $1.3 < f_{p1} \leq 2$ and $0.88 \leq f_{t1} < 1.09$

$$w = 1 - 0,00075 \cdot f_{p1}^2, 3 \cdot \left(2 - e^{-20 \cdot f_{tx}}\right) + 0,455 \cdot (200 \cdot f_{tx}^6 - 0,03249 \cdot f_{tx} + 2,0167 \cdot f_{tx}^2 - 1$$

[60]

3.3.7. m formula:

$$m = \frac{1}{f_{t2}} \cdot \left[0,0330378 - \frac{1}{f_{t1}} \cdot \left(0,0221323 - 0,\frac{0161353}{f_{t2}}\right)\right]$$

[61]

3.3.8. f_{pm2} formula:

$$f_{pm2} = m \cdot f_{p2}$$

[62]

3.3.9. n formula:

$$n = \frac{1}{m} \cdot \left[\frac{1}{f_{t2}} \cdot \left(0,265827 + 0,\frac{0457697}{f_{t2}}\right) - 0,\frac{133185}{f_{t1}}\right]$$

[63]

3.3.10. b_w formula:

$$b_w = \frac{9 \cdot n - 2 \cdot m \cdot n^3}{54 \cdot f_{pm2} \cdot f_{p1}} - \frac{w}{2 \cdot f_{pm2}}$$

[64]

3.3.11. c formula:

$$c = \frac{3 - m \cdot n^2}{9 \cdot f_{pm2}}$$

[65]

3.3.12. d_w formula:

$$d_w = \left(b_w + \sqrt{b_w^2 + c^3}\right)^{\frac{1}{3}}$$

[66]

3.3.13. z_{rt} formula:

$$z_{rt} = 0,\frac{00132}{f_{t1}^3,25} + 1$$

[67]

3.3.14. Z_{aga} compressibility factor:

$$z_{aga} = \frac{z_{rt}^2}{\frac{c}{d_w} - d_w + \frac{n}{3 \cdot f_{p1}}}$$

[68]

After applying the string of formulas specified by points (3.3.1) to (3.3.14), the flag value shall be tested and, depending on this value, the following operations shall be performed:

a) if flag = 0 after calculating the Z_{aga} compressibility factor for measured state:

- its value is stored in a memory variable Z: $Z = Z_{aga}$
- the values for standard state: P=1.01325 [bar] and t=15 [°C] are assigned to P, t parameters
- value 1 is assigned to the flag: flag = 1
- the operations specified by points (3.3.1) to (3.3.14) are reapplied to determine the Z_{aga} compressibility factor corresponding to the standard state.

b) if flag = 1 after calculating the Z_{aga} compressibility factor for standard state:

- the following point (3.4) is applied to calculate the relative compressibility factor.

3.4. Calculation of Z_r relative compressibility factor

3.4.1. Z_r relative compressibility factor:

$$z_r = \frac{1}{\sqrt{\frac{z}{z_{aga}}}} = \sqrt{\frac{z_{aga}}{z}}$$

[69]

where:

z = compressibility factor for measured state

Z_{aga} = compressibility factor for standard state

3.5. Calculation of Q_h hourly flow

3.5.1. Method used to determine the hourly flow

To determine the hourly flow, the following formula shall be used:

$$Q_h = 0{,}21116526 \cdot \alpha \cdot \varepsilon \cdot de^2 \cdot \frac{1}{\sqrt{\rho_s}} \cdot z_r \cdot \sqrt{\frac{P \cdot H}{t + 273{,}155}}$$

[70]

If we are to consider the partial expression [44], marked by Q_{fix} symbol, which was already calculated at point (3.2.20), the calculation formula [70] for hourly flow can also be expressed as follows:

$$Q_h = Q_{fix} \cdot \varepsilon \cdot z_r \cdot \alpha$$

[71]

If the following notation is added:

$$Q_{fx} = Q_{fix} \cdot \varepsilon \cdot z_r$$

[72]

the hourly flow formula shall be the following:

$$Q_h = Q_{fx} \cdot \alpha$$

[73]

Due to the fact that the Q_h hourly flow is calculated depending on α, and α depends on RE which, in turn, is function of Q_h, the hourly flow can not be directly determined but by successive approximations. Using an iterative calculation, performed under several steps (i =1,2,..,n), a string of Q_h hourly flow values shall be assessed, successively applying the afferent approximation operations, by calculating the error until its value is within the limit specified and preset at the beginning of the iterative calculation.

For a higher accuracy of the flow calculation, a very low value shall be initially established for the maximum allowed error:

$$\delta Q_{prest.} = 10^{-5}[Sm^3] = 0,00001[Sm^3]$$

[74]

3.5.2. Determining the hourly flow by successive approximation

The first approximation (step 1) assesses the Q_{fx} expression and the Q_h hourly flow is calculated by applying the [70] formula, where α has the value determined by point (3.2.22) corresponding to RE = 10^6, as initially established at the beginning of point (3.1) calculations, assigning to Q_1 and RE the initial values (Q_1 = 0 and RE = 10^6)

3.5.2.1. Assessment of Q_{fx} formula:

$$Q_{fx} = Q_{fix} \cdot \varepsilon \cdot z_r$$

[75]

3.5.2.2. Calculation of Q_h hourly flow:

$$Q_h = Q_{fx} \cdot \alpha$$

[76]

3.5.2.3. Determining the error of ΔQ calculated flow:

The ΔQ error represents the absolute difference between the two successive values of flow, obtained in the iterative calculation, by comparison with the previous approximation step:

$$\Delta Q = |Q_h - Q_1|$$

[77]

3.5.2.4. Verification of compliance with preset accuracy limits:

The calculated flow error, ΔQ, shall be compared with the maximum preset error, δQ_{prest} . Depending on the result of this comparison, the following operations shall be performed:

a) if $\Delta Q < \delta Q_{prest}$:

the approximation operation is finished, the last Q_h calculated value being the final one and complying with the preset calculation accuracy. Then, point (3.6.) shall be applied to determine the daily flow.

b) if $\Delta Q > \delta Q_{prest}$:

the approximation operation is continues, going to the next step and performing the following operations:

3.5.2.5. Replacing Q_1 with Q_h value:

$$Q_1 = Q_h$$

[78]

3.5.2.6. Recalculating the value of RE :

$$RE = Q_1 \cdot RE_{fix}$$

[79]

3.5.2.7. Correcting the α flow coefficient depending on RE new recalculated value:

The α flow coefficient shall be recalculated depending on the type of primary element (te), by applying the above-mentioned formulas of point (3.2.22)

3.5.2.8. Resuming the operations as of point (3.5.2.2), using the new recalculated value of α flow coefficient.

3.6. Calculation of daily flow

The daily flow shall be assessed on the last calculation day, depending on the type of daily metering and based on the hourly flow, separately calculated for each set of devices used, as well as based on the time interval of measurements conducted with the relevant set of metering devices.

If we are to take into account the most complex case (timz=3), where the daily measurements have been conducted with two sets of different devices (1st Set of Devices and 2nd Set of Devices), during two time intervals of a day ($oref_1$ and $oref_2$) than, based on the two hourly flows (Q_{h1} and Q_{h2}), separately calculated for each set of devices used, the partial daily flows (Q_{z1} and Q_{z2}) for the two time intervals shall be calculated, followed by the calculation of total daily flow - Q_{ztot} – obtained by adding up the two partial daily flows.

3.6.1. Partial daily flow calculated for the measurements conducted on f_1 time interval with the 1st Set of Devices:

$$Q_{z1} = Q_{h1} \cdot oref_1$$

[80]

3.6.2. Partial daily flow calculated for the measurements conducted on f_2 time interval with the 2nd Set of Devices:

$$Q_{z2} = Q_{h2} \cdot oref_2$$

[81]

3.6.3. The total daily flow is obtained by adding up the two partial daily flows:

$$Q_{ztot} = Q_{z1} + Q_{z2}$$

[82]

4. Storage of calculated daily flows

The calculated daily flows shall be separately stored in 12 monthly folders: DGAZ01,…DGAZ12 . Each metering point shall have an entry in each monthly folder which, by its field structure, ensures the separate storage of daily flows calculated for each day of the relevant month, as well as the storage of corresponding aggregated flows. The entry includes 31 different fields designed to store the daily flows of a month, and 31 different fields designed to store the aggregated flows of a month thus ensuring the storage space of daily and aggregated flows for one year.

ANNEX no 10 Abrogated

ANNEX No. 11

(to the Network Code for the National Gas Transmission System)

List of virtual points and composing physical points

According to Annex No. 2 to Order No. 53/26.06.2014 of the ANRE President on the amending and supplementation of the Network Code for the National Gas Transmission System, approved by Order No. 16/2013 of the ANRE President.

ANNEX No. 12

(to the Network Code for the National Gas Transmission System)

List of physical point not grouped as virtual points

According to Annex No. 3 to Order No. 53/26.06.2014 of the ANRE President on the amending and supplementation of the Network Code for the National Gas Transmission System, approved by Order No. 16/2013 of the ANRE President.

ANNEX no 13

(to the Network Code for the National Gas Transmission System)

Trading notification to the VTP

The undersigned…….. [name and identification data of the NU], party to the transmission contract no. [ ] concluded between …….[name of the NU], and ……..[name of the TSO], on …….. [fill in the date], as NU who sells gas and,

The undersigned…….. [name and identification data of the NU], party to the transmission contract no. [ ] concluded between …….[name of the NU], and ……..[name of the TSO], on …….. [fill in the date], as NU who buys gas,

hereby notify the performance of the transaction related to the sale-purchase of the gas quantity of……MWh for the date ……..[fill in the date] at the price of …… Lei [fill in the price].

NU who sells
Date ……..

Authorized representative
Signature ……

NU who buys
Date …….

Authorized representative
Signature ……

ANNEX no 14 Abrogated