OPERATION AND BUSINESS CODE OF THE HUNGARIAN NATURAL GAS SYSTEM (IN THE ENGLISH LANGUAGE)*

PREPARED BY:
CODE COMMITTEE

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*In the case of any differences between the Hungarian and English wording of this Operation and Business Code, the provisions in Hungarian language of this Operation and Business Code shall prevail.

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Definitions

	Term	Interpretation
1.	**Active network user**	The network user who, in the single-sided nomination service, submits the nomination exclusively to the active system operator.
2.	**Active system operator**	The system operator who, in the single-sided nomination service, receives the nomination submitted by the active network user.
3.	**Base-rate user**	The user subject to payment of the distribution base rate specified in the Price Application Decree.
4.	**Allocation**	The full allocation of natural gas flow between two directly connected neighbouring network operators in the interconnected natural gas system to network user pairs at a given network point, where one network user is the network user of one of the system operators and the other network user is the network user of the other system operator.
5.	**Transmission system operator of electricity**	As defined in Section 3 paragraph 22 of Act LXXXVI of 2007 on Electricity.
6.	**Entry-exit point**	As defined in Section 3 paragraph 1b of the Gas Supply Act.
7.	**Third-party storage**	As defined in Section 3 paragraph 1a of the Gas Supply Act.
8.	**Connection point**	The point in the gas grid owned or operated by the system operator where the natural gas is taken over by the connected system operator or the user or is delivered by the natural gas producer to the system operator.
9.	**Connection contract**	As defined in Section 3 paragraph 3 of the Gas Supply Act.
10.	**Balancing service**	The balancing service provided by the transmission system operator to network users which includes establishing the volume of network user imbalance as part of the end-of-gas-day settlement and financially settling the same with the help of the Central Counterparty.

11.	**Unified Underground Storage (storage system)**	A storage system created by merging (in commercial sense) underground gas storages held by the storage system operator licensee, which appears as a virtual underground gas storage and as a single virtual delivery point for the network user with respect to capacity booking, nomination, allocation and settlement.
12.	**Single-sided nomination**	The nomination filed by the active network user with the active system operator. The active network user shall file the single-sided nomination in its own name and on behalf of the passive network user, under authorisation by the latter.
13.	**Single-sided nomination notification**	A notice on the single-sided nomination filed by the active network user that is sent by the active system operator to the passive system operator.
14.	**Interconnected natural gas system**	As defined in Section 3 paragraph 10 of the Gas Supply Act.
15.	**Distribution pipeline**	As defined in Section 3 paragraph 12 of the Gas Supply Act.
16.	**Forecasting party**	The party designated by the Authority to forecast a network user's non-daily metered off-takes and, where appropriate, perform its subsequent allocation on the basis of the data supply models as per Regulation (EU) No 312/2014 used in this Code.
17.	**Primary capacity allocation mechanisms**	The allocation mechanisms as specified in Regulation (EU) 2017/459 for the sales of standard capacity products and/or the capacity of the entry-exit point(s) to be established in the future (incremental capacity), as well as the Open Season procedure.
18.	**Settling natural gas price**	The natural gas price used for correction settlement in the distribution system, expressed in HUF/kWh.
19.	**Energy Identification Coding scheme (EIC code)**	A single identification system for the identification of the object of communication as used in automatic communication between the information technology systems in the energy sector.
20.	**European Association for the Streamlining of Energy Exchange Gas (EASEE Gas)**	The European Association for the Streamlining of Energy Exchange Gas, which, among others, developed the standard methodology for data exchange in the energy sector.
21.	**Gross calorific value**	The heat produced by the perfect combustion of a given quantity of gas if the reacting materials cool down to the initial temperature and the water produced during combustion is in liquid form. The initial temperature is the so-called combustion reference temperature.
22.	**Point of delivery (POD)**	As defined in Section 3 paragraph 16 of the Gas Supply Act.
23.	**User**	As defined in Section 3 paragraph 17 of the Gas Supply Act.
24.	**Capacity in the reverse direction of the physical flow**	Interruptible capacity in the reverse direction of the physical flow on a network point suitable for one-way physical transmission with which the system operator can perform transmission in the reverse direction of the

		physical flow by netting it against the transmission operation in the direction of the physical flow.
25.	**Conveyance procedure**	The procedure developed for the transmission system and defining the direction of gas traffic on the pipeline section in accordance with the natural gas transmission task.
26.	**Supply shortage**	State of the natural gas transmission system when consumption demand exceeds source volume.
27.	**Source surplus**	State of the natural gas transmission system when source volume exceeds consumption demand.
28.	**Underground gas storage**	As defined in Section 3 paragraph 32 of the Gas Supply Act.
29.	**Transmission system measurement error**	The difference resulting from the difference of the daily volumes settled by the transmission system operator at the entry-exit points and the daily volumes at month-end or subsequent dates as established from the flow computer, which, after being detected, shall be registered in a separate metering report with the neighbouring network operator.
30.	**Current withdrawal and injection capacity of the storage system operator**	Usable part of the nominal withdrawal and injection capacity of the storage system operator in the given period.
31.	**Storage system operator's Information Platform**	The information technology system supporting the storage system operator's natural gas storage activity.
32.	**Calorific value**	The heat produced by the perfect combustion of a given quantity of gas if all combustion products are in gas state on the temperature of reacting materials.
33.	**Gas delivery station**	As defined in Section 3 paragraph 35 of the Gas Supply Act.
34.	**Gas year**	As defined in Section 3 paragraph 36 of the Gas Supply Act.
35.	**Gas month**	As defined in Section 1 paragraph 6 of the Implementation Decree.
36.	**Gas day**	As defined in Article 3 paragraph 16 of Regulation (EU) 2017/459.
37.	**Normal cubic metre of gas**	The gas volume which takes the volume of 1 cubic metre (m^3) on 288.15 K temperature and 101325 Pa pressure.
38.	**Network point**	The entry/exit and virtual points of the transmission system.
39.	**Transmission loss and measurement difference (lost and unaccounted for gas)**	The difference between the natural gas volume injected to and delivered from the natural gas distribution or transmission system which is determined by the system operator from the own consumption and the change in linepack volume.
40.	**Border crossing (interconnection) entry-exit point**	Network point where natural gas transmission occurs across the borders of Hungary.

41.	**Time stamp**	Data definitely attributed or logically linked to the capacity booking contract concluded based on the confirmed outcome of the auction on the Capacity Booking Platform, certifying that the given (specific) contract existed in the form disclosed by the transmission system operator at the time of affixing the time stamp.
42.	**Title transfer service**	In the natural gas transmission or distribution system, transferring the right of use over a given volume of natural gas between two network users at a physical or virtual point of the transmission system or the physical point of the natural gas distribution system.
43.	**Capacity**	As defined in Section 3 paragraph 42 of the Gas Supply Act.
44.	**Capacity auction**	A procedure conducted under Regulation (EU) 2017/459, the Capacity Booking Platform Regulation and the system operators' business code and in the course of which capacities are allocated on market basis.
45.	**Capacity-charge user**	The user paying the distribution or transmission capacity fee specified in the Price Application Decree.
46.	**Capacity Booking Platform**	As defined in Section 3 paragraph 43 of the Gas Supply Act.
47.	**Neighbouring network operator**	The system operator in whose case the technological system operated by it is connected to another system operator's system in a way enabling physical gas flow, as well as the natural gas producer.
48.	**Bundled capacity**	As defined in Article 3 paragraph 12 of Regulation (EU) 2017/459.
49.	**Maintenance**	Maintenance shall mean the combination of technical, administrative and managerial actions that, during the lifetime of the system operators' physical system or the elements thereof, are necessary for maintaining or restoring the condition of a given element so that it can perform the required tasks of operation (European Standard MSZ EN 13306).
50.	**Trading Platform (TP)**	As defined in Article 3 paragraph 4 of Regulation (EU) No 312/2014.
51.	**Balancing gas**	As defined in Section 3 paragraph 45 of the Gas Supply Act.
52.	**Restriction**	A series of actions to decrease consumption, with the aim to restore the hydraulic balance of the interconnected natural gas system. If consumption is interruptible under contract, its interruption shall not qualify as restriction.
53.	**Central Counterparty**	The specialised credit institution performing the services related to the clearing of the transactions concluded on the TP and the organised natural gas market, activities connected with the transactions and guaranteeing the transactions, including its affiliates involved in performance.

54.	**Directly connected consumer**	The consumer taking off natural gas for its own use directly from the pipeline.
55.	**Local Issuing Office (LIO)**	EIC codes in the Hungarian gas sector can be issued by the legal entity authorised by the ENTSO-E Central Issuing Office (CIO).
56.	**Interruption**	At a given network point, the reduction by the system operator of the nomination (in line with the rules of renomination) over the firm capacity for a gas hour that can no longer be modified by the network user, to the extent indicated in the last interruption notification before the reduction.
57.	**Interruption failure**	At a given domestic exit point, the natural gas quantity taken against the interruptible capacity, over the extent indicated in the interruption notification.
58.	**mFRR balancing capacity (mFRR capacity)**	As specified in Section 1(1)(y) of the Price Application Decree.
59.	**Quality Accounting Rules (Quality Accounting Rules)**	The procedure for defining the chromatograph sample assigned to the respective network points, regulating the substitution of the chromatograph sample depending on the conveyance procedure, as well as defining the annual weighted average gross calorific value (and, for information purposes, the heating value) and the natural gas group. The document titled “Natural gas quality accounting system for the entry-exit points of the natural gas transmission system” is published on the website of the transmission system operator.
60.	**MKEH**	Hungarian Trade Licensing Office (in Hungarian: Magyar Kereskedelmi Engedélyezési Hivatal; the legal successor of OMH i.e. the National Metrology Office).
61.	**MSZKSZ**	Hungarian Hydrocarbon Stockpiling Association (in Hungarian: Magyar Szénhidrogén Készletező Szövetség).
62.	**Off-winter consumption period**	As specified in Section 1(1)(t) of the Price Application Decree.
63.	**Nominal injection capacity**	Total capacity for natural gas injection [kWh/day] calculated from the sum of independent capacities of the underground storages operated by the storage system operator licensee.
64.	**Nominal withdrawal capacity**	Total capacity for natural gas withdrawal [kWh/day] calculated from the sum of independent capacities of underground storages operated by the storage system operator licensee.
65.	**Nominal working gas capacity**	Working gas capacity for storage of natural gas [kWh] calculated from the sum of independent capacities of underground storages operated by the storage system operator licensee.
66.	**Nomination**	As defined in Section 3 paragraph 50 of the Gas Supply Act.

67.	**Nominatable capacity**	The capacity booked by the network user as amended by the capacity volume obtained or delivered in secondary capacity transactions, increased by the capacity made available by the transmission system operator in the over-nomination procedure and decreased on account of congestion management procedures, maintenance, interruption or restriction.
68.	**OMSZ**	Hungarian Meteorological Service (in Hungarian: Országos Meteorológiai Szolgálat).
69.	**Operational Balancing Account (OBA)**	The document between the transmission system operator and the neighbouring network operator that signed the relevant interconnection agreement, containing the energy volume difference between the daily measured energy and the energy settled with the network users, on a daily and cumulative basis.
70.	**Passive network user**	The network user who, during the single-sided nomination service, authorises the active network user in accordance with the agreement concluded with the active network user to submit single-sided nomination on its behalf to the active system operator.
71.	**Passive system operator**	The system operator who, based on the authorisation given by the passive network user, receives the nomination notification from the active system operator in the framework of the single-sided nomination service in accordance with the agreement with the active system operator.
72.	**Point of Delivery (POD)**	Settlement Point: Unique identification attributed to the point of delivery of the user as set out in the contract of system operators and network users.
73.	**Profile-based settlement system**	The prior settlement (allocation) by the distribution system operator of the consumption of the points of delivery the consumption metering equipment of which has no telemechanic system.
74.	**Relevant point**	The network points as defined in paragraph 3.2 in Annex 1 of Regulation (EC) 715/2009 that belong to the network operated by the transmission system operator.
75.	**Network usage contract**	As defined in Section 3 paragraph 51 of the Gas Supply Act.
76.	**Network user**	As defined in Section 3 paragraph 51a of the Gas Supply Act.
77.	**System control**	As defined in Section 3 paragraph 52 of the Gas Supply Act.
78.	**Interconnection point**	As defined in Article 3 paragraph 2 of Regulation (EU) 2017/459.
79.	**Interconnector**	As defined in Section 3 paragraph 52d of the Gas Supply Act.
80.	**System operator**	As defined in Section 3 paragraph 52a of the Gas Supply Act.
81.	**Partially isolated system**	As defined in Section 3 paragraph 52b of the Gas Supply Act.

82.	**Supervisory Control and Data Acquisition (SCADA)**	A supervisory, control and data acquisition system. A process control system for controlling the instruments operating as part of the TS system in the transmission system.
83.	**Available capacity**	As defined in Section 3 paragraph 53 of the Gas Supply Act.
84.	**Designated transmission system operator**	As defined in Section 3 paragraph 53/b of the Gas Supply Act.
85.	**Pipeline**	As defined in Section 3 paragraph 54 of the Gas Supply Act.
86.	**Organised natural gas market**	As defined in Section 3 paragraph 55 of the Gas Supply Act.
87.	**Contracted capacity at the exit point of the natural gas distribution system**	The capacity booked under the network usage contract in force between the network user and the operator of the natural gas distribution system.
88.	**Seasonal natural gas storage**	Single-instance injection of working gas of the network user into the underground storage in the injection period of the given storage year and its single-instance withdrawal in the withdrawal period.
89.	**Isolated system**	As defined in Section 3 paragraph 55a of the Gas Supply Act.
90.	**Memory read**	The electronic copying (reading) – visually (on a display) or through software (on a standard interface) – of the data concerning various metering periods (hour, day, month) from the internal memory (storage) of the flow computer of the (authenticated, certified) gas volume metering system installed in the gas technology system or at the user, on site or by means of remote reading.
91.	**Storage year**	As defined in Section 3 paragraph 55b of the Gas Supply Act.
92.	**Technical capacity**	As defined in Section 3 paragraph 55c of the Gas Supply Act.
93.	**Technical interruptible capacity**	The maximum published interruptible capacity that the system operator can offer to the network user.
94.	**Telemechanic System (TS)**	The totality of the tools, instruments and communication equipment installed on the natural gas transmission technology and the SCADA system controlling these.
95.	**Load change speed**	The maximum change of capacity that can be implemented on the underground gas storage in one hour.
96.	**The European Network of Transmission System Operators for Electricity (ENTSO-E)**	The European Network of Transmission System Operators for Electricity – facilitating cooperation between members.
97.	**The European Network of Transmission System Operators for Gas (ENTSO-G)**	The European Network of Transmission System Operators for Gas – facilitating cooperation between members.

98.	**Transaction notification**	The message containing the details of a transaction concluded on the organised natural gas market, on a TP or outside of these, the content of which, depending on its direction, will be allocated as entry or exit in the network user's portfolio on the transmission system operator's Information Platform.
99.	**Over-nomination**	As defined in Article 3 paragraph 25 of Regulation (EU) 2017/459.
100.	**Re-allocation procedure**	Modification of the system operators' daily final allocation after the gas month.
101.	**Renomination**	As defined in Section 3 paragraph 63 of the Gas Supply Act.
102.	**Renomination cycle**	The process performed by the transmission system operator to ensure that, after receipt of the renomination, the network user receives the notification on the confirmed quantities.
103.	**Renomination period**	The period starting at 4.00 p.m. on the day preceding the gas day and ending three hours before the end of the gas day, during which network users are entitled to submit renomination.
104.	**Malfunction**	As defined in Section 3 paragraph 65 of the Gas Supply Act.
105.	**Purchased capacity**	As defined in Section 3 paragraph 67 of the Gas Supply Act.
106.	**Virtual storage service**	Storage service which enables gas trade in reverse direction relative to the actual physical gas flow of the underground storages and/or announced storage gas flow according to the given period for the network user.
107.	**Confirmed volume**	The nominated or renominated natural gas quantity confirmed by the transmission system operator concerning the gas day.
108.	**Zero nomination**	Nomination in which the planned capacity use and delivery task for the gas day is zero.

Regulatory environment

A) EU Directives and Regulations

a) Directive 2009/73/EC of the European Parliament and of the Council concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (hereinafter: **Directive 2009/73/EC**)
b) **Regulation (EC) No 715/2009 of the European Parliament and of the Council** on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005 (hereinafter: **Regulation (EC) 715/2009**)
c) Regulation (EU) 2017/1938 of the European Parliament and of the Council concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010
d) Commission Regulation (EU) 2017/459 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 (hereinafter: **Regulation (EU) 2017/459**)
e) Commission Regulation (EU) No 312/2014 establishing a Network Code on Gas Balancing of Transmission Networks (hereinafter: **Regulation (EU) No 312/2014**)
f) Commission Regulation (EU) 2015/703 establishing a network code on interoperability and data exchange rules (hereinafter: **Regulation (EU) 2015/703**)
g) Commission Regulation (EU) 2017/460 establishing a network code on harmonised transmission tariff structures for gas (hereinafter: **Regulation (EU) 2017/460**)

B) Acts

a) Act XLV of 1991 on Metrology
b) Act XLVIII of 1993 on Mining (hereinafter: **Mining Act**)
c) Act XXVI of 2006 on the Strategic Stockpiling of Natural Gas
d) Act XL of 2008 on Natural Gas Supply (hereinafter: **Gas Supply Act**)
e) Act XXII of 2013 on the Hungarian Energy and Public Utility Regulatory Authority
f) Act LXXXVI of 2007 on Electricity

C) Government Decrees

a) Government Decree No 127/1991. (X. 9.) on the implementation of the Act on Metrology
b) Government Decree No 19/2009 (I. 30.) on the implementation of the provisions of Act XL of 2008 on Natural Gas Supply (hereinafter: **Implementation Decree**)
c) Government Decree No 110/2020 (IV. 14.) on the restriction of natural gas off-take, the usage of strategic natural gas reserve and the other actions to be taken in case of a natural gas supply crisis and Government Decree No 296/2015 (X. 13.) on final natural gas emergency service and the procedure applicable as a result of a situation threatening the natural gas supply of the users in the case of impossibility of the natural gas trader's operation

d) Government Decree No 53/2012. (III. 28) on the regulations of building control authority processes regarding certain special built structures that are in competence of the mining offices

D) Ministerial Decrees

a) Decree No 6/2001 (III.19.) GM of the Minister of Economic Affairs on measurement devices and their measurement controls
b) Decree No 86/2003. (XII. 16.) GKM of the Minister of Economy and Transport on the order of data supply of the specific natural gas industry undertakings
c) Decree No 16/2018. (IX. 11.) ITM of the Minister of Innovation and Technology on the qualifications and experience required for holding positions of key importance in respect of technical safety issues, as well as the rules of periodic further training of those employed in such positions
d) Decree No 79/2005. (X. 11.) GKM of the Minister of Economy and Transport on safety requirements of hydrocarbon transport pipelines and on publishing the Safety Code of hydrocarbon transport pipelines
e) Decree No 80/2005. (X. 11.) GKM of the Minister of Economy and Transport on the safety requirements of gas distribution lines and the publication of the Safety Code for Gas Distribution Lines
f) Decree No 13/2015. (III.31.) NFM of the Minister for National Development on the size of the emergency natural gas reserve
g) Decree No 43/2016 (XI.23.) NGM of the Minister for National Economy on the particular regulations concerning metering equipment

E) Decrees of the President of the Hungarian Energy and Public Utility Regulatory Authority (hereinafter: Authority)

a) MEKH (Hungarian Energy and Public Utility Regulatory Authority) Decree No 1/2014 (III. 4.) on the rate of the administrative service fees of the Hungarian Energy and Public Utility Regulatory Authority and the rules of collection, management, registration and refunding of the administrative service and supervision fees and other revenues
b) MEKH Decree No 8/2016. (X. 13.) on the framework rules of determining natural gas system usage fees, separate charges and connection fees (hereinafter: **Framework Decree**)
c) MEKH Decree No 11/2016 (XII.14.) on the rules of application of system usage fees, separate charges and connection fees (hereinafter: **Price Application Decree**)
d) MEKH Decree No 13/2016. (XII. 20.) on the rate of natural gas system usage fees, separate charges and connection fees (hereinafter: **Tariff Decree**)

F) Natural gas codes approved by the Authority in a resolution

a) Market Rules of the Organised Natural Gas Market (hereinafter: **Market Rules**)
b) Capacity Booking Platform Regulation
c) Operational Rules of the Trading Platform (hereinafter: **TP Code**)

1. Book I: Introduction

1.1. The purpose, scope and amendment of the Operation and Business Code

a) The purpose of the Operation and Business Code (hereinafter: **Code**) is to lay down the rules of cooperation between the actors of the natural gas market, the access to the system and the operation of the system in view of the directly applicable legal acts of the European Union (hereinafter collectively as: **EU laws**), national laws, in particular the Gas Supply Act, and other laws issued under the authority granted by the Gas Supply Act.
b) The Code sets out the rules, procedures and methods of the technical operation and use of the interconnected natural gas system, the minimal substantive requirements of measurement settlement and data traffic agreements, and the key rules of the commercial process.
c) The personal scope of the Code extends to:

i. the designated transmission system operator;
ii. the transmission system operator;
iii. the party establishing the pipeline;
iv. the storage system operator licensee;
v. the distribution system operator;
vi. the premises based service provider;
vii. the organised natural gas market;
viii. the natural gas trader, including the universal service provider and the restricted natural gas trader;
ix. users acting on own account;
x. the natural gas producers;
xi. the party ordering cross-border delivery;
xii. the party ordering third-party storage;
xiii. the party establishing and operating the direct line

d) The times mentioned in connection with deadlines in the Code shall be understood according to Central European Time (**CET**).
e) The rules of the review and amendment of the Code are set forth in Annex I, on the provision that where the amendment only affects the Data Exchange Regulation forming Annex IX, that Annex may be separately amended.

1.2. General rules

a) In its supervisory powers, the Authority is entitled to check compliance with the Code.
b) The system operator and the designated transmission system operator shall ensure the same rights and contractual conditions as well as competitive neutrality and non-discrimination for all network users.
c) The system operator shall publish its contractual terms and conditions, current fees and any deviation from the same, as well as the rules regarding system use on its website.

d) Those under the personal scope of the Code shall ensure the confidential treatment of any non-public information obtained by them, along with the non-discriminative data supply of uniform quality.
e) The relevant entities shall take the provisions of the Code into consideration when drafting their business codes and contracts.
f) The services provided by the system operator may be used provided that a valid network usage contract is in place.
g) Following disclosure of the Authority's resolution approving the Code, the system operator shall make the Code as approved by the Authority available on its website.

1.3. Services provided by system operators

a) The transmission system operator, the distribution system operator and the storage system operator may provide basic services and other services requested individually for an extra charge, provided that the latter is optional and does not qualify as a licensable activity.
b) The services provided by the transmission system operator within the scope of its licensable activities may be classified as transmission and non-transmission services as regulated in Regulation (EU) 2017/460 and services as specified in Regulation (EU) No 312/2014.
c) The scope of non-transmission services and the services with specific fees are regulated in the **Framework Decree**.
d) The detailed rules of using the services shall be laid down in the system operators' business codes. Save as otherwise provided by law, the network users are entitled to use the services against payment of the fees specified in the **Tariff Decree**, under the related price application conditions laid down in the **Price Application Decree**. The basic services are available against payment of the system usage fee.

e) The basic services provided by the transmission system operator to network users are as follows:

i. defining and disclosing available capacities on the entry-exit points of the transmission system;
ii. conclusion of network usage contracts;
iii. ensuring measurements with the required accuracy (in accordance with Annex III);
iv. ensuring transmission system capacity booking;
v. receiving and processing nominations with respect to the transmission system;
vi. performing the tasks of natural gas transmission;
vii. ensuring the hydraulic balance of the natural gas transmission system;
viii. defining and allocating the quantity of natural gas distributed (received-delivered) in the transmission system for network users;
ix. defining the qualities of natural gas distributed (received-delivered) in the transmission system for neighbouring network operators and network users;
x. preparing quantity and financial settlement, both final and the ones corrected during the re-allocation procedure;
xi. representing the interconnected natural gas system in international professional organisations;

xii. developing and operating the Information Platform applicable to the processes of the transmission system:
- ensuring basic data supply as specified in the applicable law[1] and in Chapter 2.6 of the Code;
- ensuring data supply to contracted partners as stipulated in the applicable law and the Code.

xiii. odourisation;

xiv. ensuring exemption from capacity overrun and nomination difference surcharges for power plants having manual frequency restoration reserve (mFRR) capacity.

f) **The tasks performed by the designated transmission system operator are as follows:**

i. harmonising the required developments of the interconnected natural gas system, consulting on and summarising development proposals, preparing development proposals and submitting them to the Authority;

ii. drafting the Code and filing the draft with the Authority for approval;

iii. planning measures to be taken for the preservation of the integrated nature of the interconnected natural gas system, compiling the Restriction Order based on the proposals of the transmission system operator and the distribution system operator and filing it with the Authority for approval;

iv. in case of interruption or crisis in natural gas supply, managing the required restriction on the interconnected natural gas system;

v. cooperating in preparing the tender aiming to implement the development plan approved to develop the interconnected natural gas system;

vi. operating a data traffic and information technology system allowing it to perform its activities.

g) The basic services provided by the distribution system operator:

In order to **conduct capacity booking in the natural gas distribution system:**

i. distributing natural gas between the entry-exit points of the natural gas distribution system;

ii. disclosing daily gross calorific value data broken down to the entry points of the natural gas distribution system;

iii. providing to the universal service provider by 30 January each year the number and consumption of the users eligible for universal service and taking off from the distribution pipeline who are already connected to or are expected to be connected during the year, broken down to profile groups.

iv. concluding network usage contracts for distribution on the distribution network.

In order to ensure the physical balance of the natural gas distribution system:

i. taking daily operative measures;

[1] Decree No 86/2003. (XII.16.) GKM

ii. where the necessary measures for the restriction of users are ordered, implementing the same or having them implemented on the natural gas distribution system;
iii. continuously operating a dispatching and standby service;
iv. preparing the post-gas day settlement;
v. at the entry points of the natural gas distribution system, daily allocation of the measured natural gas quantities taken over from the transmission system operator, the neighbouring distribution system operator and the producer to its own trade contacts concerned by natural gas delivery and the trade contacts of the network users of the neighbouring network relevant for the given point, and sending the same to natural gas distribution network users and the neighbouring network operator;
vi. implementing authenticated metering at the exit points of the natural gas distribution system (except for users subject to a lump sum fee);
vii. reading gas meters at the exit points of the natural gas distribution system with the frequency specified in the business code, preparing the final quantitative settlements and sending them to the network users using the natural gas distribution system. The minimum content elements of data supply: user's name, address, address of the point of delivery, POD, meter's serial number, date of reading, quantity read, date of previous reading, previous quantity read, quantity settled (m^3 and MJ), scaling factor applicable to the settlement period, scaling factor applicable to the period after the settlement period. Data must be supplied in a uniform manner by each distribution system operator.
viii. keeping record (and, upon the network user's request, issuing a certificate) of the data of the point of delivery and the user, at least in the following scope: unique identifier of the point of delivery, the characteristic details and ID number of the consumption metering equipment at the point of delivery, the user's purchased and booked capacity, the user's profile classification, the user's class of restriction, the data necessary for user identification, and the user's consumption data;
ix. implementing the distribution system operator's tasks arising due to customer migration;
x. operating a customer service in accordance with the provisions of the Gas Supply Act;
xi. in the case of users that are public institutions, ensuring exemption from disconnection (moratorium) upon demand notification;
xii. monitoring and determining any overruns over the maximum booked capacities at the exit points of the distribution network, and communicating the same to the affected network user;
xiii. developing, maintaining and operating a profile-based settlement system;
xiv. providing the base data for any subsequent correction necessary due to the operation of the profile-based settlement system, preparing financial accounts;
xv. developing, maintaining and operating a sectoral data exchange model in line with the provisions of the Data Exchange Regulation attached hereto as Annex IX.

h) Basic services provided by the storage system operator licensee:

i. determining and disclosing capacity data:
   - continuous and updated disclosure of the load change parameters available to the party booking the storage capacity (loading constraints);
   - continuous and updated disclosure of the current withdrawal and injection capacity available depending on the filling level of the underground storage;
   - determination and continuous and updated disclosure of the underground storage's capacity;
   - continuous and updated disclosure of the available working gas, withdrawal and injection capacity of the underground storage;
   - disclosure of the composition (working gas capacity, injection and withdrawal capacity) of the capacity bundles offered for booking, as well as the number of bundles;
   - disclosure of working gas capacities, injection and withdrawal capacities offered for booking individually (not as a bundle);
   - the capacities offered by the storage system operator licensee may be contracted separately up to the total quantity in both offer types.

ii. concluding natural gas storage contracts;

iii. conducting the capacity booking process;

iv. injecting the contracted quantities to storage;

v. withdrawing the natural gas placed in the underground storage in the contracted quality;

vi. responsible custody of the natural gas delivered by the contracted partner throughout the storage process;

vii. receiving storage system operators' nominations, performing, reviewing and confirming capacity checks;

viii. preparing heat (and volume) based daily settlement, preparing the settlement of monthly gas traffic by the 5th business day following the subject month, taking care of data supply in this respect;

ix. checking natural gas quality on a daily basis, implementing and certifying measurements (on its own or by engaging a third party);

x. at the entry-exit points of the underground storage, daily allocation of the measured natural gas quantities taken over from the neighbouring network operator and the producer to its own trade contacts concerned by natural gas delivery and the trade contacts of the network users of the neighbouring network relevant for the given point, and sending the same to those using the underground storage and the neighbouring network operator;

xi. ensuring data supply as required by the Code and the legislation in force;

xii. verifying whether the nominations submitted with respect to the common points of the neighbouring systems correspond to each other;

xiii. supporting the delivery and takeover of capacities and the working gas on the storage system operator's Information Platform.

1.4. Entities eligible to use the interconnected natural gas system

1.4.1. The entities entitled to use the transmission system include:

a) users acting on own account, up to their own use;
b) natural gas traders;
c) transmission system operators, including foreign-based transmission system operators directly connected to the interconnected natural gas system to ensure the balance of the transmission system;
d) system operators up to the volume of natural gas used for technological purposes and loss handling;
e) natural gas producers;
f) the Hungarian Hydrocarbon Stockpiling Association up to the capacities necessary for strategic stockpiling;
g) the persons using the system for cross-border delivery purposes through the territory of Hungary (party ordering cross-border delivery) and/or for third-party storage purposes (party ordering third-party storage),
h) the Central Counterparty, to clear of natural gas and capacity transactions and implement related tasks.

1.4.2. The entities entitled to use the natural gas distribution system include:

a) users acting on own account, up to their own use;
b) natural gas traders;
c) the distribution system operator up to the volume of natural gas used for technological purposes and loss handling;
d) natural gas producers.

1.4.3. The entities entitled to use the storage system include:

a) users acting on own account, up to their own use;
b) natural gas traders;
c) transmission system operators to ensure balancing gas for gas transmission;
d) system operators up to the volume of natural gas used for technological purposes and loss handling;
e) the Hungarian Hydrocarbon Stockpiling Association up to the capacities necessary for strategic stockpiling;
f) natural gas producers;
g) the party providing third-party storage.

1.5. Denial and suspension of access

a) System operators may suspend access to the networks operated by them in the cases listed in the applicable provisions of the Gas Supply Act and the Implementation Decree.
b) The system operator must provide the reasons for the denial or suspension of access, and must report the denial of access to the Authority within 3 business days.
c) If a consumer, supplied directly from a transmission pipeline, is supplied by one natural gas trader, the transmission system operator shall suspend access to the transmission system in case of the natural gas trader's written demand delivered to the transmission system operator for the exclusion of the user from the direct transmission pipeline and in case of a simultaneous zero nomination.

d) If a consumer, supplied directly from a transmission pipeline, is supplied by more than one natural gas trader, then in case of a natural gas trader's written demand delivered to the transmission system operator for the exclusion of the user from the direct transmission pipeline and in case of a simultaneous zero nomination zero quantity will be allocated to the natural gas trader initiating the exclusion.
e) Except for service suspension due to restriction, the neighbouring network operator shall send a notification to the designated transmission system operator about the suspension.
f) The process of suspension, except for service suspension due to restriction, is as follows:

i. The system operator shall issue an oral or written order to suspend the services provided by it on the natural gas transmission and distribution pipeline operated by it, or on the underground storage towards network users and neighbouring network operators. Oral requests shall at all times be confirmed by the system operator in writing within 24 hours. Suspension of access shall be justified by the system operator.
ii. Neighbouring network operators shall send oral or written notices of the request to users supplied by them and affected by the suspension. Oral requests shall at all times be confirmed by the neighbouring network operators in writing within 24 hours.
iii. Users involved in the suspension shall discontinue the off-take of natural gas after the receipt of the notification.
iv. Should a user fail to discontinue its off-take of natural gas, such shall be deemed reception without a contract.

1.6. General rules applicable to the organised natural gas market

a) The organised natural gas market shall operate in accordance with the relevant provisions of the Gas Supply Act[2] and the Implementation Decree[3], as well as the Market Rules approved by the Authority.
b) The organised natural gas market licensee shall publish the Market Rules on its website.

1.7. Cooperation obligations

a) The system operator and the natural gas producer shall conclude interconnection agreements regarding all connection points of the interconnected natural gas systems concerned by their activities, including trial operation, in which the concerned parties set forth the requirements regarding the joint use of the connecting points in question, the relevant obligations and responsibilities, as well as settlement procedures and the settlement of potential disputes.
b) Contacts among system operators, and between system operators and natural gas producers shall be maintained as set out in the interconnection agreements.

[2] Sections 46-49 of the Gas Supply Act
[3] Sections 36-38 of the Implementation Decree

c) In the course of cooperation with the premises based service provider, the transmission system operator and the distribution system operator shall act in conformance to the requirements pertaining to the neighbouring network operator connected to the natural gas transmission system and its own system, respectively.
d) The minimum substantial elements of the interconnection agreement are:

i. Rules of procedures pertaining to the use of the network point concerned;
ii. Place of the delivery and acceptance of natural gas;
iii. Pressure and temperature on delivery;
iv. Capacities of the natural gas entry-exit point(s);
v. Rules pertaining to the identification of network users;
vi. Agreements on quantities to be transported;
vii. Consultation of booked capacities (for the use of the connection point(s) and the definition of Restriction Order);
viii. Allocation to the entry-exit points of the natural gas transmission system;
ix. Procedure in relation to any excess volume beyond the booked capacity;
x. Procedure for capacity development;
xi. Measurement and settlement of natural gas volumes;
xii. Qualitative properties of the natural gas, their measurement, certification rules;
xiii. Complaints in relation to quantity- and quality-related data;
xiv. Other information in relation to natural gas odourisation;
xv. Data supply;
xvi. Ordering and enforcement of interruption and restriction (cooperation in extraordinary situations);
xvii. Elaboration of interruption and restriction with special respect to the form of the consultation of booked capacities, as well as their ordering and enforcement (cooperation in extraordinary situations);
xviii. Outage of operations due to malfunction and maintenance, development and reconstruction;
xix. Form of contacts, representatives of the Parties;
xx. Resolution of disputes;
xxi. Legal succession.

e) To ensure standard contents and substances for the interconnection agreements, system operators with systems that are open for connection shall disclose model agreements on their websites:

i. transmission system operators in relation to the entry-exit points of natural gas transmission;
ii. distribution system operators in relation to the natural gas distribution entry points where natural gas is injected directly from the system of the natural gas producer;
iii. distribution system operators in relation to the exit points of the natural gas distribution systems;
iv. the storage system operator licensee in relation to the entry-exit points of the underground storages where natural gas is directly injected to or withdrawn from the system of the natural gas producer.

f) Transmission system operators shall conclude interconnection agreements with foreign-based neighbouring network operators. The minimum substantial elements of the interconnection agreement are:

i. Rules of procedures pertaining to the use of the point concerned;
ii. Place of the delivery and acceptance of natural gas;
iii. Pressure and temperature on delivery;
iv. Capacities of the natural gas entry-exit point(s), the rules of bundling capacities;
v. The rules of shipper pairs specified by network users and those of the gas day nomination conciliation procedure;
vi. Allocation to the entry-exit points of the natural gas transmission system;
vii. Measurement and settlement of natural gas volumes;
viii. Qualitative properties of the natural gas, their measurement, certification rules;
ix. Complaints in relation to quantity- and quality-related data;
x. Communication and data transmission;
xi. Management of emergency situations;
xii. Outage of operations due to malfunction and maintenance, development and reconstruction;
xiii. Form of contacts, representatives of the parties, procedure of access to the objects;
xiv. Procedure of data supply;
xv. Obligations of the respective parties in connection with development, reconstruction and maintenance activities, and the method of necessary consultations;
xvi. Resolution of disputes;
xvii. Legal succession.

g) The dispatching organisation of the neighbouring network operators shall maintain a continuous direct operational connection with the dispatching organisation of the neighbouring network operator.
h) If the nomination rules applied by the foreign-based neighbouring network operator prescribe units of measurement and methods other than as specified in the Code then, in the interconnection agreement concluded with the foreign-based neighbouring network operator, the transmission system operator shall set out the principles, conversion method, rules and necessary parameters allowing the network user to perform the conversions necessary for nomination. All these information and continuously updated parameters shall be published by the transmission system operator on its website.
i) In line with the provisions of the Price Application Decree[4], the transmission system operator shall enter into an interconnection agreement with the transmission system operator of electricity to ensure the exemption of power plants having mFRR capacity from capacity overrun and nomination difference.

[4] Section 11/A (3) of the Price Application Decree

j) In line with the provisions of the Price Application Decree[5], the transmission system operator shall enter into an interconnection agreement with power plants having mFRR capacity to ensure the exemption from capacity overrun and nomination difference.

1.8. Structure of the interconnected natural gas system

1.8.1. Key elements of the transmission systems

a) border crossing (interconnection) entry-exit points;
b) production entry points;
c) underground storage entry-exit points;
d) pipeline sections;
e) block valve stations;
f) Hungarian Virtual Trading Point **(MGP);**
g) compressor stations;
h) gas delivery stations, exit points;
i) pipeline junctions;
j) electronic and technological communication cables used for mining operations;
k) System Control Centre;
l) Telemechanic System;
m) Information Platform;
n) hydraulic simulation software;
o) software supporting system control, operation and maintenance;
p) corrosion protection equipment;
q) central and individual odouring systems;
r) equipment measuring natural gas quantity and quality.

1.8.2. Key elements of the natural gas distribution systems

a) high-pressure distribution pipelines;
b) high-medium-pressure distribution pipelines;
c) medium-pressure distribution pipelines;
d) increased low-pressure distribution pipelines;
e) low-pressure distribution pipelines;
f) regional pressure control stations;
g) municipal gas receiving stations;
h) corrosion protection equipment;
i) dispatcher centres;
j) consumption metering equipment, correctors, pressure regulators;
k) equipment for the transmission and receipt of remote data;
l) Information Platform.
m) producers' entry points

1.8.3. Key elements of the storage systems

a) injection/withdrawal well networks;
b) geological storage structures;

[5] Section 11/A (4) of the Price Application Decree

c) field collection and natural gas distribution systems;
d) gas processing technology systems;
e) compressor stations;
f) auxiliary equipment;
g) Storage System Operator's Information Platform;
h) dispatcher centres;
i) pipelines installed up to the entry-exit points.

1.9. Data exchange

1.9.1. Application of the Data Exchange Model

a) The Data Exchange Model supports the non-discriminative exchange of the significant amount of data created during the cooperation between distribution system operators and network users, in a uniform framework.
b) Distribution system operators and network users comply with the network usage contracts and the rules of the Data Exchange Model in order to properly perform their data supply obligations prescribed by legislation and the Code. Where the Data Exchange Model is unavailable due to reasons on the distribution system operator's side, network users shall be allowed to use other communication channels (e-mail, fax, official mail).
c) The Data Exchange Regulation attached as Annex IX to the Code shall be updated if required by changes in legislation or the operation of the market.

1.9.2. Conditions of joining the Data Exchange Model system

a) Each market player having a natural gas distribution or natural gas distribution network user licence and each network user is obliged to join the Data Exchange Model.
b) Conditions of joining:

    i. It is a rule mandatorily applicable to all market players that the connected licensee shall follow the rules of communication as set out in the Data Exchange Model during market communication.
    ii. For distribution system operators, as a further condition of joining, they shall develop a distribution system operator's Information Platform (distribution system operator's data exchange server) to support the handling of messages belonging to the points of delivery within their distribution area, with the technological specification as described in Annex IX.

1.9.3. Processes of the data exchange model

The processes of the data exchange model are described in Annex IX of the Code.

2. Book II: Rules of trading

2.1. Capacity booking

2.1.1. General system-level rules

2.1.1.1. Capacity booking

a) The available capacities of the natural gas network may and shall be offered to network users and booked pursuant to the Code by the transmission system operator in case of the natural gas transmission system, by the distribution system operator in case of the natural gas distribution system, and by the storage system operator licensee in case of the natural gas storage system.
b) The available capacities on the entry-exit points of the neighbouring systems shall be published by the relevant system operator and harmonised with the rest of the system operators prior to publication.
c) The network user shall book the necessary capacities with the transmission system operator, the distribution system operator and the storage system operator licensee separately.
d) Capacities booked shall be called on by network users in compliance with the law on the use of the interconnected natural gas system and the provisions of the Code.

2.1.2. Booking of transmission system operator capacities

2.1.2.1. General rules

a) The transmission system operator shall undertake to transmit natural gas in an uninterrupted and unrestricted manner up to the extent of firm capacities offered and booked if the sources are available, save for the cases stipulated herein.
b) With respect to entry-exit points of the natural gas transmission pipeline where network users are obliged to book capacity, the standard capacity products as per Regulation (EU) 2017/459[6] shall be booked using the allocation mechanisms specified in Regulation (EU) 2017/459 on the Capacity Booking Platform or, in the case of over-nomination, on the transmission system operator's Information Platform. The terms and conditions of capacity allocation and booking, and also the manner in which network usage contracts shall be concluded are defined by the relevant provisions of Regulation (EU) 2017/459, the Gas Supply Act[7] and the Implementation Decree[8], this Code, the Capacity Booking Platform Regulation and the transmission system operator's business code.
c) The sale of the capacities of the entry-exit points planned to be established in the transmission system in the future shall be governed by the provisions of Regulation (EU) 2017/459, the Authority's relevant resolution and the transmission system operator's business code.
d) Only network users that meet the following requirements before the date applicable to the use of the Capacity Booking Platform Regulation are entitled to take part in the capacity booking procedure:

[6] Article 9
[7] Sections 71-79 of the Gas Supply Act
[8] Sections 73-92/C of the Implementation Decree

i. registered itself on the Capacity Booking Platform and entered into the agreement as prescribed in the Capacity Booking Platform Regulation;
ii. in case of network users performing activities requiring a license, the existence of the license issued by the Authority has been verified to the transmission system operator;
iii. has concluded the network usage framework contract pursuant to the business code of the transmission system operator, which contract, among other conditions, lays down the conditions of using the Information Platform;
iv. the contractual securities have made available in the manner stipulated in the business code of the transmission system operator and the Capacity Booking Platform Regulation.
v. Their clearing membership and clearing right has been certified by the Central Counterparty.

e) Capacity shall be booked for each entry and exit point of the natural gas pipeline. The measure of capacity booking is kWh per hour calculated based on the combustion heat of 25/0 °C reference temperature at the entry-exit points.
f) With respect to border crossing (interconnection) entry-exit points and underground storage entry-exit points the start date of the capacity allocation procedures regarding the transmission system shall be defined in the auction calendar of the ENTSO-G, while the start date of the capacity allocation auctions regarding other entry-exit points shall be defined in the capacity allocation calendar stipulated in relevant annex of the Implementation Decree[9] and the transmission system operator's auction calendar prepared based on the auction provisions of the Price Application Decree.
g) The transmission system operator shall only be entitled not to conduct the capacity allocation procedures regarding the capacities published if the right type of capacity is not available at the given entry-exit point in the given service period for commercial or technical reasons.
h) Regarding each relevant point, the transmission system operator shall publish the information specified in paragraph 2.1.2.2 of the Code on its website in a user-friendly manner.
i) In accordance with the Price Application Decree[10], a power plant having mFRR capacity shall be entitled to use ex-post daily capacity in possession of the required authority certificate.

2.1.2.2. Publishing available capacities

a) The transmission system operator shall publish the technical firm capacities and technical interruptible capacities in both flow directions as well as available capacities on its website as follows:

i. the available capacities and capacities booked for the given month in a daily breakdown, for the past 7 years;
ii. in a monthly breakdown for at least 18 months in advance, with at least monthly updates;

[9] Annex No. 15 of the Implementation Decree
[10] Section 11/A (1)

iii. in an annual breakdown for the additional gas years, for 10 years in advance, with monthly updates;
iv. daily updates of the availability of short-term services (offered for the next day);
v. capacities offered for the next hour.

b) The transmission system operator shall ensure that the aggregate value of the capacities offered on the secondary market and booked in contract are disclosed in a daily breakdown and the disclosed data is updated on a daily basis, provided that such data is available to the transmission system operator. The disclosure shall contain the following:

i. the identification of the network point where the capacity was sold;
ii. the type of capacity: entry or exit, firm or interruptible;
iii. the quantity and duration of capacity usage rights;
iv. the type of transaction: transfer, assignment etc.;
v. the total number of transactions/transfers.

c) The transmission system operator shall ensure that the aggregate value of the capacities released in congestion management procedures under contract is disclosed in a daily breakdown and the disclosed data is updated on a daily basis, provided that such data is available to the transmission system operator. The disclosure shall contain the following:

i. the identification of the entry-exit point where the congestion management procedure took place;
ii. the type of capacity: entry or exit, bundled or individual;
iii. the quantity and duration of the change in capacity usage rights;
iv. the type of transaction:
- oversubscription and buy-back scheme,
- one-gas-day firm use-it-or-lose-it mechanism,
- surrender of booked capacity,
- long-term use-it-or-lose-it mechanism.

v. the total number of transactions.

d) The information and documents specified in paragraphs a) to c) above shall be retained by the transmission system operator for all relevant points for at least the past 7 years.
e) Regarding the standard and non-standard firm capacities, the transmission system operator shall announce the available capacities to be offered at the respective capacity auctions by the deadlines specified in the Regulation (EU) 2017/459 or, where a relevant deadline is not provided in such Regulation, by the deadlines as per the Capacity Booking Platform Regulation.

2.1.2.3. Purchased capacity

a) When notifying its demand for additional capacity, the user shall determine the capacity of the exit point (kWh/hour).
b) Where the user determined a demand bigger than its purchased capacity, paragraph 3.2.1 of the Code shall be followed.

c) Where the user wishes to increase its requested capacity within its purchased capacity and the requested capacity is available in the transmission system, the transmission system operator shall register the capacity data.
d) Where the user wishes to increase its requested capacity within its purchased capacity but the requested capacity is not available in the transmission system, the transmission system operator shall record the request. Pursuant to the relevant provision of the Gas Supply Act[11], if the user failed to book its purchased capacity or part of it in two subsequent gas years, it may use it no sooner than on the first day of the second gas year from notifying its demand, unless otherwise agreed with the transmission system operator. When determining the network user's booking against the purchased capacity, short-term capacity products (quarterly, monthly, daily, and within-day capacities) shall also be taken into consideration.

2.1.2.4. Interruptible capacity booking

a) The transmission system operator may offer interruptible available capacities on the entry-exit points where firm capacities have been sold per capacity products in accordance with the provisions of Regulation (EU) 2017/459 and the Price Application Decree or where, due to transmission conditions or technical features, only interruptible capacities can be offered.
b) The capacity allocation procedure related to interruptible capacities shall be conducted after the firm capacity allocation announced and successfully closed for the same service period and before the next firm short-term product capacity allocation procedure.
c) Interruptible capacities in the reverse direction of the physical flow may be offered on the basis of agreements made with the neighbouring network operators.
d) Interruptible capacities may be called on with the terms and conditions, and to the extent agreed in the network usage contract concluded with the transmission system operator. In case of interruption, no natural gas may be supplied into or taken from the network from the interrupted capacities over the extent indicated in the interruption notification.

[11]Section 71(3) of the Gas Supply Act

2.1.2.5. Capacity booking via over-nomination procedure

a) Allocation of within-day interruptible capacities at entry-exit points is carried out via an over-nomination procedure, unless the Authority provides otherwise for a certain border crossing (interconnection) entry-exit point.
b) Over-nomination is allowed for those entry-exit points, where all firm capacities have been booked or firm capacity has not been announced.
c) Over-nomination for the given gas day can be submitted from 7.00 p.m. on the gas day preceding the given gas day, after the daily interruptible auction has been closed and if the conditions stipulated in paragraph b) are fulfilled.
d) The given network user's nomination increased by over-nomination shall not exceed the extent of the interruptible technical capacity of the given entry-exit point.
e) If the network user's nominatable capacity at a given entry-exit point in the given flow direction is less than its nomination and the transmission system operator has offered interruptible capacity, within-day interruptible capacity shall automatically be allocated on the whole imbalance when submitting the over-nomination, from the first gas hour subject to over-nomination until the end of the gas day. Such booked capacity cannot be withdrawn by a potential lower renomination.
f) Following the allocation specified in paragraph e), the transmission system operator shall notify the network user about the result of the allocation, and with such allocation an electronic network usage contract complying with the business code of the transmission system operator is concluded on the Information Platform.

2.1.3. Booking of distribution system operator's capacity

2.1.3.1. General rules

a) The distribution system operator undertakes to provide continuous natural gas distribution up to the firm capacity booked under the network usage contract, with the exception of shutdowns arising as a result of scheduled maintenance, and also malfunction, restrictions and emergency situations.
b) The network user shall be entitled to book the distribution system operator's capacity based on the capacity booking right transferred to it by the consumers supplied by such network user, up to the purchased capacities of the concerned PODs and the own usage of the consumers acting on own account. Changes in the relevant basic data of the Quality Accounting Rules occurring after the contract has been concluded with the consumer shall mean that a +/- 1% potential imbalance must be taken into consideration when determining the purchased capacity in kwh/h, and the distribution system operator's capacity booking may be modified by this value. The distribution system operator shall keep record of the purchased capacities of the PODs in accordance with paragraph q).
c) If the natural gas producer connects during the gas year, the concerned distribution system operator shall announce the new entry capacity as appropriate short-term capacity product.
d) If the purchased capacity of the POD or a part thereof has not been booked by the network user in the previous two consecutive gas years at the POD as natural gas distribution system exit point and there is no available capacity, usage of the purchased but not booked capacity shall at the earliest start – if no other agreement has been

concluded with the system operator - on the first gas day of the second gas year following the submission of the request notification. When determining the network user's booking against the purchased capacity, short-term capacity products (quarterly, monthly, daily, and within-day capacities) shall also be taken into consideration.

e) The distribution system operator must check the capacity demanded for booking, which cannot exceed the purchased capacity.
f) The network user may book capacities at the natural gas distribution system for a gas year, for a quarter, a month or day of the gas year and within a gas day. Only network users having a network usage contract in relation to any exit point of the natural gas distribution system may submit a capacity booking demand. The distribution system operator shall provide the capacity bookings to the network user under a network usage contract and in accordance with its business code.
g) The capacity booking request shall be submitted to the distribution system operator.
h) For consumers obliged to book capacities, the network user shall provide its capacity booking demands to the distribution system operator separately for each POD.
i) Consumers acting on own account shall provide the hourly peak capacity demand for the POD, while the network user– if it represents more consumers– for the gas delivery station and the POD.
j) The distribution system operator shall examine the received capacity booking requests.
k) If the form and content of the capacity booking request complies with the provisions of the Data Exchange Regulation specified in Annex IX and also with the relevant law, the distribution system operator shall accept the capacity booking request and shall notify the network user about such acceptance in accordance with the provisions of the Data Exchange Regulation.
l) The distribution system operator shall evaluate the feasibility of the accepted capacity booking requests based on a hydraulic analysis, taking into consideration the technical restrictions of its own network and also those of the transmission system.
m) If the capacity booking request fails to comply with the law and/or the Data Exchange Regulation in form and/or content, the distribution system operator shall reject the capacity booking request pursuant to the provisions of the Data Exchange Regulation.
n) The distribution system operator may reject the capacity request of the network user requesting capacity in the cases specified in the relevant provisions of the Gas Supply Act and the Implementation Decree[12]. The distribution system operator shall justify the rejection of the capacity booking request in accordance with the rules of the Data Exchange Regulation. The network user may appeal against the decision of the distribution system operator before the Authority.
o) The distribution system operator shall keep record of the following capacities due for the consumers:

    i. Purchased capacity of the POD (m^3/hour and kWh/hour);
    ii. Booked capacity of the POD (kWh/hour);

p) The following formula shall be used to express the recorded purchased capacity in kWh/hour:

[12]Section 77 of the Gas Supply Act

i. Purchased capacity [kWh/hour] = purchased capacity $[m^3/hour]_{15}$ * conversion rate $K_{15/0,(2H)}$ or $K_{15/0,(2S)}$ or $K_{15/0,(inert)}$ specified in the Quality Accounting Rules * weighted average gross calorific value $[kWh/m^3]$ published in the Quality Accounting Rules for the concerned gas delivery station.

q) Capacity booking is carried out in relation to the exit point of the distribution network (the point of delivery).
r) If the natural gas distribution system is supplied by more than one gas delivery stations, the distribution system operator shall qualify the exit points of the natural gas distribution system and shall specify from which gas delivery station's available capacity will their supply be provided during normal operation.
s) If a network user connecting to the natural gas distribution system is supplied from such exit point of the distribution network in relation to which it is not clear from which gas delivery station the supply is provided and the transmission system operator merged the concerned exit or entry points in one commercial point, the natural gas distribution network user may book capacities up to the available capacity of the merged gas delivery station.
t) The distribution system operator shall provide to the network user the capacities that still have to be booked to comply with the Price Application Decree until the 20th of March of each gas year, as specified in Annex IX of the Code.

2.1.3.2. Booking of firm capacities

2.1.3.2.1. Annual capacity booking

a) The network user may submit an annual capacity booking request for the natural gas distribution system's exit points for the next gas year until the first Monday of August each year.
b) The duration of the annual capacity bookings is one gas year. The capacity booking (service) period starts on the first day of the gas year, i.e. on the 1st of October at 6.00 a.m. and ends on the first day of the next gas year, i.e. on the 1st of October at 6.00 a.m.

2.1.3.2.2. Capacity booking for off-winter consumption period within the gas year

a) The network user may submit an off-winter consumption period capacity booking request in relation to the natural gas distribution system's exit points for the next gas year until the 21st day before the start of each gas year.
b) The conditions of off-winter consumption period capacity booking within the gas year are included in the Price Application Decree.

2.1.3.2.3. Quarterly capacity booking

a) The network user may submit a capacity booking request for a given quarter until the first Monday of December, March, June and September (if such day falls on a public holiday, the capacity booking deadline shall be the first business day following such public holiday).
b) The capacity booking period shall start on the first gas day of the calendar quarter and shall end on the first gas day of the next calendar quarter as follows:

01 January 6.00 a.m. – 01 April 6.00 a.m.
01 April 6.00 a.m. – 01 July 6.00 a.m.
01 July 6.00 a.m. – 01 October 6.00 a.m.
01 October 6.00 a.m. – 01 January 6.00 a.m.

2.1.3.2.4. Monthly capacity booking

a) The network user may submit a monthly capacity booking request for the available capacities until the fifth working day preceding the first day of the subject month.
b) The duration of the capacity bookings is one month. The capacity booking period shall always start at 6.00 a.m. on the first day of the month indicated in the capacity booking request and shall end at 6.00 a.m. on the day following the last day of the capacity booking period.

2.1.3.2.5. Daily capacity booking

a) The network user may submit a capacity booking request for the available capacities until 4.30 p.m. on the gas day preceding the concerned gas day.
b) The capacity booking period shall always start at 6.00 a.m. on the gas day indicated in the contract and shall end at 6.00 a.m. on the day next gas day.

2.1.3.2.6. Within-day capacity booking

a) The capacity booking period shall always start at the gas hour indicated in the contract on the gas day indicated in the contract and shall end at 6.00 a.m. on the next gas day.
b) The network user may submit a capacity booking request for the available capacities in the first half hour of the third hour preceding the gas day's hour subject to the capacity demand.

2.1.3.3. Interruptible capacity booking

Interruptible capacity booking is not permitted at the distribution system operator.

2.1.4. Booking of storage system operator's capacity

2.1.4.1. General rules

a) Capacities offered for booking by the storage system operator licensee under the basic services for a period of less than one storage year or for one or more storage years:

   i. Firm capacity:
      - working gas capacity (kWh);
      - injection capacity (kWh/day);
      - withdrawal capacity (kWh/day).
   ii. Interruptible capacity:
      - injection capacity (kWh/day);
      - withdrawal capacity (kWh/day).

b) The above injection and withdrawal capacities provide seasonal natural gas storage opportunity for the network user.
c) The capacity booking request shall be submitted to the storage system operator licensee in accordance with the procedure set forth in the Code.
d) For capacity booking purposes, domestic commercial natural gas underground storages belonging to the same licensee shall operate as a Unified Underground Storage.
e) The injection and withdrawal capacities shall be booked as the highest daily values (kWh/day), assuming flat load demand within a gas day, i.e. the hourly booking (kWh/h) equals to 1/24th of the daily booking.
f) The storage system operator licensee - taking into consideration the technical opportunities - may also provide a so-called “virtual natural gas storage service”, which is the opposite of the periods (in the injection period withdrawal, while in the withdrawal period injection). The storage system operator licensee may provide virtual natural gas storage service as a special or optional service.

2.1.4.2. Publishing available capacities

a) The storage system operator licensee shall publish the available storage system operator’s capacities that can be booked for the next storage year on its website and on the storage system operator’s Information Platform until the 31st of January each year.
b) The storage system operator licensee shall publish on its website the information on its capacities that can be booked as follows:

   i. nominal capacities;
   ii. available capacities;
   iii. booked capacities.

c) The storage system operator licensee shall – in relation to capacity booking - continuously update on its website the Unified Underground Storage capacities specified in paragraph b).
d) The order of publishing interruptible capacities corresponds to the above rules applicable to publishing firm capacities.

2.1.4.3. Booking of firm capacities

2.1.4.3.1. Annual or multi-annual capacity booking before the storage year

a) The storage system operator licensee accepts capacity booking demands for the next storage year(s) on a continuous basis. Demands shall be submitted so that the storage system operator licensee receives them by the first Monday of March. Should the network user’s demand fail to arrive by the deadline, the storage system operator licensee shall not be required to make the capacity available in the framework of this procedure.
b) For one-year bookings, the service period starts at 6 a.m. on 1 April every year and ends at 6 a.m. on 1 April in the next year.

c) For capacities booked for multiple years, the service period starts at 6 a.m. on 1 April in the year specified by the network user (or at the time as required by the developments, if any) and ends at 6 a.m. on 1 April in the closing year.
d) The capacity shall be requested on the storage system operator's Information Platform, specifically, on the capacity booking platform. If such function is not available or inoperative at the storage system operator's Information Platform, the request shall be submitted in the manner specified in the storage system operator licensee's business code.
e) Capacity booking demands have a binding effect, they cannot be withdrawn and, once submitted, may only be amended upon request by the storage system operator licensee.
f) A capacity booking demand shall contain:

   i. Where capacity bundles are offered:
      - the number of capacity bundles requested, broken down to bundles to be supplied to customers in universal service and the rest (number);
      - the requested service period (one year or multiple years);
      - planned monthly schedule of injection and withdrawal (kWh/month);
      - the EIC code used to identify the network user.
   ii. Where capacities are offered individually:
      - the requested working gas capacity (kWh);
      - the requested withdrawal capacity (kWh/day);
      - the requested injection capacity (kWh/day);
      - the requested capacity, broken down to bundles to be supplied to customers in universal service and the rest;
      - the requested service period (one year, multiple years);
      - planned monthly schedule of injection and withdrawal (kWh/month);
      - the EIC code used to identify the network user.

g) The following annexes must be attached to the capacity booking demand:

   i. a copy of the operating license (if the network user has a licence);
   ii. documents of financial securities;
   iii. a declaration of commitment to ensure the quality of natural gas to be stored.

h) The capacity booking demand shall be examined by the storage system operator licensee in terms of formal requirements upon receipt.
i) Once received and accepted in terms of formal requirements, the feasibility of the capacity booking demand will be assessed by the storage system operator licensee by having regard to the technical restrictions of the storage system.
j) The storage system operator licensee may reject the demand submitted by the capacity applicant in the following cases:

   i. the submitted demand is defective or deficient,
   ii. the demand is received after the expiry of the deadline,
   iii. the available storage capacity offered for booking and necessary for meeting the demand is missing (overbooking),

iv. the quality of the natural gas intended to be injected to storage does not fulfil the requirements set out in the Implementation Decree[13].

k) The storage system operator licensee must give the reasons for rejection of the demand.
l) The storage system operator licensee shall fulfil the valid demands in the following order and manner:

i. Provided that the capacity demands submitted by network users do not exceed the available storage capacity offered for booking at the annual announcement, the storage system operator licensee shall confirm all valid capacity demands to network users and conclude the natural gas storage contracts.
ii. Where the capacity demands submitted by network users exceed the available storage capacity offered for booking at the annual announcement, the storage system operator licensee shall announce a capacity auction for available capacities in line with the provisions of the business code. Only those network users may participate at the auction who submitted a valid capacity booking demand during the capacity booking process for the available storage capacities offered for booking at the annual announcement.

m) With those submitting capacity booking demands accepted in terms of formal requirements to whom it has allocated storage capacities in accordance with paragraph (l), the storage system operator licensee shall conclude storage contracts by 31 March at the latest, in line with the accepted demands.

2.1.4.3.2. Capacity booking within a storage year

a) During the storage year, the storage system operator licensee continuously accepts demands for the remaining period of the storage year. Capacity booking demands for a period shorter than one storage year shall be fulfilled by the storage system operator licensee pursuant to the conditions laid down in its business code and/or the rules published on its website.
b) Incoming demands shall be examined by the storage system operator licensee and, in case of overbooking, allocated within the framework of the procedure specified in its business code.
c) Within the storage year, the storage system operator licensee may also announce the storage services other than the firm annual seasonal storage services in the framework of open auction procedures announced in an invitation to tender published on its website or other open procedures available for everyone, in accordance with its business code.

2.1.4.4. Interruptible capacity booking

a) In the framework of optional or individual services, the storage system operator licensee may also sell injection and withdrawal capacities as interruptible capacities. In

[13] Annex 11

connection with these services, interruptible injection and/or withdrawal capacities can be interpreted in the following cases, save as otherwise regulated by law:

i. If the firm injection and/or withdrawal capacity announced by the storage system operator licensee has been fully booked, or
ii. if – taking into consideration the technical opportunities – the opposite direction to the seasonal period (withdrawal in the injection period, injection in the withdrawal period) can be realised up to the possible extent of physical flow, or
iii. pursuant to the relevant provisions of the Gas Supply Act[14], the storage system operator licensee may offer booked but unused capacities for sale as at least interruptible capacities for the other network users where the network user owning the capacity did not give instructions for the sale thereof, or
iv. the storage system operator licensee may offer its available daily capacity not nominated (by network users) as interruptible capacity on the storage system operator's Information Platform on a daily basis, or
v. following the sale of the storage system operator's annual capacity product and provided that the technical conditions are met, the storage system operator licensee may offer its available injection and/or withdrawal capacity ensuring a physical flow corresponding to seasonal periods for sale as interruptible capacity on the storage system operator's Information Platform.

b) Interruptible injection or withdrawal capacities may only be booked if the applicant has working gas capacities which are booked or, at the same time with booking the interruptible capacities, it also books working gas capacities. Working gas capacity may not be applied for on an interruptible basis.

2.1.5. Surrender and taking back of capacities

2.1.5.1. Surrender and taking back of transmission capacities

2.1.5.1.1. Surrender of booked capacity

a) Save for daily or within-day capacity bookings, the transmission system operator shall accept the surrender of firm capacity booked at a given border crossing (interconnection) entry-exit point by the network user. Bundled capacity may only be surrendered as bundled capacity.
b) Firm capacities offered for surrender shall be taken into consideration as available capacities in the sale of short-term capacities if they were surrendered before 12.00 midnight on the business day prior to the announcement date of the auction concerning the given short-term capacity.
c) The rights and obligations arising from the network usage contract shall be reserved by the network user until any part of the capacity surrendered by it is sold again by the transmission system operator, of which the transmission system operator shall immediately notify the network user.
d) The capacity offered for surrender shall be recorded among the available capacities for network users during capacity booking procedures.

[14] Section 73 (2) of the Gas Supply Act

e) Capacities offered for surrender may only be sold after the sale of other firm capacities of the transmission system operator available at the given network point. Surrendered capacities shall be sold based on time stamps; capacities surrendered earlier shall be sold first.
f) Surrendered capacities shall not be sold in secondary capacity trade; and they shall not be transferred to another network user, not even in the case of customer migration.
g) A given quantity delivered or taken over by a given network user shall be taken into consideration in secondary capacity trade in terms of capacity surrender so that the quantity delivered by the user shall reduce but the quantity taken over by the user shall not increase the capacity that the given network user can surrender.
h) In a capacity surrender procedure, if the transmission system operator has in part or in full sold the surrendered capacity, it shall carry out settlement with the surrendering network user in accordance with the Price Application Decree. The given network user shall not receive any part of the auction premium income, if any, received by the transmission system operator from the sale of the surrendered capacity at the capacity auction.

2.1.5.1.2. Taking back long-term booked capacities (long-term use-it-or-lose-it mechanism)

a) The surrender of a part or the whole of the capacity booked but systematically underutilised by the network user at a given border crossing (interconnection) entry-exit point shall be accepted if the unused capacity was not sold by the network user in secondary capacity trade, and other network users request firm capacity booking at the given border crossing (interconnection) entry-exit point, but there is not enough firm capacity available at the given point.
b) Booked capacities may be considered systematically underutilised if:

    i. the network user uses less than on average 80 % of its booked capacity both from 1 April until 30 September and from 1 October until 31 March with an effective contract duration of more than one year for which no proper justification could be provided; or
    ii. the first nomination submitted for a given gas day is regularly higher than 80 per cent of the capacity booked, but the last valid nomination resulting from the renomination(s) submitted for the given gas day is less than 80 per cent of the booked capacity.

c) If, based on the allocated data, the transmission system operator finds that the network user holding a contract concluded for a period longer than one year, on average uses less than 80 per cent of the booked capacity both between 1 April and 30 September, and 1 October and 31 March, the transmission system operator shall notify the Authority and the network user concerned about the fact of the unused capacity. In the notice, the transmission system operator shall indicate if other network users submitted requests for firm capacity at the given network point which request could not be satisfied due to lack of available capacity. At the request of the Authority, the network user shall show within 5 days that the capacity booked but not used has been sold or offered for sale in secondary capacity trade, and offer the reasons for the same. If, based on the reasoning, the Authority decides that the unused capacity has not been

offered for sale by the network user with reasonable terms and conditions in the secondary market, then it shall issue a resolution in which it orders the capacity to be taken to the transmission system operator and to be offered for sale.

d) The application of the firm day-ahead use-it-or-lose-it mechanism shall not be considered as sufficient reason for not applying paragraph (a).
e) As a result of the take back, the booked capacity is lost by the network user for a given period or the unused capacity is lost in part or in whole for the remaining period of the contract.
f) The rights and obligations arising from the network usage contract shall be reserved by the network user until any part of the capacity taken back is allocated again by the transmission system operator of which the transmission system operator shall immediately notify the network user.
g) Capacities taken back shall not be sold in secondary capacity trade; and they shall not be transferred to another network user, not even in the case of customer migration.
h) A given quantity delivered or taken over shall be taken into consideration in secondary capacity trade in terms of the long-term use-it-or-lose-it mechanism so that the quantity delivered shall reduce but the quantity taken over shall not increase the capacity that can be taken back.
i) Capacities taken back may only be sold after the sale of other available firm capacities of the transmission system operator at the given point. Capacities taken back shall be sold based on time stamps; capacities taken back earlier shall be sold first.
j) The provisions of paragraphs (a) and (b) shall be applied to the capacities obtained in the secondary capacity market. In this case, the provisions of paragraph (i) regarding the capacity booking fee shall be enforced against the primary capacity booking network user, while with respect to the volume and odourisation fee they shall be enforced against the network user to whom the capacity was transferred in the secondary market. With respect to the contractual relationship between the parties delivering and taking over capacity participating in the secondary capacity market transaction, the transmission system operator shall not bear any liability whatsoever, as such contractual relationship shall not stipulate any obligation for the transmission system operator. Following the completion of the take back and the re-sale, the party delivering and taking over capacity shall settle with each other regarding their other rights and obligations arising from the secondary market transaction.
k) In a long-term use-it-or-lose-it procedure, if the transmission system operator has in part or in full sold the capacity taken from the network user, it shall follow the Price Application Decree in settling accounts with the network user who lost the capacity. The given network user shall not receive any part of the auction premium income, if any, received by the transmission system operator at the capacity auction from the sale of the capacity taken away.

2.1.5.1.3. Capacity extension by applying the oversubscription and buy-back scheme

a) The transmission system operator shall, before 30 November of the year before the following gas year, propose to the Authority an incentive-based oversubscription and buy-back scheme in order to offer additional capacity on a firm basis. If the proposed mechanism is approved by the Authority, the transmission system operator shall

implement such mechanism prior to the following gas year and offer extra capacity for booking for the following gas year before 31 December. Extra capacity shall mean the firm capacity offered over and above the technical capacity defined for the border crossing (interconnection) entry-exit point.

b) The mechanism shall be developed in a way that the transmission system operator and the network users share the income from the sale of the extra capacity and the costs arising from the repurchase or the measures under paragraph (e). The Authority shall define the distribution of the income and the costs between the transmission system operator and the network users.
c) When the income of the transmission system operator is defined, the allocation of the technical capacity, within this in particular the surrendered capacity and capacity arising from the application of the long-term use-it-or-lose-it mechanisms shall be considered to have taken place before that of the extra capacity, if any.
d) In defining the extra capacity, the transmission system operator shall take into consideration the statistical scenarios related to the possible quantities of existing capacities, but physically unused at the border crossing (interconnection) entry-exit points at different points in time. Furthermore, when offering extra capacity, the transmission system operator shall take into consideration a risk profile that does not entail excessive repurchase obligation. The oversubscription and buy-back scheme should provide an estimate as to the possibility and costs of market capacity repurchases, and such estimate shall be taken into consideration in defining the value of the extra capacity offered.
e) If it is necessary in order to maintain the integrity of the system, the transmission system operator shall apply a transparent market based repurchase procedure that allows network users to offer capacities. Network users shall be notified of the repurchase procedure to be applied. The application of the repurchase procedure shall not affect the implementation of emergency measures.
f) Prior to the application of the repurchase procedure, the transmission system operator shall verify that the system integrity cannot be maintained through other technical and commercial measures in a more cost effective manner.

2.1.5.1.4. Firm day-ahead use-it-or-lose-it mechanism

a) In consultation with the relevant neighbouring national regulatory authority, the Authority may oblige the transmission system operator to apply the one-gas-day firm use-it-or-lose-it mechanism at a given border crossing (interconnection) entry-exit point where, in its monitoring report prepared by ACER (in accordance with Regulation (EC) 715/2009[15]) regarding the congestions at the given border crossing (interconnection) entry-exit point it is shown that the demand exceeded the offer, at the reserve price when auctions are used, in the course of capacity allocation procedures in the year covered by the inspection or in any of the subsequent two years, as follows:

    i. for at least three firm capacity products with a duration of one month or
    ii. for at least two firm capacity products with a duration of one quarter or
    iii. for at least one firm capacity product with a duration of one year or more or

[15] Annex I Article 2.2.1(2)

iv. where firm capacity product with a duration of one month or more has not been offered.

b) Under the procedure, the renomination restrictions on the long-term, quarterly and monthly firm capacities of the network user will be determined as follows separately for each hour of the given gas day, based on the firm capacity available in the given gas hour pursuant to paragraph (d) and the nomination submitted for the gas hour in accordance with paragraph (e):

Nomination	**Minimum quantity limit for firm capacity in a potential renomination**	**Maximum quantity limit for firm capacity in a potential renomination**
$20\% < \sum Q_{fnom} \leq 80\%$	$\sum Q_{fcap} * 10\%$	$\sum Q_{fcap} * 90\%$
$\sum Q_{fnom} > 80\%$	$\sum Q_{fcap} * 10\%$	$\sum Q_{fcap} - ((\sum Q_{fcap} - \sum Q_{fnom})/2)$
$\sum Q_{fnom} \leq 20\%$	$\sum Q_{fnom} / 2$	$\sum Q_{fcap} * 90\%$

$\sum Q_{fnom}$: the total quantities nominated by the network user for the firm capacities available pursuant to paragraph (d) within a given network point.

$\sum Q_{fcap}$: the total firm capacities available for the network user pursuant to paragraph (d) within a given network point.

The application of the firm day-ahead use-it-or-lose-it mechanism must not affect the application of measures to be applied in the case of emergency, natural gas supply disruption or technical failure.

c) The network user may renominate the part of its contracted firm capacity restricted in accordance with paragraph (b) on an interruptible basis. From the network user's capacity portfolio, first the long-term, and then, in this order, the annual, quarterly and monthly firm capacities shall be restricted. Where, from a given type of capacity, both bundled and non-bundled firm capacities are available for the network user, these shall be restricted on a pro rata basis.

d) Firm capacities available pursuant to paragraph (b) shall be determined by taking the following transactions into consideration:

i. up to primary capacity, the capacities booked in allocation mechanisms;
ii. capacity changeover (capacity conversion) demands accepted by the transmission system operator;
iii. capacities delivered and taken over in customer migration, with the correct positive or negative sign;
iv. capacities delivered and taken over with capacity transfer and/or right of use of capacities in secondary capacity trade, with the correct positive or negative sign;
v. Capacities fixed as surrendered or taken back in capacity surrender and long-term use-it-or-lose-it mechanisms shall reduce the available firm capacities taken into consideration during the procedure.

e) Renomination restrictions pursuant to paragraph (b) for the given gas day shall be determined for the given network user by 4.00 p.m. on the calendar day preceding the given gas day on the basis of the nominations submitted for the given gas day by 2.00

p.m. and the booked firm capacities determined in accordance with paragraph (d). The transmission system operator shall notify the given network user of the result.

f) The network user shall not be entitled to reimbursement of the capacity-based transmission tariff or nomination imbalance surcharge from the transmission system operator on account of the restrictions as per paragraph (b); and if the interruptible capacity offered during the restriction is interrupted, the network user is not entitled to any fee discount.

g) The restriction as per paragraph (b) shall not apply to network users as per Regulation (EC) 715/2009[16]. Applicability shall be examined based on the available firm capacities determined under paragraph (d).

h) If, on the basis of the yearly monitoring report as per paragraph a), it is shown that a situation as defined in paragraph a) is unlikely to reoccur in the following three years, the Authority may decide to terminate the firm day-ahead use-it-or-lose-it mechanism at the given border crossing (interconnection) entry-exit point.

i) On border crossing (interconnection) entry-exit points regarding which the Authority orders the application of a firm day-ahead use-it-or-lose-it mechanism, an evaluation of the relationship with the oversubscription and buy-back scheme pursuant to paragraph 2.1.5.1.3 of the Code shall be carried out by the Authority, which may result in a decision by the Authority that the transmission system operator is not obliged to apply the provisions of paragraph 2.1.5.1.3 of the Code at the border crossing (interconnection) entry-exit points in question. Such a decision of the Authority shall be notified, without delay, to ACER and the Commission.

[16] Annex I Article 2.2.3(5)

2.1.5.2. Surrendering and taking back distribution system operator's capacities

The distribution system operator does not provide the network users with the possibility to surrender or take back capacities.

2.1.5.3. Surrendering and taking back underground storage capacities

The storage system operator licensee does not provide the network users with the possibility to surrender or take back capacities.

2.1.6. Capacity booking in case of customer migration

a) Consumers have the right to migrate to another natural gas trader as described in the relevant provisions of the Gas Supply Act and Implementation Decree in force[17].
b) Should the consumer migrate to another natural gas trader, the previous trader shall deliver to the consumer or the new natural gas trader acting on behalf of such consumer the distribution system's exit point capacities of the transmission system and distribution system operator's capacities booked for the supply of the consumer or for the own supply of the consumer acting on own account, which – with the exception stipulated by the law - the consumer or the new natural gas trader shall be obliged to book for the remainder of the gas year.
c) Should the consumer migrate to another trader during the gas year, the distribution system operator shall grant to the new trader all distribution system capacities booked by the previous trader and relating to the supply period of the new trader. Data supply shall be carried out as determined in Annex IX of the Code.

2.1.7. Secondary capacity trade

2.1.7.1. General rules

a) Network users with capacity bookings may sell a part or all of the capacities booked by them to other network users.
b) Network users may, under secondary capacity trade, also sell those capacities for which they acquired a right of disposal under secondary capacity trade.
c) The network user may submit a capacity booking request for a given quarter until the first Monday of December, March, June and September (if such day falls on a public holiday, the capacity booking deadline shall be the first business day following such public holiday).

2.1.7.2. Secondary trade of transmission system operator's capacities

a) Network users shall announce their secondary capacity sale demands or demands for taking back capacities and the main parameters thereof on the Capacity Booking Platform until the deadline specified in the business code of the transmission system operator.

[17]Section 31/A-C of the Gas Supply Act and Section 26/A-B of the Implementation Decree

b) During secondary capacity trade transactions it shall be specified whether the contracted capacity or the usage right of the capacity is transferred.
c) If the contracted capacity is transferred, the entry-exit point capacity booking fees and also the volume based network usage fee and odourisation fee shall be paid by the secondary receiving Network User to the system operator. If the contracted capacity is transferred, the receiving Network User shall be entitled to the same rights and obligations as those stipulated in the contract of the transferring Network User.
d) If the usage right of the capacity is transferred, the original network user shall continue to pay the entry-exit point capacity booking fees to the system operator pursuant to the primary network usage contract. The volume based network usage fee and odourisation fee shall be paid by the secondary receiving Network User.
e) If the original capacity holder loses its network usage right, either temporarily or permanently, the system operator shall be entitled to take back the capacity booked by the given network user, including capacities with a usage right that has already been transferred by the capacity holder to third parties under a secondary capacity trade.
f) The main parameters and conditions of the capacity sale demand are stipulated in the business code of the transmission system operator and the relevant chapters of the Capacity Booking Platform Regulation.
g) Capacities re-sold in secondary transactions may only be enforced once they are confirmed by the other party participating in the capacity sale and by the transmission system operator. Until the re-sold capacity is confirmed, the transferring Network User shall have the rights and obligations arising from capacity usage.
h) Monitoring of transmission system capacity overruns shall be performed by the transmission system operator with a view to secondary capacity sales. As part of this, in relation to the capacities available to the network user at the given network point and in the given service period, the capacities taken over by such network user from other network users in secondary capacity trade shall be considered as increasing factors, while capacities delivered by it to other network users in secondary capacity trade shall be considered as reducing factors.

2.1.7.3. Secondary trade of distribution system operator’s capacities

The distribution system operator does not provide the network users with the opportunity of secondary capacity trade.

2.1.7.4. Secondary trade of storage system operator’s capacities

a) Network users participating in secondary capacity trade transactions and entering into a contract shall notify the storage system operator licensee about the fact of entering into a contract in relation to the transaction in the manner and until the deadline specified in the business code of the storage system operator licensee. Both network users shall always make such notification on the storage system operator’s Information Platform.
b) The secondary capacity handover and takeover transfer is fulfilled if the storage system operator has assessed the transaction and no obstacles in relation to carrying out such transaction have been identified.

c) The storage system operator shall publish the consideration and the payment conditions of the transfer of secondary capacity trade transaction in its business code or on its website.

2.1.8. Operation and usage rules of the Hungarian Virtual Trading Point (MGP)

a) Unless specified otherwise by the transaction conducted on the TP, organised natural gas market and other markets, the performance and settling of title transfer transactions shall be carried out at the “Hungarian Virtual Trading Point (MGP)”.
Settling the network users’ commercial imbalance position remaining at the end of the gas day under a balancing gas transaction shall also be carried out at the “Hungarian Virtual Trading Point (MGP)”.
b) To use the “Hungarian Virtual Trading Point (MGP)”, network users shall enter into a network usage contract with the transmission system operator, which shall contain the conditions on title transfer as well. The Central Counterparty shall deliver transaction notifications to the transmission system operator under the interconnection agreement concluded with the transmission system operator and/or the organised natural gas market licensee.
c) The capacity of the “Hungarian Virtual Trading Point (MGP)”as a virtual point shall be available without restrictions. When using the “Hungarian Virtual Trading Point (MGP)”, network users shall not book capacities, and they shall not pay any transmission capacity fees or transmission volume fees with respect to the “Hungarian Virtual Trading Point (MGP)”.
d) Any and all volumes specified in the transaction notification of a transaction conducted in relation to the “Hungarian Virtual Trading Point (MGP)” as place of performance shall be allocated in the transmission portfolio of the concerned network users.

2.1.9. Merging entry or exit points at the transmission system

2.1.9.1. Merging entry points

a) Storage system operators or natural gas producers may initiate the merge of storage or production entry points at the transmission system points with the following terms and conditions:

i. All entry points to be merged shall be held by the same storage system operator or natural gas producer.
ii. The storage or production points shall be connected to the interconnected transmission system.
iii. The storage system operator or natural gas producer shall provide the available and planned capacities per year/day/hour separately for each entry point specified in the merge in order to ensure that the transmission system operator can carry out the hydraulic analysis of the entry points and the system.
iv. Natural gas of the same gas group shall be injected at a single physical entry point.

b) The capacity of the merged entry point shall not be less than the sum of the capacities of the entry points that have been merged, expressed in kWh/hour and kWh/day.
c) The transmission system operator shall within 30 business days confirm the acceptance of such submitted demands that comply with the terms and conditions.
d) The merge of the concerned entry points shall enter into force on the first day of the gas month specified in the merge confirmation.
e) The confirmed merge shall remain valid until the transmission system operator or the neighbouring network operator initiates the justified amendment thereof.
f) If the entry points are merged, network users shall book and nominate capacities for the merged entry point.
g) If the entry points are merged, the neighbouring network operator's technical capacity available at each network point of the merged entry point cannot exceed

   i. the maximum capacity of the entry point, or
   ii. the maximum entry capacity provided by the natural gas producer for the current gas year, or
   iii. the maximum entry capacity provided by the storage system operator for the current gas year.

h) For those entry points where blending gas is requested by the natural gas producer from the transmission system for quality improvement, and such blending gas is delivered by the transmission system operator as firm capacity, the blending gas capacity shall be taken into consideration when determining the technical capacity of the entry point.
i) No technological amendments at the transmission system may be initiated on grounds relating to the merge.
j) Neighbouring network operators shall operatively cooperate in relation to stopping, launching the entry points specified in the merge and in relation to amending the important operations thereof.
k) If specifically asked by the transmission system operator, the neighbouring network operator shall within one hour divide the demands nominated for the given period among the entry points included in the merged entry point and shall forward such division to the transmission system operator.
l) The transmission system operator shall subsequently, within two hours initiate an operative consultation on the operation and the modification of the division as necessary. A failure to do so will result in accepting the division provided by the neighbouring network operator.

2.1.9.2. Merging exit points

a) The neighbouring network operator shall initiate the merge of capacity bookings of exit points at the transmission system operator.
b) The capacity of the merged exit point shall not be less than the sum of the capacities of the exit points that have been merged, expressed in kWh/hour.
c) The neighbouring network operator shall support its request with a system description justifying that the natural gas distribution systems connected to the gas delivery stations are directly interconnected, therefore natural gas can be delivered to

consumers of the natural gas distribution system from the concerned gas delivery stations, taking into consideration the expected operational conditions.

d) The transmission system operator shall within 30 business days confirm the acceptance of such submitted demands that comply with the terms and conditions.
e) The merge of the concerned exit points shall enter into force on the first day of the gas month specified in the merge confirmation.
f) The confirmed merge shall remain valid until the transmission system operator or the neighbouring network operator initiates the justified amendment thereof.
g) There are two types of merges when capacity booking is considered:

   i. Merge type I may be initiated if all the below terms and conditions are simultaneously met:
      - The exit points to be merged are connected to the contiguous natural gas distribution system held by the same neighbouring network operator and are located within the same fenced area.
   ii. Merge type II may be initiated if all the below terms and conditions are simultaneously met:
      - The exit points to be merged are connected to the contiguous natural gas distribution system held by the same neighbouring network operator and are located at different fenced areas.
   iii. If merge type I or II of exit points is carried out, network users shall book and nominate capacities for the merged exit point. The kWh/hour capacity values of the capacity bookings must be the same at the exit point of the transmission system and the entry point of the natural gas distribution system for each merged exit point and network user.

h) If merge type I or II of exit points is carried out, the following rules shall be applied:

   i. The technical capacity of individual network points of the merged exit point must not exceed the maximum capacity of the given network point. The transmission system operator shall define the technical capacity based on the expected hydraulic conditions of the currents gas year.
   ii. No technological amendments at the transmission system may be initiated on grounds relating to the merge.
   iii. Neighbouring network operators shall operatively cooperate in relation to stopping, launching the exit points specified in the merge and in relation to amending the important operations thereof.
   iv. If specifically asked by the transmission system operator, the neighbouring network operator shall within one hour divide the demands nominated for the given period among the exit points included in the merged exit point and shall forward such division to the transmission system operator.
   v. The transmission system operator shall subsequently, within two hours initiate an operative consultation on the operation and the modification of the division as necessary. A failure to do so will result in accepting the division provided by the neighbouring network operator.

2.2. Nomination

2.2.1. General rules on nomination

a) The network user shall for each gas day specify, i.e. nominate the gas traffic planned for the given gas day on the Information Platform of the concerned system operator, excluding the distribution system operator.
b) The network user may use the transmission system in accordance with the confirmed nomination.
c) The nominated value must not exceed the capacity that can be nominated by the network user for the given network point and hour.
d) A nomination may be submitted for the given system by network users having a valid network usage contract.
e) The network user shall be liable for ensuring that the contents of its nominations submitted for the given network point to the neighbouring network operators of the given point are the same.
f) The system operator shall be entitled to reduce the availability of the network user's capacities to the previously published extent for maintenance, troubleshooting and interruption purposes. When defining the nomination, the network user shall take into consideration the nominatable capacity reduced as above, and shall also modify such nomination in accordance with the renomination rules pertaining to the system of the system operator.
g) If there has been a change in the nominatable capacity (e.g. as a result of secondary trade transaction, interruption, restriction is being imposed, customer migration or measures taken for the management of congestions defined in Regulation (EC) 715/2009) of the concerned network user after the submission of the nomination and over-nomination procedures are not permitted at the given network point, the system operator shall reduce the network user's nomination submitted for the concerned period to the extent of the nominatable capacity reduced as above. The system operator shall be obliged to notify the network user about the reduction. The network user may modify its nominations in accordance with the renomination rules applicable to the system of the system operator. If over-nomination procedure is permitted at the given transmission network point, paragraph 2.1.2.5 of the Code shall apply.
h) In order to execute paragraph f) and g), the system operator shall be entitled to reduce the submitted nominations to the extent of the nominatable capacity, which shall not result in the network user being entitled to a surcharge.
i) The network user may submit a zero nomination, which means that no system usage is requested for the gas day. Zero nomination shall mean that the daily natural gas transmission and storage task specified by the network user is zero. If the storage system operator nomination request is zero, the published load-down speeds shall be taken into account, or subsequent to zero nomination restart rules and load-up speeds shall be considered.
j) If no nomination is submitted for the given day by the network user to the system operator, the rules pertaining to zero nomination shall be applied for such gas day. In this case, in order to be able to allocate the actual volumes the system operator shall register zero values as nomination for the points booked by the network user, naming the network user as the shipper pair.
k) A nomination may be submitted no sooner than 60 days before the given gas day.
l) General rules of single-sided nomination:

i. At network points where the neighbouring network operators have mutually agreed on ensuring single-sided nomination service, network users may submit their nominations via single-sided nomination as well. The neighbouring network operators shall decide that in the single-sided nomination procedure who will be the active and who will be the passive system operator, and shall notify the network users about their decision.
ii. Network users using single-sided nomination service shall always submit the nominations only to the IT system of the active system operator. The network users shall decide that in the single-sided nomination procedure who will be the nominating active and who will be the non-nominating passive network user, and shall notify the system operators about their decision.
iii. The active system operator shall as soon as possible notify the passive system operator about the nomination submitted via single-sided nomination service with unchanged content. The passive system operator may refuse to accept the single-sided nomination if the passive network user has not authorized the passive system operator to accept the single-sided nomination, or if the passive network user submits a nomination for the passive system operator despite agreeing on pursuing a single-sided nomination procedure. In such cases, the nominations of the active and passive network users shall be managed as double sided nomination. The neighbouring network operators shall carry out the matching of single-sided nominations on the basis of the provisions of the interconnection agreement in force.

m) Detailed information on the details and conditions of using single-sided nomination service can be found in the business code of the system operator.

2.2.1.1. General rules on nomination at the transmission system

a) The gas volume to be specified during nomination and renomination shall be provided in gross calorific value-based kWh/day or kWh/hour, expressed on 25 °C/0 °C, for daily nomination and renomination, and kWh/hour for hourly nomination or renomination. If the gas volume is provided in kWh/day, the kWh/hour values established by the Information Platform shall be regarded as the delivery demand. The established volumes may be modified in accordance with the renomination rules.
b) In accordance with the business code of the system operator, the nomination of a given gas day may be specified per day or per hour, but the hourly nominated value of the given hour shall always be regarded as the delivery demand. The daily nominated value provided in kWh/day shall be divided by the number of hours (24/23/25) of the given day, and shall be rounded down to the nearest whole number. The remainder arising as a result of rounding shall be settled in the last hour, i.e. be rounded to the nearest whole number as defined by rounding rules.
c) If the Information Platform of the transmission system operator is available and working, nominations shall be submitted via the Information Platform. If the Information Platform is out of order, the network user may forward the nomination to the transmission system operator via e-mail or fax as well.
d) The smallest delivery task that can be determined from the short term standard products specified by the network user during the nomination in relation to a given

network point and offered at the TP by such network user must not define a delivery task with reverse direction of the physical flow.

e) If the network user has concluded more than one network usage contracts with the system operator in relation to the same network point on its own behalf, the network user shall submit an aggregated nomination for the concerned points.

f) The transmission system operator shall check the nominations for the following formal and content criteria, using the Information Platform:

   i. does the nomination include all the content items listed in paragraph 2.2.1.6.1 of the Code;
   ii. and the terms and conditions specified in the present chapter for the nominated volume?

g) If the nomination complies with the formal and content requirements, it shall be accepted by the transmission system operator.

h) If the nomination fails to comply with either the formal or the content requirements, the transmission system operator shall not accept the nomination. If the network user had a valid submitted nomination for the given gas day, the transmission system operator shall consider the last validly submitted nomination as valid. If the network user did not have a valid nomination for the given gas day submitted previously, it shall be deemed as zero nomination.

i) If the party having the transferring, receiving ID specified in the nomination and the relevant network user of the neighbouring network operator are different, i.e. the transfer of the natural gas right of disposal at the given network point involves more than one parties, the network user shall ensure that its partners register the relevant title transfer transactions and the whole transferring-receiving chain on the Information Platform in order to ensure that the neighbouring network operators can inspect the nomination. Network users using the title transfer service on the transmission system operator’s system shall be obliged to conclude a network usage contract with the transmission system operator including the terms and conditions of using the Information Platform and those relating to title transfer service.

j) The operator of the organised natural gas market and the Central Counterparty providing service for the organised natural gas market shall be liable for sending the network user’s positions necessary for performing all transactions concluded on the organised natural gas market to the transmission system operator via server-to-server connection.

k) The Central Counterparty shall always provide the transaction notification with reference to the network point specified as place of performance in the transaction.

l) The original delivery task related to a specific network point and applicable to the Central Counterparty from the transaction notification issued by the Central Counterparty and including the delivery tasks of two or more market players shall always be zero.

m) The network user involved in the transaction concluded on the organised natural gas market and the TP shall be obliged to carry out nomination for the entry and exit points in accordance with the general rules on nomination.

n) If an organised natural gas market member does not have a transaction for a given gas day, the organised natural gas market licensee or the Central Counterparty acting on

behalf of such licensee shall not forward a transaction notification to the Information Platform in relation to the given organised natural gas market member.

o) Two business days before starting the deliveries planned at the border crossing (interconnection) point, the concerned network user shall - via the 'Natural Gas Trader Registration' form published at the website of the transmission system operator - notify the transmission system operator about its new network user counterparty. The concerned delivery may only be started if the neighbouring network operator of the given border crossing (interconnection) point has confirmed the network user counterparty indicated on the 'Natural Gas Trader Registration' form.

p) The transaction notifications registered at the Information Platform on the basis of transactions concluded on the organised natural gas market cannot be modified or revoked by the network user during the renomination procedure.

q) Capacity usage of the network user shall mean that the network user uses its firm capacities at the given network point in the following order:

i. annual bundled firm capacity;
ii. annual unbundled firm capacity;
iii. quarterly bundled firm capacity;
iv. quarterly unbundled firm capacity;
v. monthly bundled firm capacity;
vi. monthly unbundled firm capacity;
vii. daily bundled firm capacity;
viii. daily unbundled firm capacity,
ix. within-day bundled firm capacity;
x. within-day unbundled firm capacity;

2.2.1.1.1. Terms and conditions of rejecting nominations

a) The transmission system operator may, when carrying out the inspection at the end of the nomination deadline, reject the nomination in the following cases:

i. the nomination fails to comply with the general nomination rules specified in paragraph 2.2.1.1 of the Code and applicable to the transmission system, or with the content requirements specified in paragraph 2.2.1.6 of the Code;
ii. the capacities of the interconnected natural gas system have decreased as a result of announced maintenance, malfunction or technical failure not yet to be regarded as malfunction;
iii. the transmission system operator ordered an interruption at a specific network point, which affects the given nomination;
iv. the submitted nomination would exceed the nominatable capacity of the network user in the given period;
v. the network user submitting the nomination has been restricted in accordance with chapter 4.3 of the Code;
vi. based on the neighbouring network operator's warning stating that the natural gas delivery tasks cannot be performed at its system;
vii. the network user's access to the transmission system has been suspended;
viii. in case of single-sided nominations, the passive system operator inspects the nomination rights.

b) If the nomination is rejected, the network user's access to the transmission system shall be suspended.

2.2.1.2. Rights and obligations of the network user at the entry points of the transmission system

a) The network user shall ensure that the neighbouring network operator every gas day injects and certifies at the entry point of the transmission system the volume intended to be injected according to the network user's nomination confirmed for the given gas day and the natural gas volume defined by the short term standardized products used by the transmission system operator, in accordance with the schedule accepted by the transmission system operator and in the quality and at the pressure specified in the network usage contract.
b) The certificate to be issued by the system operator for the network user and to be simultaneously forwarded to the concerned neighbouring network operator shall cover the quality and quantity characteristics of the delivered natural gas.

2.2.1.3. Rights and obligations of the network user at the exit points of the transmission system

a) The network user shall every day take off from the transmission system at the exit point of the transmission system the volume intended to be taken off and indicated in the confirmed nomination submitted for the given gas day, and also the natural gas volume defined by the short term standardized products used by the transmission system operator.
b) If, for reasons which cannot be attributable to the transmission system operator, the network user fails to receive or only partly receives the volume specified in paragraph a) and fails to ensure that such volume is transmitted further, the transmission system operator shall not be liable for any damage resulting therefrom.

2.2.1.4. Rights and obligations of the transmission system operator at the entry-exit points of the transmission system

a) The transmission system operator shall at the exit point of the transmission system deliver to the network user the natural gas volume specified in its nomination confirmed for the given gas day and also the natural gas volume defined by the short term standardized products used by the transmission system operator.
b) If the transmission system operator fails to deliver the available and confirmed source volumes nominated by the network user for reasons attributable to the transmission system operator while the off take of the network user complies with the nomination, the network user shall be entitled to charge a transmission operator's nomination imbalance surcharge defined in the Price Application Decree against the transmission system operator in relation to the difference between the nominated and delivered performance. In such cases the network user does not have to pay the nomination imbalance surcharge charged by the transmission system operator or the surcharges, extra costs associated with balancing gas. The network user may, in addition to the surcharge, pursue its claims in accordance with the rules of compensation for damages of the Civil Code.

c) If the transmission system operator fails, for reasons attributable to it, to receive the available source confirmed to the network user and the natural gas volume defined by the short term standardized products used by the transmission system operator while the off take of the network user complies with the nomination, the network user does not, in relation to the imbalance between the nominated and delivered performance, have to pay the nomination imbalance surcharge charged by the transmission system operator or the surcharges, extra costs associated with balancing gas. If further damages are incurred at the network user or a third party in relation to the abovementioned, the network user may, in addition to the surcharge, pursue its claims in accordance with the rules of compensation for damages of the Civil Code.
d) The transmission system operator shall without delay notify the concerned network users about any force majeure situations arising at the system of another transmission system operator connecting to the transmission system operator's system. If the nominations submitted by the network users cannot be performed as a result of such force majeure event, the transmission system operator shall bear no liability whatsoever.

2.2.1.5. General rules on nomination at the storage system

a) The time schedule and structure of the storage system nomination process reflects the transmission system nomination process defined in the Code, i.e. an hour-based network user-network user partner (=storage user/shipper-pair) system is used, and a before-gas day nomination and renomination, and a within-gas day renomination schedule defined for the transmission system is followed.
b) During nomination and renomination the gas volume shall be provided in gross calorific value-based kWh/day or kWh/hour expressed on 25 °C/0 °C, in accordance with the business code of the storage system operator licensee. If the gas volume is provided in kWh/day, the hourly values established on the Information Platform pursuant to the rules stated in the business code of the storage system operator licensee shall be deemed as hourly storage tasks.
c) The number of nomination amendments within the same nomination window is unlimited.
d) The storage system operator licensee shall validate the nominations based on the general and content requirements specified in the Code, the contractual terms and conditions and other conditions stipulated in the business code of the storage system operator licensee. Inappropriate nominations may be rejected.
e) The storage system operator licensee may require the nominations of the network user counterparties to be listed by capacity and/or product types, or in one amount. The preferred option shall be stated in the business code of the storage system operator licensee.
f) The storage system operator licensee shall be entitled to accept the submitted nominations at different values. Rules of determining the received values are stated in the business code of the licensee. The received value may be determined directly after the arrival of the nomination or after closing the concerned nomination window. The preferred option is specified in the licensee's business code.
g) The network user shall state the nominations submitted to the storage system operator licensee also on the neighbouring transmission system operator's Information Platform,

unless the neighbouring network operators permit single-sided nomination in their interconnection agreement.

h) Nominations accepted by the storage system operator licensee shall, in accordance with the time schedule set by the licensee, be sent to the neighbouring transmission system operator's Information Platform by the storage system operator licensee for matching. If the licensees conclude a single-sided nomination agreement, paragraph 2.2.1.1.1 of the Code shall apply. Rules on matching are defined in paragraph 2.2.4 of the Code.

i) The storage system operator licensee shall notify the concerned network user about the accepted nominations and the modifications thereof no later than 10 minutes after the closure of the concerned nomination window.

j) In order to protect the geological and reservoir mechanical fitness and also the drills of the underground gas storages, the storage system operator licensee shall be entitled to control the extent of fluctuations in hourly traffic on the level of both the nominations and the physical gas distribution. The storage system operator licensee shall publish the restriction rules on nominations in its business code, while the rules on physical gas distribution shall be stipulated in the interconnection agreement concluded with the transmission system operator.

k) If a storage system operator licensee operates more than one underground storages, the licensee shall be entitled to manage the capacities of the underground storages operated by it as a Unified Underground Storage in a merged form, and shall be entitled to request the network users to submit their nominations to the Unified Underground Storage zero point (see also paragraph 2.1.9 of the Code).

l) For injection or withdrawal capacities provided and/or contracted at daily value, the hourly peak capacity is the 1/24th of such capacities, i.e. this is the maximum amount that can be nominated as hourly nomination, except for the 23 and 25 hour gas days associated with switching to winter and summer time, when hourly peak capacities equal to 1/23rd and 1/25th of the daily values.

m) The storage system operator licensee may provide an opportunity for over-nomination, as defined by the rules set out in its business code.

n) Information flow required by the nomination process is provided via the Information Platform of the storage system operator licensee to the transmission system operator as well as to the network users. Should the Information Platforms and/or communication networks involved in the communication failure, e-mail, fax or phone will be used for communication.

o) Time intervals set out in the present Code in relation to task performance shall apply if the concerned Information Platforms and communication systems function properly and information exchange is based on machine-to-machine connection. In case of system failure, time intervals and deadlines related to using alternative connection and data processing methods shall be defined by the interconnected parties through operative consultations.

2.2.1.5.1. Terms and conditions of rejecting nomination at the storage system

The storage system operator licensee may reject the nomination in the following cases:

i. the nomination does not comply with the general and content requirements specified in the present Code
ii. the capacities of the storage system have decreased as a result of a malfunction;
iii. the nominating network user has fully or partially been restricted by the designated transmission system operator;
iv. the nomination cannot be performed because of the smallest or largest injection or withdrawal volume published for the underground storage;
v. the safe and continuous operation of the underground storages cannot be ensured because the imbalance between the hourly values given during nomination or renomination is too big and/or the values change too frequently.

2.2.1.6. Content requirements of nomination

2.2.1.6.1. Content requirements of nomination at the transmission system

Content items of nominations submitted by the network user for the transmission system:

i. network point ID: specifying the network point at which the network user injects gas to or takes off gas from the transmission system;
ii. Gas flow direction at the specified network point, i.e. injection to or off-take from the transmission system
iii. hourly amount (kWh/hour): the desired heat to be delivered at the specified network point at each hour on the relevant gas day;
iv. ID of the receiving /transferring customer: ID of the party receiving natural gas from or transferring natural gas to the network user at the relevant network point;

2.2.1.6.2. Content requirements of nomination at the storage system

Nominations submitted to the storage system operator licensee shall include the following:

i. Data used for identifying the network user
ii. IDs of the network point
iii. The gas day for which the nomination is submitted
iv. The requested direction of gas flow at the specified network point, i.e. injection to or withdrawal from the underground storage
v. Hourly gas volume (kWh/hour) or daily gas volume (kWh/day) as specified by the business code of the storage system operator licensee
vi. ID of the receiving/transferring customer: ID of the party receiving natural gas from or transferring natural gas to the network user at the relevant storage point

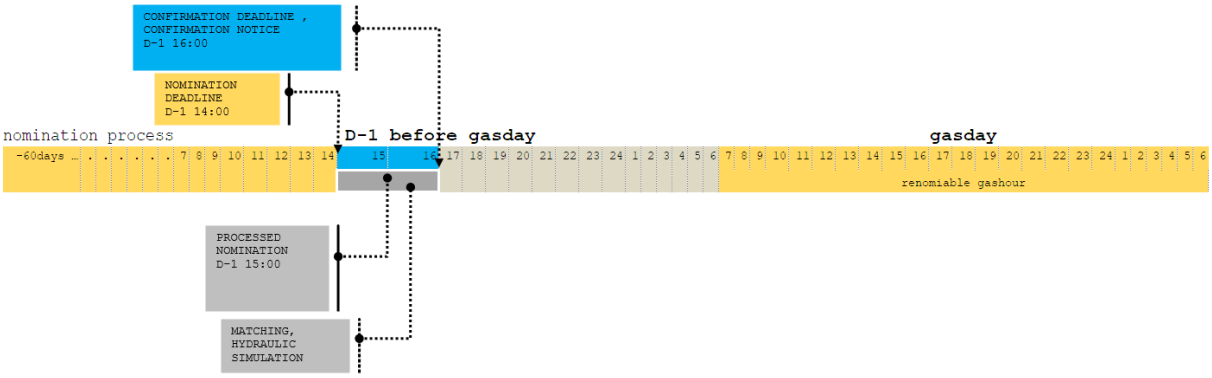
IDs of the network user, the network point and the transferring/receiving party shall be provided in accordance with the code system (EIC codes) required and published by the transmission system operator

The storage system operator licensee shall be entitled to establish further content items in its business code.

2.2.2. Nomination process

2.2.2.1. Nomination process at the transmission system

a) Network users must submit their nominations for the gas day by the end of the nomination deadline, i.e. until 2.00 p.m. on the calendar day preceding the gas day on the Information Platform of the transmission system operator.
b) If the network user's nomination fails to comply with the general rules on nomination and the content requirements, the transmission system operator shall reject such nomination.
c) The transmission system operator shall use the last valid nomination submitted before the end of the nomination deadline by the network user and shall consider such nomination as delivery demand.
d) Timing of daily nomination:



2.2.2.1.1. Managing nominations over firm capacities at the transmission system

a) The network user's nomination over its firm capacities shall mean that the network user uses its capacities available at the given network point in the following order, i.e. the order of time stamps is as follows:

i. annual bundled interruptible capacity;
ii. annual unbundled interruptible capacity;
iii. quarterly bundled interruptible capacity;
iv. quarterly unbundled interruptible capacity;
v. monthly bundled interruptible capacity;
vi. monthly unbundled interruptible capacity;
vii. interruptible capacity established by the congestion management procedure specified in paragraph 2.1.5.1.4 of the Code;
viii. daily bundled interruptible capacity;
ix. daily unbundled interruptible capacity.

b) Should the total of the nominations exceed – as a result of the provisions of Commission Regulation (EU) 2017/459[18] – the gas volume that can be performed at a certain network point, interruptions shall be performed in the order of the capacity booking time stamps. In case of an interruption, capacity booking time stamps coming into force earlier shall prevail over those coming into force later.
c) If, after applying the procedure described in paragraph b), two or more nominations are ranked at the same position within the interruption order and the transmission system operator does not interrupt the total amount, interruptions shall be performed in proportion to the nominations on interruptible capacity.
d) When confirming the nomination, the transmission system operator shall notify the concerned network users about the expected interruption and shall define:

   i. the place of interruption;
   ii. the interrupted gas hour;
   iii. the volume that can be performed in relation to a specific shipper pair (kWh/hour) in the gas hour subject to the interruption.

e) The notification of expected interruption is for informative purposes and cannot be interpreted as interruption.
f) At exit points where more than one network users have capacity bookings, when establishing the interruption failure, the hourly measurements of the consumers supplied by the network users shall also be considered when determining the utilisation of the actual hourly capacity of a given network user in each hour. The concerned neighbouring network operator shall be obliged to provide to the transmission system operator the aggregate hourly measurement data applicable to the consumers of the network users.
g) The transmission system operator shall be entitled to monitor the performance of the interruption.
h) The transmission system operator shall, in addition to the monthly settlement, prepare a statement and protocol about the interrupted capacities to the network users after the gas month. The transmission system operator shall pay a compensation specified in the relevant paragraph of the Tariff Decree to the network users for the capacities subject to interruption.
i) If subsequent fee discount is applied, the compensation payable by the transmission system operator at the entry and exit points shall be based on the maximum hourly value (kWh/hour) of the interruption applicable to the given capacity product.

2.2.2.2. Nomination process at the storage system

2.2.2.2.1. General rules on nomination at the storage system

a) Network users shall submit the nominations for the gas day until 2.00 p.m. on the calendar day preceding the gas day on the Information Platform of the storage system operator licensee. The storage system operator licensee shall confirm the nomination in accordance with its business code.

[18] Articles 35 and 36

b) When validating the nomination, the storage system operator licensee shall verify whether the submitted nomination complies with:

   i. the provisions of the Code on general and formal requirements
   ii. the contracted capacities,
   iii. the capacities available to the network user on the given gas day.
   iv. the terms and conditions of modifying nominated values specified in its business code,
   v. other contractual data

c) The storage system operator licensee shall be entitled to reject (see also paragraph 2.2.1.5.1 of the Code) or accept at a modified value such nominations that fail to comply with the requirements specified in paragraph b).
d) The storage system operator licensee shall establish the received value of each nomination. If nominations are submitted for the underground storage points as one value, the licensee shall, when establishing the received value, also divide the nominations among capacity types and/or products. The licensee shall establish the received value and divide the nominations in accordance with the rules set out in its business code.
e) The storage system operator licensee shall accept and divide the nominations no later than 5 minutes after the given nomination window has been closed, and shall notify the network users about such established accepted nominations within 10 minutes.
f) After the nomination window has been closed, the storage system operator licensee shall, within a time interval agreed on with the transmission system operator, forward the accepted nominations to the transmission system operator, and the transmission system operator shall carry out a matching in accordance with the relevant chapter of the Code.
g) The transmission system operator shall return the result of the matching within the deadline specified in the Code to the storage system operator licensee, and the storage system operator licensee shall hence consider such values as accepted nominations. If the accepted nominations are modified, the storage system operator licensee shall notify the concerned network user with 10 minutes from such modification.
h) The storage system operator licensee shall allocate the accepted nominations relating to Unified Underground Storages to the connection points of the neighbouring transmission systems, and shall forward such allocation to the transmission system operator.
i) Rules on the nomination level modifications allowed between gas days and gas hours, i.e. the rules on using underground storage flexibility opportunities are included in the business code of the storage system operator licensee.

2.2.2.2.2. Nomination for firm capacities at the storage system

The nomination corresponds to the general process, with the following additions:

   i. When receiving the nomination, receiving demands for firm capacities shall have priority over the other capacity types.

ii. If the capacity decreases because the filling level of underground storage has changed, the storage system operator licensee shall, depending on the infrastructure of its nomination system, be entitled to restrict the contracted firm capacities in proportion to the bookings to the level of the available physical capacities already in the remaining hours of the gas day of from the next gas day.

iii. If the aggregate physical capacity of the storage system operator licensee's underground storages falls below the aggregate level of contracted firm capacities because the filling level of underground storage has changed (breakdown curve), the storage system operator licensee shall be entitled to cut the already accepted nominations to a level that can be performed. Nominations shall be cut in proportion to the capacity decrease in order to avoid discrimination. That means that first, nominations accepted on interruptible capacities are entirely interrupted, then firm nominations as necessary and finally virtual nominations as necessary are also interrupted. Detailed rules on cutting are laid down in the storage system operator licensee's business code.

2.2.2.2.3. Nomination for interruptible capacities at the storage system

The nomination corresponds to the general process, with the following additions:

i. The storage system operator licensee shall be entitled to define in its business code several interruptible capacities fitting its product structure, and shall also lay down the order of interruption for such capacity types in its business code. Interruptions applied within the same capacity type shall be non-discriminative and shall be based on a nomination-based pro rata principle.

ii. Nominations for interruptible capacities may be carried out in one amount via the nomination procedure for firm capacities, or separately for the different capacity types. The preferred option shall be stated in the business code of the storage system operator licensee.

iii. The storage system operator licensee may constantly modify or interrupt the received value of nominations submitted for interruptible capacities both before and during the gas day depending on the incoming nominations and the technical facilities, and in accordance with the provisions of the storage system operator licensee's business code.

2.2.2.2.4. Over-nomination at the storage system

a) The purpose of over-nomination is to gain access to the available but interruptible capacities not covered by the nominations for firm capacities.

b) The total nomination of a network user submitted for a given gas day must not exceed the total available withdrawal or injection capacities of the underground gas storages supplying the given network point on the given gas day. However, the total nomination of network users may exceed the maximum physical withdrawal or injection capacity applicable on the given gas day at the given network point, as each network user may submit its demand for available interruptible capacities in equal measure.

c) In case of before-gas day and within-gas day over-nominations, the storage system operator licensee shall allocate and confirm the nominations on the basis of the pro rata principle, i.e. in proportion to the nominations submitted for interruptible capacities.
d) The storage system operator licensee shall use the order specified in its contracts and business code when carrying out interruptions.
e) In case of within-gas day renomination, the storage system operator licensee may decide to apply the rules on division specified in paragraph c) either only for the first renomination hour closed concurrently with the currently closed nomination window, or for the whole remaining gas day. The chosen option shall be stated in the business code of the storage system operator licensee.

2.2.2.2.5. Nomination rules of virtual storage service

a) The network user has the opportunity to submit nominations in the reverse direction of the current physical flow of the unified or individual underground storages made available by the storage system operator licensee for virtual nomination.
b) The storage system operator licensee shall be entitled to cut the submitted virtual nominations and accept or reject such cut nominations in order to protect the technological system of the underground storage.
c) The storage system operator licensee shall validate the demands submitted for virtual services either individually upon their arrival, or in batches, when the nomination window is closed. The preferred option is specified in its business code.
d) The licensee shall accept nominations validated individually either at the same value or partially or fully restricted. The applicable rules are stated in the business code of the storage system operator licensee.
e) If nominations are validated in batches, the storage system operator licensee shall divide the total virtual demand accepted based on the technological facilities and the accepted nominations corresponding to the current storage flow between those submitting nominations. When dividing such demands, pro rata division in proportion to the nomination shall be applied as the basic principle. Priority order of the products and other detailed rules are stated in the business code of the storage system operator licensee. Division rules shall be non-discriminative.
f) Should the virtual capacities available during the gas day decrease, pro rata cutting in proportion to the nomination shall be applied as basic principle when cutting the already accepted nominations. Interruption order of the products and other detailed rules are stated in the business code of the storage system operator licensee. Cutting rules shall be non-discriminative.

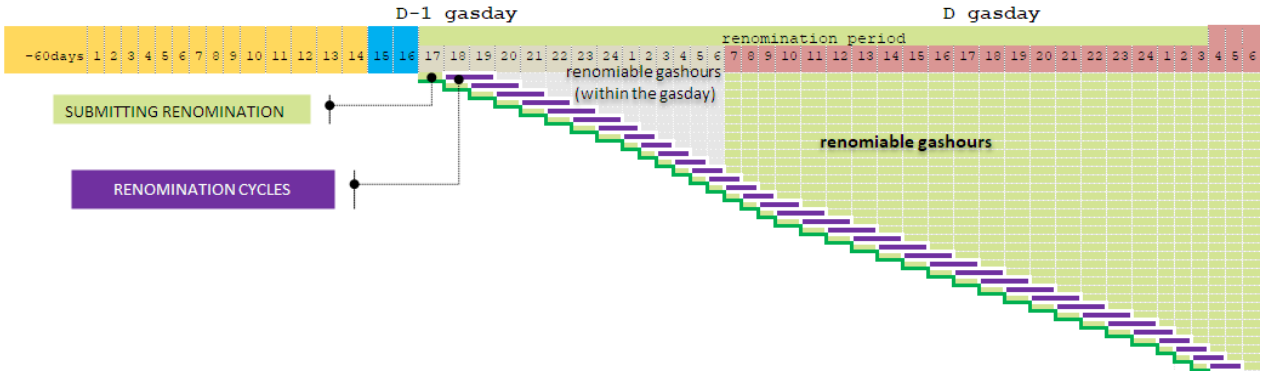
2.2.2.2.6. Weekly forecast at the storage system

a) Network users shall provide the storage system operator licensee with a forecast of their planned injections/withdrawals for each day (kWh/day) until 12.00 p.m. on Thursday each week in relation to the period staring at 6.00 a.m. on the next Monday and ending at 6.00 a.m. on the Monday after that.
b) The network user may modify the values provided as weekly forecast via a new forecast or during daily nomination.

2.2.3. Renomination

2.2.3.1. Renomination at the transmission system

a) Network users shall be entitled to submit a renomination for a given gas day on the Information Platform of the transmission system operator during the renomination period staring at 4.00 p.m. on the calendar day preceding the gas day and ending 3 hours before the end of the gas day, i.e. at 3.00 a.m.
b) If a renomination for a given gas day is submitted before the start of the gas day until 04.00 a.m., each hour of the gas day may be modified. If a renomination is submitted after the above deadline, the modification of the delivery data shall come into effect only from the second hour following the full hour after the submission.
c) The transmission system operator shall start a processing procedure (renomination cycle) at the start of every hour during the re-nomination period, when it processes the renominations submitted by the network users before the launch of the cycle and carries out the hydraulic analyses, the tasks arising from the congestion management procedure specified in paragraph 2.1.5.1.3 of the Code, capacity allocation on the basis of the over-nomination procedure, the interruption, and the matching complying with the procedure detailed in paragraph 2.2.4 of the Code.
d) The transmission system operator shall, during the renomination cycle, take into account the last renomination received from the network user before the start of the renomination cycle and shall consider such renomination as delivery demand to be processed.
e) The transmission system operator shall, during each renomination cycle and no later than within two hours from the start of the cycle, process the delivery demands and send the notification on the confirmed volumes to the concerned network users.
f) When submitting the renomination, the network users shall take into consideration the general rules on nomination applicable at the transmission system and detailed in paragraph 2.2.1.1 of the Code, and also the content requirements specified in paragraph 2.2.1.6.1 of the Code.
g) If the renomination fails to comply with the rules and requirements specified in the abovementioned paragraphs, the transmission system operator shall reject such renomination. Should a renomination be rejected, the transmission system operator shall consider the last confirmed nominated or renominated natural gas volume of the given day as valid.
h) The transmission system operator shall consider the last confirmed nominated or renominated natural gas volume of the given day as delivery task and carries out the day-to-day management in order to fulfil such task.
i) Timing of renomination:



j) By renomination the network users may reduce/increase the gas volume intended to be delivered/taken over at the entry/exit points under their nominations submitted and confirmed earlier.

2.2.3.2. Renomination at the storage system

a) The storage system operator licensee shall follow the same renomination schedule as the transmission system operator, which is detailed in paragraph 2.2.3.1 of the Code, in relation to those tasks that are applicable also for the licensee.
b) The terms and conditions of using underground storage within-gas day flexibility (tolerance range and terms and conditions of modifying other nominated values) and the detailed methodology of specifying the available technical capacity shall be included in the currently effective business code of the storage system operator licensee.
c) Within-gas day renominations shall not exceed the tolerance range determined in accordance with the business code of the storage system operator licensee and the thresholds defined by other terms and conditions of modifying nominated values.
d) In other respects, the tasks to be carried out and rules to be applied during renomination correspond to those specified in the paragraphs detailing the rules on underground storage nomination.

2.2.4. Matching

2.2.4.1. Matching between neighbouring network operators

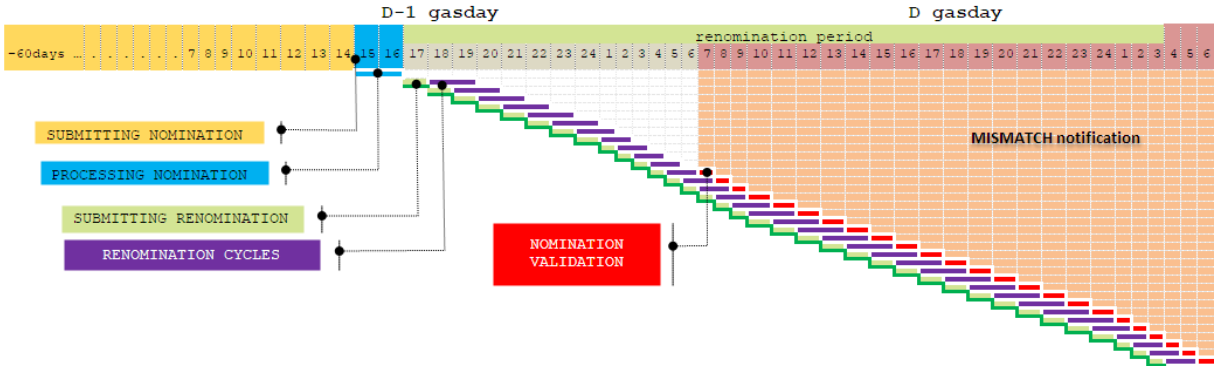
a) The system operator shall be obliged to carry out a matching.
b) The transmission system operator shall process the submitted nominations between 2.00 p.m. and 4.00 p.m. on the calendar day preceding the gas day and shall carry out the hydraulic analyses, the tasks and interruptions arising as a result of the congestion management procedure specified in paragraph 2.1.5.1.4 of the Code.
c) Based on the results of the matching, the transmission system operator shall send the notification on the confirmed volumes until 4.00 p.m. on the calendar day preceding the gas day to the concerned network user in relation to the nominations submitted until 2.00 p.m. according to paragraph 2.2.3.1 a) of the Code, and shall prepare a preliminary delivery plan to manage the gas day traffic.

2.2.4.2. Matching between domestic network operators

a) The neighbouring network operator receiving the nomination – except for the distribution system operator – shall be obliged to upload the nominations accepted and processed at its own system to the Information Platform of the transmission system operator no later than within 30 minutes from the end of the nomination deadline, i.e. until 2.30 p.m. on the calendar day preceding the gas day, while renominations shall be uploaded to such Platform within 30 minutes from the start of each renomination cycle, which uploaded nominations and renominations shall be expressed in Implementation Decree-specified gross calorific value of 25/0 °C reference temperature-based energy (kWh/hour).
b) The matching shall be carried out by the transmission system operator in relation to the nominations using the most recently uploaded data within 60 minutes from the end of the nomination deadline, i.e. until 3.00 p.m. on the calendar day preceding the gas day, while for renominations within 60 minutes from the start of the renomination cycle.
c) The data are compared each hour and the matching covers the network point, the direction thereof, the shipper pair relationship indicated in the nomination and the nominated value.
d) If, during the matching specified in paragraph 2.2.4.1 of the Code, the checked parameters cannot be clearly matched (except for the nominated value), then such nomination rows shall be deleted from the system of both system operators.
e) If, during the matching specified in paragraph 2.2.4.1 of the Code, the checked parameters can be clearly matched but there is a mismatch associated with the nominated natural gas volume, the concerned system operators shall previously agree on using one of the below three methods.

    i. ‘Smaller principle’ - the concerned system operator shall validate the smaller value in the network user’s nomination in accordance with the rules set out in paragraph f), except for distribution system operators.
    ii. Priority of transmission system operator - the neighbouring network operator shall validate in the network user’s nomination the nomination submitted most recently to the transmission system operator, in accordance with the rules set out in paragraph f).
    iii. Priority of neighbouring network operator - the transmission system operator shall validate in the network user’s nomination the nomination most recently sent by the neighbouring network operator, in accordance with the rules set out in paragraph f), except for distribution system operators.

f) When carrying out the validation because the methods specified in paragraph e) have been applied, the concerned system operator shall replace the network user’s nomination with the given value in relation to the third gas hour following the start of the renomination cycle, and shall also provide information on the next gas hours (mismatch). The concerned parties shall consider the modified nomination as the delivery task that has to be performed.
g) Validation process:



h) If, for any reason, the principle is not specified in the interconnection agreement concluded between the system operators, the 'Smaller principle' shall be applied by default.

i) The system operators shall notify the concerned network users about the matching method used by the system operators and the possible modification thereof.

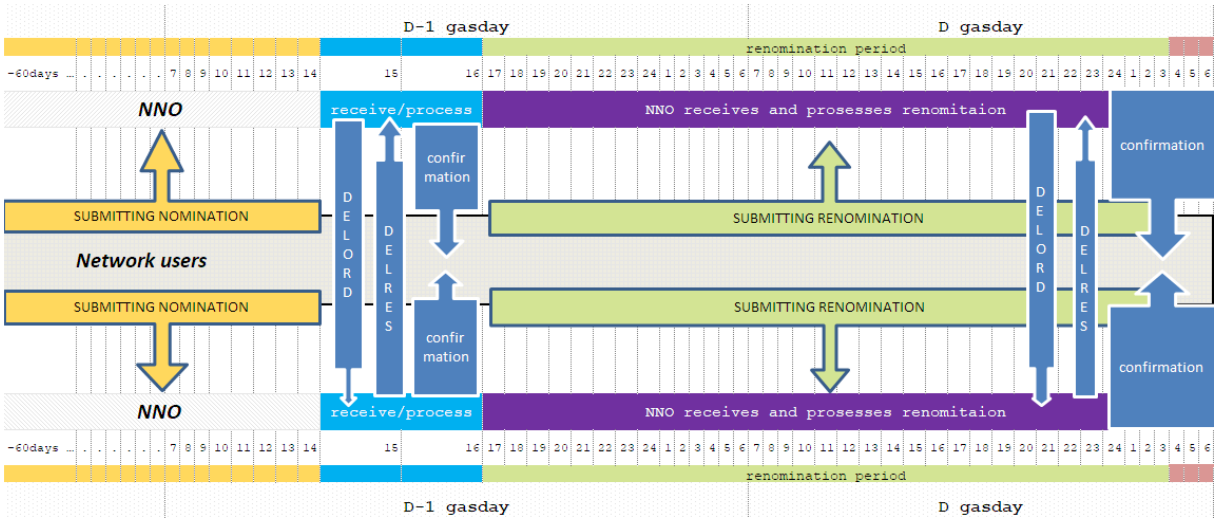
j) The transmission system operator shall notify the concerned network users and system operators about the result of the matching until 4.00 p.m. on the calendar day preceding the gas day in the notification on confirmed volumes.

k) The transmission system operator shall notify the concerned network users and system operators about the result of the matching of renominated values in the notification on confirmed volumes at the end of each renomination cycle.

l) The network user shall be entitled to submit a renomination in relation to the confirmed volumes, complying with the renomination rules applicable at the system of the concerned system operator.

m) If a system operator fails to or insufficiently carries out the matching, and as a result of such failure damage is incurred by a network user, including damages resulting from non-performed delivery tasks or any surcharges payable by the concerned network user, the neighbouring network operator failing to carry out the matching or carrying out such matching not in compliance with the provisions of the Code shall be liable for all kinds of damages.

n) Timing of matching:



2.2.4.3. Matching between domestic and foreign transmission system operators

a) To ensure that clear delivery tasks can be established even if there are data anomalies between the nominations submitted to domestic transmission system operators and the related foreign transmission system operators, the concerned transmission system operators shall carry out matching in relation to the submitted nominations, in accordance with the interconnection agreement concluded by them.
b) The concerned transmission system operators shall validate the result of the matching, carried out in accordance with the interconnection agreement, in the network users' nominations and shall consider it as delivery task.
c) The domestic system operators shall be obliged to notify the concerned network users about the matching method specified in the interconnection agreement concluded by and between the transmission system operators and about the potential modification thereof.

2.2.5. Other special nomination rules

2.2.5.1. Rules on performing transaction notifications concluded at a physical network point

a) For transaction notification(s) created for injection on a given gas day at a given physical network point, the transferring Network User shall be obliged to nominate and physically inject the volume arising from the transactions' sum with the correct sign for the network point specified in the transaction, while for transmissions in the reverse direction of the physical flow it shall nominate and virtually exit such volume.
b) For transaction notification(s) created for delivery on a given gas day at a given physical network point, the receiving Network User shall be obliged to nominate and physically exit the volume arising from the transactions' sum with the correct sign for the network point specified in the transaction, while for transmissions in the reverse direction of the physical flow it shall nominate and virtually inject such volume.
c) Network users violating such rule shall be obliged to pay a nomination imbalance surcharge to the extent of the non-performance. The level of such surcharge shall be regulated by the Price Application Decree.
d) Determining the extent of non-performance:

    i. The difference between the transaction notification's sum with the correct sign, created for injection on a given gas day at a given physical network point, and the allocated injected volume.
    ii. The difference between the transaction notification's sum with the correct sign, created for delivery on a given gas day at a given physical network point and the allocated exited quantity.

2.2.5.2. Management of nominations if a technical failure occurs at the transmission system

a) Should the transmission capacity of a network point decrease due to a technical failure not yet to be regarded as malfunction, the transmission system operator may reduce the concerned network users' nominatable capacity in relation to the given network

point for the expected period and to the extent of the transmission capacity, and may reject the already submitted nominations. The transmission system operator's liability for damages shall be governed by its business code. Terms and conditions of the payment of transmission operator's nomination imbalance surcharge is detailed in the related paragraph[19] of the Price Application Decree.

b) The reduction of nominatable capacity shall be carried out in accordance with the order of capacity usage, while for capacities ranked at the same position in proportion to the capacity amount.
c) The transmission system operator shall notify the concerned network users about the reduction of nominatable capacities and the rejection of the nomination via e-mail and fax.
d) The notification shall include:

   i. the name of the concerned network point;
   ii. the amount of the reduced nominatable capacity;
   iii. the start date and the expected end date of the decrease;
   iv. has the nomination been rejected, if yes, the time period and extent of such rejection.

e) If normal operation is restored, the transmission system operator shall notify the concerned network users via e-mail and fax.

2.2.5.3. Rules on nomination if off-spec natural gas is injected

a) If the quality of the natural gas injected to the transmission system fails to comply with the requirements stipulated in the Implementation Decree[20] and – in case of export or cross-border delivery – with the quality parameters set out in the valid interconnection agreement concluded by and between the transmission system operator and the concerned neighbouring network operator, the transmission system operator shall be obliged to notify the concerned network users and the neighbouring producer without delay in writing about the fact that off-spec natural gas has been injected. Should the network user wish to modify its nomination based on the notification, it shall be entitled to do so, in compliance with the rules on renomination.
b) If the network user fails to reduce the injection of off-spec natural gas during its renomination to such an extent that would mean that the injection of off-spec natural gas injected to the transmission system by such network user is terminated for the remaining hours of the gas day, than this shall mean that the intention to inject is still maintained. In such cases the network user and the injecting neighbouring network operator shall be liable for any and all damages caused by injecting off-spec natural gas.
c) During the matching carried out in the renomination cycle following the renomination, the transmission system operator shall state that the network user is freed for the remaining hours of the gas day by the nomination reduced as set out in the above paragraph, provided that the same decision has been made for the injecting neighbouring network operator as well. If the injecting neighbouring network operator

[19] Section 18
[20] Annex 11

still fails to terminate the injection of off-spec natural gas, the network user may, in addition to the surcharge, pursue its claims in accordance with the rules on compensation for damages of the Civil Code. The neighbouring network operator shall be liable for any and all damages caused by injecting off-spec natural gas.

2.2.5.4. Rules on nomination if transmission loss or measurement difference happens

The natural gas distribution system lost and unaccounted for-gas shall be nominated separately at separate 'network user-network user counterparty' rows - where the shipper pair is always a distribution system network user or the distribution system operator itself, both having a technical SHP code (with 'lost and unaccounted for-gas' label).

2.2.5.5. Rules on nomination if additional natural gas is injected

a) If the network user injects more gas to the transmission system at an entry point not controllable by the transmission system operator than the gas volume specified in the given day's confirmed nomination and defined by the short term standardized products used by the transmission system operator, and taking over such injection does not result in technical problems on the transmission system, the transmission system operator may take over the additional gas volume.
b) If the network users' injection to the transmission system at a not controllable entry point exceeds 1/24th of the daily gas volume specified in their confirmed nomination of the given gas day by at least 5% in two consecutive hours, the transmission system operator shall be obliged to notify the concerned network users and the neighbouring network operator about such fact.
c) If the gas volume injected to the transmission system by the network users exceeds the time period and limit values defined in the previous paragraph, the concerned network user may, following the notification, consider the takeover of the natural gas or take measures with the neighbouring network operator in order to terminate the additional injection. If the additional natural gas is taken over, the network user may modify its nomination in accordance with the rules on renomination.

2.3. Maintaining balance

2.3.1. General rules on maintaining commercial balance

a) The network user shall be liable for maintaining its own commercial balance within the gas day.
b) The network user shall be obliged to make sure that the total of its injections and the total of its off-takes are in balance.

i. Total of injections shall mean: the sum with the correct sign of volumes injected to the transmission system by the network user at the entry points on the given gas day and of the volumes taken over at the "Hungarian Virtual Trading Point (MGP)", expressed in kWh, including the volumes allocated against any and all nominations and transaction notifications.
ii. Total of off-takes shall mean: the sum with the correct sign of volumes taken off by the network user at the exit points on the given gas day and of the volume delivered at the "Hungarian Virtual Trading Point (MGP)", expressed in kWh,

including the volumes allocated against any and all nominations and transaction notifications.

c) The transmission system operator shall be obliged to make sure that the balancing service provided for the network user is non-discriminative.
d) The network user shall fully carry out the instructions of the system operator aimed at maintaining and restoring hydraulic balance.
e) The network user's transactions created on the TP, the organised natural gas market or elsewhere about which the transmission system operator received a transaction notification, and the thus allocated injections and off-takes shall also be taken into consideration when determining the commercial balance.
f) The transmission system operator ensures the balancing of imbalances only up to the extent of its available balancing tools, using in particular the short term standard products traded on the TP based on the merit order specified in the provisions of Regulation (EU) No 312/2014.
g) The network user may restore its commercial balance using the short term standard products traded on the TP and defined in the TP Code and Market Rules.

2.3.2. General rules and the process of hydraulic balancing

2.3.2.1. General rules on hydraulic balancing

a) Purpose of balancing:

   i. to ensure the safe and effective operation of the natural gas network;
   ii. to meet the natural gas transmission and natural gas distribution needs of the network users while making optimum use of the interconnected natural gas system.

b) Hydraulic balancing shall mean that the system operator ensures the daily balance of natural gas injections to and off-takes from the transmission system.
c) Each system operator shall be responsible for the hydraulic balance of its own system and shall also continuously monitor it.
d) The transmission system operator obliged to maintain balance shall be liable for coordinating the maintenance of within-gas day balance at the interconnected natural gas system.
e) The transmission system operator obliged to maintain balance must provide for the start of the next gas day and publish on its website the linepack level necessary for performing its delivery tasks, shall give an hourly updated forecast on the natural gas volume available at the end of the gas day and shall hourly display the current level of the natural gas volume as approved by the Authority.

2.3.2.2. Hydraulic balancing at the transmission system

a) The transmission system operator shall consider as delivery task the natural gas volume stated in the last confirmation notification, and, on this basis, shall prepare and modify as necessary during the gas day the natural gas transmission plan of the gas day. The transmission system operator shall, in accordance with the plan, give day-to-

day instructions necessary for performance and set the volume to be delivered at the entry and exit network points controlled by such operator.

b) The transmission system operator shall continuously monitor the physical balance of the transmission system by measuring the gas traffic of the entry-exit points of the transmission system and also of the transmission system, and shall also carry out the analyses necessary for examining the balance:

   i. analysis of balance between the gas source and gas consumption;
   ii. expected consumption on the subject day;
   iii. available sources (import, underground storages, domestic production);
   iv. information on nomination and allocation, measured gas flows;
   v. gas pressure measured in the whole transmission system.

c) Imbalance may occur in the following cases:

   i. off-takes of consumption points are less/more than the requested performance;
   ii. source outage/additional injection at entry points that cannot be controlled by the transmission system operator;
   iii. malfunction at the transmission system;
   iv. malfunction at the distribution system;
   v. malfunction at the storage system;
   vi. due to delivery demands a pressure and flow condition preventing the performance of the delivery task arises at the transmission system.

d) The transmission system operator may take balancing measures in order to:

   i. prevent and restore imbalance;
   ii. comply with the operational limits of the transmission system;
   iii. reach an end-of-day linepack level that differs from the level forecasted for the given gas day based on the expected injections and off-takes but contributes to the effective and economic operation of the transmission system.

e) The transmission system operator may use the following tools to restore system balance:

   i. short term standard products offered on the TP, specified in the TP Code and Market Rules and available under the merit order defined in Regulation (EU) No 312/2014;
   ii. restriction.

f) Restrictions may be imposed only if the system balance cannot be restored with the other balancing tools.

g) The transmission system operator shall decide independently whether to apply the tools available for maintaining the balance of the transmission system, in compliance with the provisions of Regulation (EU) No 312/2014.

h) If the network user has organised natural gas market membership, it may offer the short term standard products in accordance with the Market Rules.

i) The transmission system operator shall be entitled to trade short term standard products of different direction (sale/purchase) in relation to the gas day concerned before and/or within the gas day in order to maintain hydraulic balance. During such trade the transmission system operator shall not be liable to compensate the concerned market players/network users for damages arising as a result of its decisions made in order to achieve the above objectives.
j) The transmission system operator shall be entitled to choose (as required by the hydraulic need and considering the lowest cost principle) the virtual or network point of the transmission system of which the offered title-based and/or network point-related short term standard product it wishes to use.
k) If the conditions stipulated in paragraph i) are of no importance in relation to the transmission system, the transmission system operator shall use the short term standard products in accordance with Regulation (EU) No 312/2014.
l) Network users shall pay the fee defined in the relevant chapters for the balancing natural gas used for balancing the imbalance between the source and their consumption, and also other costs incurred in restoring the balance to the Central Counterparty, the transmission system operator or the partner carrying out the balancing, in accordance with the relevant legislation.
m) If hydraulic balance cannot be reached on the transmission system with the trade of short term standard products due to source surplus, the transmission system operator shall be entitled to physically reduce the takeover at any entry point. In such cases the transmission system operator shall specify the network users having source surplus based on the allocated consumption/source data most recently provided by the system operators, and shall reduce the source at the entry point(s) nominated by such network users. Networks users having source surplus during the allocation shall be affected by the reduction in proportion to and to the extent of their imbalances. The transmission system operator shall not be liable for any potential damages arising as a result of the reduction.
n) The transmission system operator shall – while treating the business-confidential information confidentially – disclose the information on the short term standard products used for maintaining the balance of the transmission system on its website and shall also send such information to the Authority each month with detailed reasons.

2.3.2.3. Hydraulic balancing at the distribution system

a) The natural gas distribution network user shall be obliged to carry out the measures imposed by the distribution system operator in order to maintain the system balance. The powers of action of the distribution system operator shall be set out in the network usage contracts.
b) The distribution system operator shall continuously monitor the hydraulic balance of the natural gas distribution system by measuring the gas traffic of the distribution system's entry-exit points.
c) Imbalance may occur in the following cases:

   i. off-takes at exit (consumption) points are less/more than the requested performance;
   ii. malfunction at the transmission system;
   iii. malfunction at the distribution system.

d) The distribution system operator may use the following tools to restore system balance:

   i. initiating restriction at the designated transmission system operator.

e) If the transmission system operator observes at the exit point of the transmission pipeline that a state different from the normal operation has arisen at the distribution pipeline, it shall without delay notify the neighbouring network operator.

2.3.3. Determining and settling the daily balancing natural gas volume

a) The transmission system operator shall every day, after closing the gas day and based on the data allocated at the entry-exit points of the transmission system and at the “Hungarian Virtual Trading Point (MGP)”, establish the natural gas volume injected and taken off by the network user. The imbalance between such established injections and off-takes shall be the commercial imbalance of the network user, i.e. the amount with the correct sign of balancing gas used by its consumers.
b) If the total amount of natural gas taken off from the transmission system by the network user on a given gas day exceeds the total amount of gas injected by such network user, balance shall be restored by using balancing natural gas, which the network user shall purchase from the transmission system operator through the Central Counterparty at the marginal purchase price established based on the business code of the transmission system operator.
c) If the total amount of natural gas taken off from the transmission system by the network user on a given gas day does not reach the total amount of gas injected by such network user, the network user shall sell the balancing natural gas volume to the transmission system operator through the Central Counterparty at the marginal selling price established based on the business code of the transmission system operator.
d) The Information Platform automatically creates the transaction specified in paragraphs b) and c) for the Central Counterparty based on the data of the transmission system operator. Financial settlement of the created transactions shall be carried out according to the business code of the Central Counterparty and the contract concluded by the parties.

2.4. Allocation

2.4.1. General rules

a) System operators and natural gas producers shall carry out allocation in accordance with the relevant chapter of the Code.
b) If the transmission system operator manages more than one network points as a merged network point based on its business code, its neighbouring network operator shall submit a merged allocation in relation to such network points.
c) The transmission system operator shall be obliged to provide the necessary data free of charge to every concerned party for controversial and uncontroversial allocations as well in order to carry out allocation.
d) The neighbouring network operator connected to the transmission system shall be obliged to send the allocated final monthly energy content of the network user to the

transmission system operator on the Information Platform of the transmission system operator at the latest on the 4th business day from the date of provision of the basic data delivered by the transmission system operator but no later than until 3.00 p.m. on the 12th day of the month following the gas month.

e) If a neighbouring network operator connected to the transmission system fails to carry out the allocation, the transmission system operator shall allocate the measured data at the concerned exit or production points in proportion to the nominations submitted for the given point.

f) The allocation following the gas day shall be considered as final allocation when determining the daily balancing natural gas volume of the network user and calculating the daily balancing fee and transmission nomination imbalance surcharge.

g) If the allocation is carried out in proportion to the nomination for reasons attributable to the neighbouring network operator connected to the transmission system and it can be proved that surcharge, contractual penalty payment obligation or any other damages are consequently incurred by the network user, the neighbouring network operator connected to the transmission system shall be liable for such payment obligations.

h) If consumers not entitled for universal service and also consumers entitled for universal service take off gas at the on-site pipeline, the distribution system operator shall carry out the allocation for the premises based service provider using the network in accordance with the principle of difference.

i) If, in relation to PODs having remote data transmission system, the meter readings of the given hour are not forwarded (via the infrastructure of the remote data transmission equipment) to the settlement database of the distribution system operator, a replacement value specified in paragraph 3.1.9.4 f) shall be established for the gas hours of the concerned period.

j) During data exchanges associated with the allocation, the distribution system operators and network users shall be obliged to apply the rules of the Data Exchange Regulation specified in Annex IX of the Code.

k) The Authority shall, for each distribution system operator and for the calendar year, pre-establish the minimum amount of lost and unaccounted for-gas to be allocated. The total lost and unaccounted for-gas allocated by the distribution system operator in the calendar year may be different from but can never be less than such amount. The distribution system operators shall independently determine the monthly shares of the lost and unaccounted for-gas per gas delivery stations. The distribution system operators shall prepare a report to the Authority on the amount of allocated lost and unaccounted for-gas until the 31st of January of the year following the subject year. The distribution system operator shall, at the time of allocation and re-allocation procedures, publish on its website the lost and unaccounted for-gas per gas delivery stations calculated during the end of gas day allocation and end of month re-allocation procedure.

2.4.2. Allocation at the entry, injection and withdrawal network points of the transmission system

a) The neighbouring network operators of the transmission system shall allocate the energy content (kWh) measured at the entry points to the network users of the transmission system, and shall supply data on the allocated volumes to the network users.

b) The producer shall be responsible for allocation within the fully and partially isolated system in relation to the virtual entry point of the transmission system corresponding to the given production entry point.
c) Allocation rules associated with foreign neighbouring network operators of the transmission system are included in the interconnection agreement concluded with them. The transmission system operator shall indicate the individual allocation rules in its business code.

2.4.3. Allocation at the gas delivery station exit points of the transmission system

2.4.3.1. Calculating the after-gas day allocated gas volume

a) After-gas day allocation is based on the gas delivery station takeover volume, which is equal to the actual daily traffic measured at the entry point of the distribution system. The volumes allocated to the concerned network users shall be determined as follows:

i. The transmission system operator shall publish the volume measured at the exit point in energy content expressed in m^3, kWh and MJ interpreted on 0 °C and 15 °C to the neighbouring network operator connected to the transmission system until 10.00 a.m. on the day following the gas day. The data supply shall include the daily average calorific value interpreted on 15/15 °C and the gross calorific value interpreted on 25/0 °C of the concerned point. The distribution system operator shall divide the total amount of energy provided in MJ for each network point by the total amount of energy provided in kWh, and shall use the thus arising ratio specified to 7 decimal places during the allocation to convert the energy amounts produced in MJ.
ii. The distribution system operator shall totalize, for natural gas traders and also for gas delivery stations, the daily measured consumption of consumers having meters allowing remote reading.
iii. The distribution system operator shall determine the daily consumption of consumers not having a meter (flat rate consumers) by evenly dividing the statutory monthly consumption volume by the number of days in the month concerned.
iv. To get the volume to be allocated to consumers with profile, we have to subtract from the gas delivery station's takeover amount the amount allocated to transmission loss and measurement difference and the consumption values (summed up for the gas delivery station) of consumers measured daily and of consumers not having a meter.

$$A(t) = G(t) - AHMK(t) - \sum_K M_K(t)$$

Where:

A(t) –the total volume to be allocated on gas day t at the given gas delivery station to consumers with profile
G(t) – the natural gas volume taken over at the given gas delivery station on gas day t

AHMK(t) – the volume allocated to the transmission loss and measurement difference of gas day t and the given gas delivery station

$M_K(t)$ – the total consumption of users without profile (measured daily or flat rate consumers) of natural gas trader K on gas day t at the given gas delivery station

v. The distribution system operator shall divide the share of consumers with profile between the natural gas traders in proportion to their daily profile consumptions calculated on the basis of the procedure described in paragraph 2.5.4.

vi. Establishing the total allocated consumption of consumers with profile of the natural gas traders with formulas:

$$AF(t) = A(t) \times \frac{PF\ (t)}{\sum PF\ (t)}$$

Where:

AF(t) – consumers with profile-related allocated consumption of the concerned natural gas trader at a given gas delivery station on gas day t

A(t) –the total volume to be allocated on gas day t at the given gas delivery station to consumers with profile

$PF\ (t)$ – profile consumption of the concerned natural gas trader, calculated for the given gas delivery station, for gas day t and in accordance with the rules on profiling.

$\sum PF\ (t)$ - PODs having a profile and supplied by the total of natural gas traders located at the area behind the gas delivery station, the sum of its profile consumptions calculated for gas day t in accordance with the rules on profiling.

vii. The daily allocated volume of a network user equals to the sum of its share in the consumptions with profile and its daily measured and established consumption, aggregated for its consumers without profile.

viii. The distribution system operator shall accordingly upload the energy amount per gas delivery stations, network users and nomination rows rounded to the nearest whole number to the Information Platform of the transmission system operator until 12.00 p.m. on the day following the gas day. The distribution system operator shall settle imbalances arising as a result of conversion and rounding via the daily allocated lost and unaccounted for-gas.

ix. The neighbouring network operator shall supply data to the network users on the allocated volumes at the times specified by the Data Exchange Regulation set out in Annex IX of the Code.

x. The neighbouring network operator shall, for consumers having a meter allowing remote reading, provide the POD-level energy contents in kWh to the network users.

xi. The neighbouring network operator shall, for consumers not having a meter allowing remote reading, provide to the network users the volumes in kWh, aggregated to gas delivery stations.

xii. If consumers taking off from the neighbouring network without a contract cannot be excluded from using the network without incurring damage by other parties, allocation shall be carried out in relation to contracted consumers and also to consumer(s) taking off without a contract against the transmission loss and measurement difference of the distribution system operator.

xiii. The neighbouring network operator shall allocate zero consumption for consumers disconnected or suspended. Measurement- or profile-based allocation shall be applied for any other consumption suspensions.

xiv. The allocation of the merged transmission system exit point of the fully and partially isolated system shall be carried out by the distribution system operator in accordance with the present paragraph.

2.4.3.2. Calculating the gas volume allocated during re-allocation

a) The neighbouring network operator connected to the transmission system shall be obliged to carry out re-allocation procedure on the Information Platform of the transmission system operator on the 4th business day from the date of provision of the basic data delivered by the transmission system operator to the distribution system operators but no later than until 3.00 p.m. on the 12th day of the month following the gas month, and on the next business day shall supply data on the allocated volumes to the network users.

b) The transmission system operator shall on the 5th business day following the gas month publish the volume measured at the exit point in energy content in m^3, kWh and MJ interpreted on 0 ^{o}C and 15 ^{o}C to the neighbouring network operator connected to the transmission system, broken down to days. The data supply shall include the daily average calorific value interpreted on 15/15 ^{o}C and the gross calorific value interpreted on 25/0 ^{o}C of the point concerned for the month concerned. The distribution system operator shall divide the total daily amount of energy provided in MJ for each network point by the total daily amount of energy provided in kWh, and shall use the thus arising ratio specified to 7 decimal places during the allocation to convert the energy amounts produced in MJ.

c) Daily allocation during re-allocation procedure shall be carried out in accordance with paragraph 2.4.3.1, while taking into consideration the below criteria:

   i. Consumers whose consumption is measured each month shall not be deemed as consumers with profile during the re-allocation procedure.

   ii. If there is a change in the scale factor after the consumption of a metering point has been read, the distribution system operator shall enforce the effect of such change in the monthly allocation for the days between the reading and the end of the month by modifying the daily allocated value.

   iii. The neighbouring network operator shall, by way of derogation from subparagraph 2.4.3.1 a) x., provide the POD-level energy contents to the network users in kWh in relation to each and every consumer.

2.4.3.3. Correcting incorrect allocation

The incorrect allocation of the distribution system operator shall be corrected in accordance with the distribution system operator's correction settlement specified in the present Code.

2.4.4. Special allocation rules

a) In case of entry-exit points where the neighbouring network operators have agreed to apply OBA to settle the marketed gas volume, allocation shall be carried as described below.

   i. The allocated volume corresponds to the result of the matching specified in the interconnection agreement concluded by the neighbouring network operators or, in the absence thereof, in paragraph 2.2.4 of the Code.
   ii. The imbalance between the allocated volume and the volume actually delivered and taken over by the system operators shall be settled on the OBA invoice.

b) In case of border crossing (interconnection) entry-exit and injection and withdrawal points where OBA invoice is not used by the neighbouring network operators for settling the marketed gas volume, allocation shall be carried out in proportion (pro rata) to the nomination.
c) Allocation of transaction notifications at the entry-exit points and at the "Hungarian Virtual Trading Point (MGP)" shall be carried by the concerned transmission system operator.
d) The energy content of transaction notifications shall remain unchanged when allocated.
e) At one-way network points, the allocated volume of nominations in the reverse direction of the point corresponds to the result of the matching specified in the interconnection agreement concluded by the neighbouring network operators or, in the absence thereof, in paragraph 2.2.4 of the Code.

2.4.5. Within-day allocation

a) The transmission system operator shall supply within-day allocated data to the network users free of charge, in accordance with the terms and conditions defined in the business code, and the transmission system operator shall publish such data supply on its Information Platform. Such data supply shall be based on the allocated data provided by the neighbouring distribution system operator on the one hand and on the other hand, at network points where allocation is based on the last confirmed nomination (and not on the measured volume), the pro rata temporis part of the confirmed nomination shall be the within-day allocation.
b) The transmission system operator shall make available to the neighbouring network operator the energy content broken down to hours (kWh/h), related to the entry-exit points and already available from the start of the gas day until 12.00 p.m. and 4.00 p.m. in the SCADA system on its Information Platform each gas day until 1.00 p.m. and 5.00 p.m.
c) Neighbouring network operators of the transmission system shall until 2.00 p.m. and 6.00 p.m. for each hour be obliged to allocate to the network users of the transmission

system the energy content published under paragraph b) on the Information Platform of the transmission system operator for the exit and entry points. THE distribution system operator shall carry out the allocation nomination row by nomination row, broken down to within-day measured consumers, consumers without meter and consumers with profile.

d) Within-day allocation procedure on the distribution system:

   i. The exit point energy content published by the transmission system operator shall be allocated to each network user by adding up the volumes below:

      - hourly volume of consumers having within-day measured data;
      - hourly volume of consumers not having a gas meter, calculated from the monthly natural gas consumption to be taken into consideration pursuant to the relevant regulation;
      - the hourly volume calculated by the distribution system operators based on the lost and unaccounted for-gas ratio (%) published on their website;
      - the hourly pro-rata volume of the overall gas delivery station volume with profile, calculated based on the scaling factors aggregated to network users.

e) The transmission system operator shall, based on the allocations and indicating the applied method, publish to the network users the energy amounts relating to the entry-exit points allocated on them.
f) The allocation carried out in accordance with the procedure set out in paragraphs a)-e) shall not be used for settlement with the network users.
g) The transmission system operator shall not be responsible for the accuracy of the allocation carried out in accordance with the procedure set out in paragraphs a)-e), but shall be responsible for carrying out the publication described in paragraphs a)-e) based on the incoming or calculated data.
h) If the network user is not informed about the balance position or incorrect information is provided to the network user on the balance position, the distribution system operator causing such misinformation and responsible for the failure of within-day allocation or for the incorrect within-day allocation shall indemnify the network user against any and all confirmed damages arising therefrom. If the distribution system operator fails to carry out within-day allocation, the transmission system operator shall not be liable for any damages resulting from a faulty balance position established under the alternative procedure carried out in accordance with paragraph 2.4.1 e) of the Code.

2.5. Settlement

2.5.1. General rules

a) The basic time unit of settlement is the gas day.
b) The system operators shall for each day charge the actual gas traffic in volume (in m^3 with the reference temperature of 0°C and calculated from 15 °C measured volume) and energy content (kWh) that is based on gross calorific value with the reference temperature of 25/0 °C.

c) Settlement of using the interconnected natural gas system shall be based on the data measured by the natural gas metering equipment specified in the Code and on the allocation thereof.
d) System usage fees shall be paid to the system operators in accordance with the rates specified in the Tariff Decree and the payment conditions defined in the bilateral contracts.
e) The transmission system operator shall make available to the network users the settlement documents, reports related to the usage of the transmission system on its Information Platform.

2.5.2. Settlement at the transmission system

2.5.2.1. 2.5.2. Settlement with the operators of neighbouring networks

2.5.2.1.1. Content items of the settlement

a) At the transmission system, the daily data supply associated with the neighbouring network operators shall at least contain the below data for each entry and exit point:

i. measured volume (MJ based on calorific value with the reference temperature of 15/15 °C, m^3 with the reference temperature of 15 °C, kWh based on calorific value with the reference temperature of 25/0 °C, m^3 with the reference temperature of 0 °C);
ii. quality parameters (calorific value (15/15 °C), Wobbe Index (25/0 °C), gross calorific value (25/0 °C));
iii. gas composition.

2.5.2.1.2. Daily day-to day data supply at the transmission system

The transmission system operator shall publish on its Information Platform the data of the daily measured volume of entry or exit points to the neighbouring network operator until 10.00 a.m. after the gas day is closed, with the content specified in paragraph 2.5.2.1.1 of the Code.

2.5.2.1.3. Monthly preliminary data supply at the transmission system

The transmission system operator shall prepare a monthly preliminary data supply until 9.00 a.m. on the 3rd business day following the closure of the gas month based on the daily day-to-day data supply, and shall publish such data supply on its Information Platform to the neighbouring network operator with the content specified in paragraph 2.5.2.1.1 of the Code.

2.5.2.1.4. Final monthly settlement at the transmission system

The transmission system operator shall prepare a monthly final settlement until 9.00 a.m. on the 5^{th} business day following the closure of the gas month based on the measurements obtained from the flow computers, and shall publish such settlement on its Information Platform to the neighbouring network operators with the content specified in paragraph 2.5.2.1.1 of the Code.

2.5.2.1.5. Metering report and inspection slip

a) The transmission system operator and the neighbouring network operators shall prepare a report at the end of the settlement period on the quantity and quality of unallocated natural gas physically delivered or taken over at the given exit point. The report shall contain the quantity summated for the last day of the settlement period and expressed in volume and energy amount as well.
b) The amount of energy is established each day, therefore the monthly energy amount is the sum of the energy amounts calculated on the days of the given period.
c) The transmission system operator shall certify in a report attachment to the neighbouring network operator the quantity of the natural gas delivered and taken over each day (in volume and in energy amount as well), the quality and composition data and the compliance with paragraph 3.1.3 of the Code.
d) The transmission system operator shall prepare and send the signed report to the neighbouring network operators once in a month, until the 5th business day of the month following the subject month.

2.5.2.1.6. Settlement in the absence of certified measurements

a) The monthly gas transfer-acceptance protocol shall be based on the settlement data of the daily volumes established where the metering systems are located. If the content of the daily memories is incorrect, the monthly volume shall be established using the memories of the previous month. If the content of the memories of the previous month is also incorrect, gas settlement data shall be calculated based on the difference of the readings of the cumulative internal meter. If such device is also faulty, data defined based on the mechanical meters shall be used. If no information can be obtained from the flow computer and turbine metering is used, gas volume shall be established based on the mechanical meter of the turbine.
b) Derogations are permitted only in justified cases and to the extent that is justified, if a failure occurs in any of the metering systems, if on-site inspection is carried out on such systems or if the systems are replaced, and the derogations shall be recorded in a report.
c) Determining the volume delivered without measurement:

    i. If the measurement loss does not exceed one hour, the volume of the previous hour shall be taken into account. When determining the hourly volume, the parties involved in the settlement may also use the average of the consumptions of the hours preceding and following the loss, if they conclude that the volume determined by such method will result in a more accurate settled volume due to the change in the nature of the consumption.
    ii. If the measurement loss exceeds one hour, the volume shall be determined by taking into account the data of the previous hour and also of the similar period of the previous day. If the previous day is of a different nature (business day or public holiday), the data of the closest day of similar nature shall be applied.
    iii. If the measurement loss exceeds 24 hours, the data of the previous days, the data of the previous week's days of similar nature, and also the temperature adjusted data of the same period of the previous year shall be taken into

account. In such cases the concerned neighbouring network operator and the transmission system operator shall determine the volume together.

2.5.2.2. Settlement with the network users

The transmission system operator shall prepare for each network user a daily final data supply on the day following the gas day, monthly final settlement on balancing (balancing gas, with allocation of result, balancing surcharge, nomination imbalance surcharge) at the end of the month, and monthly corrected settlement (volume fee, odourisation fee, capacity overrun surcharge, gas use imbalance of the final and corrected settlement) after the receipt of the data of monthly flow computer readings and of the re-allocation procedure carried out by neighbouring network operators.

2.5.2.2.1. Content items of the settlement

a) At the transmission system, the daily data supply shall, in relation to each and every network user, at least contain the below data for each entry-exit point:

   i. allocated heat (kWh);
   ii. nomination imbalance (kWh/day);
   iii. quality parameters (calorific value (15/15 °C), Wobbe Index (25/0 °C), gross calorific value (25/0 °C));
   iv. total gas composition;
   v. ID of the transferring/receiving customer.

b) The transmission system operator shall also be obliged to provide in relation the network users the below data during daily data supply:

   i. source-consumption balance of the gas day (kWh);
   ii. the basis for nomination imbalance surcharge (kWh) and the surcharge (HUF).

2.5.2.2.2. Daily final data supply at the transmission system

The transmission system operator shall prepare a daily balance about the previous gas day on the basis of the data allocated to the network users, and shall make available such balance to the network users on its Information Platform until 2.00 p.m. following the gas day.

2.5.2.2.3. Final monthly settlement at the transmission system

a) The transmission system operator shall prepare a monthly final settlement for each day of the month until 9.00 a.m. on the 5th business day following the closure of the gas month based on the daily final data supply, and shall publish such settlement on its Information Platform.
b) The balancing settlement based on the daily final allocation shall be carried out in accordance with the business code of the transmission system operator.
c) The transmission system operator shall draw up and sign a separately detailed purchase-sale protocol about the balancing gas traffic on the basis of the final daily

allocation data, and shall make available such protocol to the network users on its Information Platform until the 5th business day after the subject month.

2.5.2.2.4. Corrected monthly settlement at the transmission system

a) The corrected monthly settlement shall be prepared on the basis of the measurement data red from the flow computers, the quantitative data corrected in a protocol with the neighbouring network operators and the result of the re-allocation procedure.
b) The transmission system operator shall prepare a corrected settlement at the latest until the 15th day of the month following the closure of the given gas month, and the network users shall access such settlement on the Information Platform of the transmission system operator.
c) Content items of the monthly corrected settlement are the same as the content items specified in paragraph 2.5.2.2.1 of the Code.
d) After the corrected monthly settlement, the transmission system operator shall issue an inspection slip about the gas quality for each network point with the content described in its business code.
e) Settlement of the imbalance between the balancing gas charged in accordance with paragraph 2.5.2.2.3 of the Code on the basis of the daily allocation and the result of the re-allocation procedure shall be carried out in relation to the given gas day by the transmission system operator as follows:

   i. The transmission system operator shall issue and sign a purchase-sale protocol about the imbalance between the balancing gas defined on the basis of the daily data and the result of the re-allocation procedure, and shall make available such protocol to the network users on the Information Platform until the 15th day following the subject month.
   ii. Settlement of the volumes recorded in the protocol specified in paragraph i shall be carried out in accordance with the terms and conditions laid down in the business code of the transmission system operator.
   iii. The gas prices to be applied when settling the correction transactions associated with the gas days and the changes in imbalance:

      - If source surplus has occurred at a network user on a given day, the network user has sold balancing natural gas and is involved in the correction procedure as seller, the total balancing imbalance of the given day shall be settled with the transmission system operator at the marginal selling price.
      - If supply shortage has occurred at a network user on a given day, the network user has purchased balancing natural gas and is involved in the correction procedure as buyer, the total balancing imbalance of the given day shall be settled with the transmission system operator at the marginal purchase price.
      - If source surplus has occurred at a network user on a given day, the network user has sold balancing natural gas but is involved in the correction procedure as a buyer having supply shortage, from its total balancing imbalance the source surplus associated with the given day shall be settled at the marginal selling price, while the supply shortage in excess thereof

shall be settled at the marginal purchase price with the transmission system operator.

- If supply shortage has occurred at a network user on a given day, the network user has purchased natural gas but is involved in the correction procedure as a seller having source surplus, from its total balancing imbalance the supply shortage associated with the given day shall be settled at the marginal purchase price, while the source surplus in excess thereof shall be settled at the marginal selling price with the transmission system operator.

2.5.2.3. Settlement of the sales margin realised via the sale of balancing natural gas, settlement of costs incurred in connection with balancing actions

a) No profit or loss may be generated at the transmission system operator as a result of its activities undertaken in order to carry out network balancing, or as a result of settling the related balancing gas traffic and receiving the costs related to the provision of network balancing activities.
b) The transmission system operator shall for each gas day establish the negative or positive sales margin **($ÉK_{kiegy}$)** between the network balancing activities and the purchase and selling values of balancing natural gas, and shall charge such margin to the network users involved in balancing as neutrality charge for balancing.
c) The transmission system operator shall for each gas day establish the initial and closing volume of the balancing natural gas stock (KI_{nykwh} and KI_{zkwh}, respectively), and the initial and terminal value of such stock (KI_{nyFt} and KI_{zFt}, respectively)
d) The below items increase the balancing natural gas stock on a given gas day:

    i Natural gas volume purchased by the transmission system operator on the trading platforms with the purpose of network balancing for performance on the given gas day ($V_{hidrkwh}$) at the actual purchase price (V_{hidrFt}),
    ii Purchase of the network users' source surplus (V_{egykwh}) by the transmission system operator during the gas day settling at the marginal selling price (V_{egyFt}) applicable on the given gas day.

e) The below items reduce the balancing natural gas stock on a given gas day:

    i Natural gas volume sold by the transmission system operator on the trading platforms with the purpose of network balancing via performance of the given gas day ($E_{hidrkwh}$) at the actual selling price (E_{hidrFt}),
    ii Sale for the network users having supply shortage (E_{egykwh}) by the transmission system operator during the gas day settling at the marginal purchase price (E_{egyFt}) applicable on the given gas day.

f) The transmission system operator shall for each gas day calculate the charges specified in the natural gas codes approved by the Authority in a resolution, in the public notices of the operators of the trading platforms and in the tariff package chosen by the transmission system operator, as follows:

    i Fixed charges invoiced periodically and provided in Hungarian Forints shall be divided in accordance with the period of performance by the number of days in the period of performance, the resulting value shall be the fixed charge of one gas day ($D_{áll}$),
    ii Volume-based values shall be established in Hungarian Forints by multiplying the transmission volume defined in the commercial transactions relating to the balancing actions concluded by the transmission system operator on the trading platform on the given gas day with the valid specific charge ($D_{vált}$).

g) In order to establish the sales margin ($ÉK_{kiegy}$), the cost of goods sold (**COGS**) shall be calculated, as follows:

$$\mathbf{COGS} = ((\mathbf{KI_{nyFt}} + \sum \mathbf{V_{hidrFt}} + \sum \mathbf{V_{egyFt}}) / (\mathbf{KI_{nykwh}} + \sum \mathbf{V_{hidrkwh}} + \sum \mathbf{V_{egykwh}})) * (\sum \mathbf{E_{hidrkwh}} + \sum \mathbf{E_{egykwh}})$$

h) The sales margin of the gas day ($\mathbf{ÉK_{kiegy}}$) shall be established by the below formula:

$$\mathbf{ÉK_{kiegy}} = \sum \mathbf{E_{hidrFt}} + \sum \mathbf{E_{egyFt}} - \mathbf{COGS} - \mathbf{D_{áll}} - \mathbf{D_{vált}}$$

i) It the above formula gives a negative sales margin ($\mathbf{ÉK_{kiegy}}$), losses were incurred by the transmission system operator on the given gas day.

j) It the above formula gives a positive sales margin ($\mathbf{ÉK_{kiegy}}$), profit was generated at the transmission system operator on the given gas day.

k) Before settlement with the network users is carried out, the calculated sales margin ($\mathbf{ÉK_{kiegy}}$) shall be divided into two parts (for the purpose of settlement in proportion to the charged imbalances of the gas day ($\mathbf{EGY_{ar}}$) and for the purpose of settlement in proportion to the transmission performances ($\mathbf{SZT_{ar}}$)), based on the below calculation:

l) If the initial ($\mathbf{KI_{nykwh}}$) volume of the natural gas stock is less than the closing ($\mathbf{KI_{zkwh}}$) volume of the natural gas stock, then:

i the below pro-rata part of the sales margin shall be divided in proportion to the imbalances:

$$\mathbf{EGY_{ar}} = \mathbf{ÉK_{kiegy}} * (\sum \mathbf{V_{hidrkwh}} + \sum \mathbf{V_{egykwh}} - \sum \mathbf{E_{hidrkwh}} - \sum \mathbf{E_{egykwh}}) / (\sum \mathbf{V_{hidrkwh}} + \sum \mathbf{V_{egykwh}})$$

ii the below pro-rata part of the sales margin shall be divided in proportion to the transmission performances:

$$\mathbf{SZT_{ar}} = \mathbf{ÉK_{kiegy}} * (\sum \mathbf{E_{hidrkwh}} + \sum \mathbf{E_{egykwh}}) / (\sum \mathbf{V_{hidrkwh}} + \sum \mathbf{V_{egykwh}})$$

m) If the initial ($\mathbf{KI_{nykwh}}$) volume of the natural gas stock is equal to the closing ($\mathbf{KI_{zkwh}}$) volume of the natural gas stock, the total sales margin shall be divided in proportion to the transmission performances ($\mathbf{SZT_{ar}}$).

n) If the closing ($\mathbf{KI_{zkwh}}$) volume of the natural gas stock is less than the initial ($\mathbf{KI_{nykwh}}$) volume of the natural gas stock, then:

i the below pro-rata part of the sales margin shall be divided in proportion to the imbalances:

$$\mathbf{EGY_{ar}} = \mathbf{ÉK_{kiegy}} * (\sum \mathbf{E_{hidrkwh}} + \sum \mathbf{E_{egykwh}} - \sum \mathbf{V_{hidrkwh}} - \sum \mathbf{V_{egykwh}}) / (\sum \mathbf{E_{hidrkwh}} + \sum \mathbf{E_{egykwh}})$$

ii the below pro-rata part of the sales margin shall be divided in proportion to the transmission performances:

$$\mathbf{SZT_{ar}} = \mathbf{ÉK_{kiegy}} * (\sum \mathbf{V_{hidrkwh}} + \sum \mathbf{V_{egykwh}}) / (\sum \mathbf{E_{hidrkwh}} + \sum \mathbf{E_{egykwh}})$$

o) The specific sales margin ($\mathbf{FEGY_{ar}}$) shall be established before dividing the sales margin in proportion to the imbalances charged on the gas day ($\mathbf{EGY_{ar}}$):

i In order to establish the specific sales margin (**$FEGY_{ar}$**) as a share of imbalances, the sales margin (**EGY_{ar}**) identified at the transmission system operator in relation to balancing natural gas transactions shall be divided by the aggregate volume of the total balancing natural gas purchased by the transmission system operator during the gas day from the network users at marginal selling price (**$\sum V_{egykwh}$**) and of the total balancing natural gas sold to the network users at marginal purchase price (**E_{egykwh}**).

$$FEGY_{ar} = EGY_{ar} / (\sum V_{egykwh} + \sum E_{egykwh})$$

ii The network user shall be liable for or entitled to the share of the imbalance established in relation to balancing natural gas transactions at the transmission system operator calculated based on the monthly specific balancing difference and the balancing natural gas volume purchased by the network user from the transmission system operator at marginal purchase price or sold by the network user to the transmission system operator at marginal selling price during the gas day. With this method, the sales margin established in proportion to the imbalances identified daily at the transmission system operator shall be fully divided among the network users. The formula for calculating the imbalance due to a network user (**$SZEGY_{ar}$**)**:**

$$SZEGY_{ar} = FEGY_{ar} * (V_{egykwh} + E_{egykwh})$$

p) Specific sales margin (**$FSZT_{ar}$**) shall be established before dividing the sales margin in proportion to the transmission performances (**SZT_{ar}**).

Transmission performance of a given network user associated with the gas day (**R_{SZT}**) shall meal the volume the given network user had delivered throughout the whole gas day and measured at the exit point, provided that injection and title transfer volumes are not included in such volume.

q) In order to establish the specific sales margin defined on the basis of the transmission performances (**$FSZT_{ar}$**), the sales margin to be settled with the transmission system operator in proportion to the transmission performances (**SZT_{ar}**) shall be divided by the total transmission performance charged and recorded by the transmission system operator during the gas day:

$$FSZT_{ar} = SZT_{ar} / \sum R_{SZT}$$

r) The network user shall be liable for or entitled to the product of its daily transmission performance recorded by the transmission system operator (**R_{SZT}**) and the specific sales margin (**$FSZT_{ar}$**) identified on the basis of the transmission performances. With this method, the sales margin established in proportion to the transmission performances identified daily at the transmission system operator (**SZT_{ar}**) shall be fully

divided among the network users. The formula for calculating the imbalance due to a network user (**$SZSZT_{ar}$**):

$$SZSZT_{ar} = FSZT_{ar} * R_{SZT}$$

s) The profit or loss calculated daily shall be indicated in the daily settlement extract prepared by the Central Counterparty.
t) The transmission system operator shall for each gas day publish on the Information Platform the sales margin charged for the network users.

2.5.2.4. Rules on determining title transfer surcharge

a) Network users violating the nomination rules of transaction notifications created at a physical network point shall be obliged to pay title transfer surcharge to the extent of the non-performance. The level of such surcharge shall be regulated by the Price Application Decree.
b) Determining the extent of non-performance:

   i. The difference between the transaction notification's sum with the correct sign, created for injection on a given gas day at a given physical network point, and the allocated injected volume.
   ii. The difference between the transaction notification's sum with the correct sign, created for delivery on a given gas day at a given physical network point and the allocated exited quantity.

2.5.2.5. Rules on determining, settling nomination imbalance surcharge

a) Nomination imbalance is identified on the basis of the volumes nominated and allocated for the nomination rows. Nomination imbalance surcharges payable by the network users at the network points in case of daily imbalance shall be determined as follows:

Nomination imbalance	**Imbalance surcharge**
$\sum Q_{actual/allocated} - \sum Q_{nom} \leq \sum Q_{nom} * 14\%$	N/A
$\sum Q_{actual/allocated} - \sum Q_{nom} > \sum Q_{nom} * 14\%$	The surcharge (HUF/kWh) defined pursuant to the Price Application Decree for the imbalance exceeding the 14%

$\sum Q_{actual/allocated}$: the sum of the volumes allocated for the nomination row of the network user at the given network point.
$\sum Q_{nom}$: the sum of the volumes recorded for the nomination row specified by the network user within the given network point.

b) A power plant having mFRR capacity shall, acting in its own right or via its natural gas trader, be entitled to apply for an exemption from the nomination imbalance surcharge at the transmission system operator in possession of the required authority certificate,

pursuant to the terms and conditions specified in the interconnection agreement concluded by and between the power plant having mFRR capacity and the transmission system operator.

c) The transmission system operator shall no later than until the 10th business day of the month following the given gas month prepare the protocol on the nomination imbalance based on the final balancing settlement and the use of mFRR capacity, and shall send such protocol to the network users. The transmission system operator shall publish the detailed nomination imbalance statement for the network users on its Information Platform.
d) The transmission system operator shall be obliged to pay a transmission operator's nomination imbalance surcharge specified in the Price Application Decree on such gas volume that has not been delivered to the network users due to unplanned maintenance works not falling under paragraph 3.1.10.3 e) of the Code, and maintenance works not published in accordance with paragraph 3.1.10.3 d) of the Code but resulting in capacity decrease at the transmission system. The nomination imbalance surcharge shall be calculated based on the difference between the average daily gas volume taken off by the network user at the given entry-exit point during the 10 gas days preceding the shutdown and the average daily gas volume taken off by the network user during the shutdown/capacity decrease.
e) If the network user's nomination imbalance exceeds ±2 %, the transmission system operator shall pay a transmission operator's nomination imbalance surcharge specified in the Price Application Decree to the network users on the imbalance exceeding the ±2 %, if the allocated volumes to be considered final as far as balancing is concerned are established for the network users based on a pro-rata procedure at the border crossing (interconnection) point.
f) No nomination imbalance surcharges shall be enforced by the transmission system operator for such points and period that are affected by maintenance and reconstruction works. The transmission system operator shall each month prepare an editable, detailed statement on such data and shall also make these available on the Information Platform to the network users, concurrently with sending the invoice on nomination imbalance surcharge.
g) If the network user nominates the lost and unaccounted for-gas separately, on separate supplier-shipper pair in accordance with paragraph 2.2.5.4 of the Code, the network user shall be exempt from nomination imbalance surcharge in relation to the imbalance between the volume nominated at such nomination row and the volume allocated for the gas day.

2.5.2.6. Capacity overrun at the transmission system

a) At such entry points of the transmission system, where there is no agreement on using OBA,
    i. if injection is carried out by one network user, the hourly capacities used by the network user on the given gas day are the hourly measured volumes of the entry point (kWh/hour), or
    ii. if injection is carried out by more than one network users, the hourly volumes (kWh/h) allocated by the neighbouring network operator

    shall form the basis of calculating capacity overrun.

b) In case of entry-exit points where the neighbouring network operators have agreed to apply OBA to settle the marketed gas volume, and at border crossing (interconnection) points where the transmission system operator determines the volume allocated to each network user based on a pro-rata procedure, no hourly capacities used by the network users shall be established, as no capacity overrun is possible at such points.
c) In case of a consumer's exit point directly connected to a natural gas pipeline supplied by one network user, the hourly capacities used on the given gas day by the network user are equal to the hourly measured volumes (kWh/hour) of the exit point.
d) In case of transmission system exit points of consumers connected to the transmission system or directly connected consumers supplied by more than one network users, capacity overrun shall be calculated based on the hourly used capacity data allocated (measured and established) by the neighbouring network operator.
e) Capacity overrun (entry point and exit point - kWh/hour) shall be monitored and established in accordance with the relevant paragraphs[21] of the Price Application Decree.
f) For the exit points of the transmission system, the hourly peak allocated each gas day shall be established as follows for the network users booking capacities at each exit point:

    i. The transmission system operator shall pass to the neighbouring network operator until the 5th business day of the month following the gas month the hourly kWh/hour value established by multiplication from the hourly average gross calorific values of the exit point and the m^3/hour data with the reference temperature of 0 °C calculated using the m^3/hour data of 15 ^{o}C measured at the exit points of the transmission system, the hourly average gross calorific values, the hourly MJ/hour value established by multiplication from the hourly average calorific value of the exit point and the m^3/hour data of 15 ^{o}C measured at the exit point of the transmission system, and the hourly average calorific values. If the hourly gross calorific value or calorific value is not available to the transmission system operator, the daily average gross calorific value or calorific value defined pursuant to paragraph 3.1.3.3 f) of the Code shall be applied when establishing the capacity overrun.
    ii. The neighbouring network operator shall upload the hourly peaks of each gas day based on the kWh/hour data specified in paragraph i, and also the within-gas day times related to such peaks for each exit point and network user booking capacities at the natural gas pipeline to such platform of the transmission system operator's Information Platform that has been designed for such purpose until the 20th day of the month following the gas month. The transmission system operator shall publish on its Information Platform such data for the network users booking capacities at the natural gas pipeline within 5 business days from the provision of the data. Independent of the number of the consumers supplied by the network user booking capacities at the natural gas pipeline or by the distribution pipeline network users supplied by such network user, the hourly peak shall be established as a cumulative data.

[21] Section 11 of the Price Application Decree

iii. The neighbouring network operator shall calculate the kWh/hour volumes as follows:
- the neighbouring network operator divides the MJ/hour value published in paragraph i for the exit point by the kWh/hour value published in paragraph i,
- defines the energy amount expressed in kWh/hour of consumers having hourly measured data using the thus arising ratio specified to 7 decimal places.

iv. For network users having consumers with profile as well, the neighbouring network operator shall establish the maximum used capacity as follows:
- The consumption data of capacity-charge consumers, having hourly measurements, of the network user booking capacities at the natural gas pipeline or the distribution pipeline network users supplied by such network user shall for each gas day be summated for each hour of the gas day in kWh energy amount, and shall be subtracted from the transmission system exit point's gas day hourly data associated with the same hour, and such part of the daily network and measurement loss (lost and unaccounted for-gas) established for the exit point that is pro-rated with the same hourly volume of the exit point shall be subtracted from the gas day hourly data. This will give us the aggregate within-day hourly consumption (kWh/hour) of consumers with profile related to the given exit point of the transmission system. Such hourly data shall be divided in proportion to the daily allocated gas volumes of consumers with profile of the network user booking capacities at the natural gas pipeline or the distribution pipeline network users supplied by such network user (the ratio shall be rounded to 3 decimal places), this will give us the established hourly gas volumes of consumers with profile of the network user booking capacities at the natural gas pipeline or the distribution pipeline network user supplied by such network user. Then the hourly volumes measured and calculated pursuant to paragraph iii and the volumes of consumers with profile (kWh/hour) shall be aggregated for each hour and for each network user booking capacities at the natural gas pipeline. For a network user booking capacities at the natural gas pipeline from whom the neighbouring network operator purchases the lost and unaccounted for-gas, such part of the daily network and measurement loss (lost and unaccounted for-gas) established for the exit point that is pro-rated with the same hourly volume of the exit point shall be added to the hourly cumulative volume.
- If the above procedure cannot be applied, because the hourly consumption (kWh/hour) of consumers, having measurement data via remote data transmission system, of the network user booking capacities at the natural gas pipeline or of the distribution pipeline network user supplied by such network user exceeds the hourly value (kWh/hour) of the given exit point, the hourly peak of the given exit point of the transmission system shall be calculated for the given day from the daily volume allocated to the network user booking capacities at the

transmission system, by dividing by the peak load hours associated with the exit point.

v. If the established hourly gas volume (specified in paragraph iv) available to consumers with profile of the network user booking capacities at the natural gas pipeline or the distribution pipeline network users supplied by such network user exceeds the total nominal capacity of the gas meters installed at the PODs of consumers with profile of the network user booking capacities at the natural gas pipeline or the distribution pipeline network users supplied by such network user, then the calculated gas volume of the network user booking capacities at the natural gas pipeline or the distribution pipeline network users supplied by such network user available for their consumers with profile is equal to the total nominal capacity of the gas meters installed at the PODs of consumers with profile.

vi. The neighbouring network operator shall for each gas day and each network user booking capacities at the natural gas pipeline choose the highest hourly value and the related time from the energy amount (kWh/hour) specified in accordance with paragraph iv, and shall upload such data to the Information Platform of the transmission system operator.

vii. The transmission system operator shall - based on the booked, available capacities for the given gas day and at the given entry-exit point of network users booking capacities at the natural gas pipeline, and on the hourly volumes allocated in accordance with paragraphs c), d), f) iii-vi - establish the capacity overrun and the related time at the entry-exit points of the transmission system for each gas day and for each network user booking capacities at the natural gas pipeline.

viii. The transmission system operator shall make available on its Information Platform the data specified in paragraph f) vii for the network users booking capacities at the natural gas pipeline and having capacity overrun, no later than until the 10th business day after the deadline specified in paragraph f) ii expires. The neighbouring network operator carrying out the allocation shall simultaneously provide to the network user the network user's hourly peak related to the gas day broken down to gas delivery stations, with the purpose of post-metering of short term bookings.

ix. The transmission system operator shall provide to the neighbouring network operator the allocated hourly volumes subject to capacity overrun for each distribution pipeline network user within 10 business days from the expiry of the deadline specified in paragraph f) ii on its Information Platform (by nomination rows distributed in proportion to the daily allocation), and the neighbouring network operator shall within 10 business days review and, if necessary, modify such hourly data on the platform of the Information Platform that has been created for such purpose. If the neighbouring network operator fails to review the data within the deadline, the transmission system operator shall be entitled to take into account the allocated hourly volumes in proportion to the daily allocated volumes of the distribution pipeline network users when establishing capacity overrun. The neighbouring network operator shall be liable towards the network user for any and all damages arising as a result of the neighbouring network operator's failure to supply data.

x. The network users booking capacities at the natural gas pipeline shall declare to the neighbouring network operator any observations raised in relation to the allocated hourly peaks within 5 business days from the publication specified in paragraph f) vii. The concerned neighbouring network operator shall be obliged to consider the observations and notify the network user and the transmission system operator about its result within 5 business days form receiving the observation.

g) The transmission system operator shall issue the surcharge invoices (in the capacity booking unit of the concerned entry-exit point, i.e. in kWh/hour at injection and exit points) on capacity overrun to the network users booking capacities at the natural gas pipeline no later than within 60 days following the gas month.
h) If the gas day capacity utilisation of the network user involved in interruption before the gas day exceeds the value determined for such network user in the nomination confirmation, i.e. makes an interruption failure, the transmission system operator shall be entitled to charge the interruption surcharge defined in the Price Application Decree to the concerned network user.
i) A power plant having mFRR capacity shall be entitled to apply for capacity overrun surcharge exemption in possession of the required authority certificate, acting in its own right or via its natural gas trader, under the conditions specified in the interconnection agreement concluded by and between the power plant having mFRR capacity and the transmission system operator.

2.5.2.7. Mean temperature of the gas day

a) The mean temperature established for the gas day by calculating the arithmetic average of the data of the meteorological database of the Hungarian Meteorological Service (OMSZ) measured every hour (within the 24-hour period starting at 6.00 a.m. and ending at 6.00 a.m. on the next day). If data are available for less than 20 hours at the given meteorological station in the given time period and the data shortage persists during the data supply period of the next day as well, the missing gas day mean temperatures shall be established based on the measurements of the nearby meteorological stations.
b) Application of the mean temperature of the gas day:

i. in case of exit points, the given daily mean temperature specified in paragraph (a), based on the classification of the Price Application Decree[22].
ii. in case of entry points, the arithmetic average of the mean temperature established pursuant to paragraph (a) for OMSZ measurement points defined in the Price Application Decree[23].
iii. Such mean temperature data shall be provided by the OMSZ under the Price Application Decree.

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2.5.3. Settlement at the system of the storage system operator licensee

2.5.3.1. Daily and hourly operative data supply of the storage system operator licensee

a) The storage system operator licensee shall maintain a daily balance on the energy amount-based aggregate gas traffic for each network user. The storage system operator licensee shall develop the content items and the system of drawing up such balance, which shall be published in the business code of the licensee.
b) The transmission system operator shall at every hour of the gas day provide to the storage system operator licensee the gas day's hourly aggregate volumes of the underground storage 'zero' point measurements in order to prepare the storage system operator's balance. The transmission system operator shall until 10.00 a.m. on the day following the gas day provide the gas day's quality parameters recorded by the 'zero' point quality measuring equipment (calorific value, Wobbe Index, gross calorific value).
c) The transmission system operator shall provide the volume-weighted average gross calorific value, necessary for settling the previous day, for the Unified Underground Storage point as well.

2.5.3.2. Monthly settlement of the storage system operator licensee

a) Settlement shall be based on the aggregate daily underground storage gas traffic balance (created by summating the actual traffic of every underground storage operated by the storage system operator licensee), and on the reports issued on the basis of such balance.
b) The storage system operator licensee shall at the latest on the 5th business day following the gas month send a monthly settlement to the network users as described in the business code related to natural gas storage.
c) The stock data indicated in the reports shall also be considered as certified stock data, the storage system operator licensee shall not issue another document for such purpose.
d) The billing, payment and claim and debt settlement regime associated with monthly settlement shall be included in the business code of the storage system operator licensee.

2.5.4. Settlement at the natural gas distribution system

2.5.4.1. Settlement at the exit points of the natural gas distribution system

a) The gas volume taken off by the network users at the exit points of the distribution system shall be established as follows:

    i. For consumers measured within the day and red under the monthly metering day reading, settlement shall be carried out based on the measured data.
    ii. The absolute value of the imbalance between the settlement prepared based on the monthly red volume (MSCONS) and the volume established during allocation shall, in energy amount, not exceed 2%.
    iii. The consumption of consumers with profile not red monthly shall be established in accordance with the procedure described in paragraph 2.5.4.5 of the Code.

iv. Settling with flat rate consumers shall be carried out in accordance with the relevant legislation.
v. The rules applicable to consumers with profile shall be applied for settlement with consumers having prepay-type meters.

b) The frequency of consumption metering equipment and metering system readings, and also the data supply scheme associated with forwarding the measurement data shall be included in the business code of the distribution system operator and the contract concluded with the natural gas distribution network users.
c) During data exchanges associated with mutual settlement and provision of settlement meter readings, the distribution system operators and network users shall be obliged to apply the rules of the Data Exchange Regulation specified in Annex IX of the Code.

2.5.4.2. Determining the profile

a) The universal service providers/natural gas traders shall send the *'Profile Classification Questionnaire'* provided as Annex II of the Code to the consumer, and then, after it has been completed, to the distribution system operator.
b) The distribution system operator shall consider the completed questionnaire and refer the metering point to the consumption profile appropriate to the nature of the consumption based on the *'decision tree'* provided in Annex II of the Code.
c) Consumer profiles shall be established for metering points of base-rate consumers not having remote data transmission.
d) No separate profile classification will be carried out for flat rate consumers not having a meter.
e) If the distribution system operator does not receive the information necessary for referring the consumers with profile to a distribution system operator's profile or receives insufficient information, the distribution system operator shall be entitled and obliged to carry out the first profile classification based on the available data. In such cases the distribution system operator shall not be liable for any anomalies, potential damages arising as a result of profile classification.
f) The distribution system operator shall be liable for any additional costs - with the exception set out in paragraph a) - incurred as a result of the failure to carry out the complete profile classification.
g) The natural gas trader supplying the consumer may initiate the modification of the profile classification at the distribution system operator. The distribution system operator cannot deny the re-classification of the consumer, provided that re-classification is justified based on the *'decision tree'* by the data of the '*Profile Classification Questionnaire'* submitted and completed by the natural gas trader.
h) The profile classification of a consumer may be modified as of the day of successfully reading the gas meter of the POD after the *'Profile Classification Questionnaire'* has been received and positively evaluated by the distribution system operator.

2.5.4.3. Establishing the scaling factor

a) The distribution system operator shall monitor the settlement--related meter reading data of each metering point, namely

i. the exact date of the meter reading,
ii. the red meter readings,
iii. in relation to the metering point, the name of the OMSZ measurement point specified in the Price Application Decree[24].

Based on such data, the distribution system operator shall for each reading period (starting at the beginning of the first gas day following the previous reading and terminating at the end of the gas day when the reading is carried out) establish the metering point's gas consumption for the reading period, expressed in normal cubic metre of gas, as a difference between the red meter readings.

b) The distribution system operator shall follow the algorithm set out below to establish the volatile-weight daily average temperature values rounded to tenth of a degree for each day of the closed reading period on the basis of the gas day's actual average temperatures associated with the meteorological district specified in paragraph a) iii and published by the OMSZ until 10.00 a.m. on the day following the gas day.

$$C_{t'} = \frac{C_t * 1 + C_{t-1} * \frac{1}{2} + C_{t-2} * \frac{1}{3} + C_{t-3} * \frac{1}{4} + C_{t-4} * \frac{1}{5} + C_{t-5} * \frac{1}{6} + C_{t-6} * \frac{1}{7}}{1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} + \frac{1}{6} + \frac{1}{7}}$$

where:

$C_{t'}$ the volatile-weight temperature value

C_t the daily average temperature measured by the OMSZ for the gas day

C_{t-1} … C_{t-6} the daily average temperatures measured by the OMSZ for the days preceding the gas day by 1-6 days

c) The distribution system operator shall establish the products of the daily profile multipliers associated with the daily volatile-weight average temperatures of the reading period and of the multiplicative season factors as set out in paragraph b) for household consumers and household customers as well, and by summating such products we get the normalised profile consumption of the reading period.

d) The scaling factor of the reading period is calculated as the actual gas consumption of the reading period divided by the normalised profile consumption established as set out in the previous paragraph.

e) In order to be able carry out the profile classification of metering points newly added or reconnected to the distribution system, or of metering points not having a closed reading period for other reasons, the universal service provider or natural gas trader of the consumer shall provide to the distribution system operator the annual estimated consumption amount of such metering points, and the distribution system operator shall, based on such data, calculate the scaling factor as set out in paragraphs a)-d).

f) The value of the scaling factor of the POD shall always be redefined after each cyclic reading, except it the opening or closing meter reading is not the result of onsite reading (for example consumer dictated data or distribution system operator's estimation).

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When defining the new scaling factor for consumers settled annually, the period of minimum one year preceding the cyclic reading shall be considered.

g) If the consumer initiated the halting at the measurement point, the scaling factor shall be zero.

h) The new scaling factor defined as set out in the present chapter shall be applied during daily allocation as of the gas day following the day of uploading the meter readings actually red and passing the credibility analysis to the settlement system, or, in case of end of month re-allocation procedure, the gas day following the day of meter reading.

2.5.4.4. Determining profile consumption

a) The profile consumption of a metering point on a gas day shall be established by the distribution system operator as the product of the metering point's currently applicable scaling factor, the daily profile characteristics established based on the daily average temperatures of the metering point's meteorological district and the multiplicative season factor.

b) The daily profile characteristics shall be defined using the profile characteristics tables set out in Annex II of the Code, the actual temperatures published for the gas day by the OMSZ at 10.00 a.m. following the gas day, or, in the absence thereof, the temperatures forecasted by the OMSZ, and are based on the daily volatile-weight average temperatures rounded to tenth of a degree, established using the algorithm set out in paragraph 2.5.4.3 of the Code.

c) The scaling factor currently valid for the metering point is the scaling factor of the metering point's most recently closed reading period. In duly justified cases (disconnected consumers, consumers with terminated status, off-season period of seasonal consumers, after reconnection etc.) the distribution system operator may deviate from such rule and may establish the metering point's currently valid scaling factor of the gas day using other methods. The concerned natural gas trader shall be notified about the deviation from the rule and the reason therefor.

d) The multiplicative season factor is the multiplication factor ensuring that the normalized consumption unit related to the volatile-weight average temperature value of the given day suits the period (season) of the year.

e) The distribution system operators shall, in relation to consumers with profile-based settlement, assign the settlements, including the PODs, located on the service area of the distribution system operators to the main and secondary metering stations of the OMSZ in order to take into account the average temperature data of the gas day necessary for determining the after-gas-day allocations. In case of allocation, the atmospheric pressure and temperature data published by the OMSZ until 10.00 a.m. on the gas day subject to allocation, and based on the measurements of OMSZ of the previous gas day shall be taken into consideration.

f) The profile consumption of a POD on a given gas day is the sum of the daily profile consumptions calculated for the metering points belonging to the POD. The profile consumption of a natural gas trader on a given gas day is the sum of the profile consumptions of the PODs supplied by it.

g) The formula for establishing the profile consumption of a metering point:

$$PF_i(t) = s_i(t) \times p_i(t) \times m_i(t)$$

where:

$PF_i(t)$ – profile consumption of metering point i on gas day t

$s_i(t)$ – scaling factor of metering point i applicable on day t

$p_i(t)$ – the profile multiplier applicable on day t, established on the basis of the profile classification of metering point i and the daily mean temperature of metering point i's temperature district, published by OMSZ for day t at 10.00 a.m. on the day following gas day t

$m_i(t)$ – the multiplicative season factor applicable on day t, established on the basis of the profile classification (household or business segment) of metering point i and the daily mean temperature of metering point i's temperature district, published by OMSZ for day t at 10.00 a.m. on the day following gas day t.

2.5.4.5. Settlement with natural gas distribution network users

a) Settlement of the natural gas volume delivered, distributed on the distribution system shall be carried out in accordance with the provisions of the network usage contract.
b) The distribution system's usage and volume fees are based on the energy amount applicable to the given consumer, allocated for the settlement period during the re-allocation procedure.

2.5.4.6. Settlement in the absence of certified measurements

If no certified distribution system operator measurements are available, paragraph 2.5.2.1.6 of the Code shall apply.

2.5.4.7. Capacity overrun on the natural gas distribution system

a) In case of meters with remote data logger, the distribution system operator shall calculate the hourly kWh volumes using the hourly gas quality data provided as defined in paragraph 2.5.2.6 f) i.
b) For capacity-charge consumers' meters with remote data logger, the distribution system operator shall register, for the exit point of the distribution system, the used hourly capacity and also the hourly peak established for the gas day during the re-allocation procedure. The distribution system operator shall make the registered data (based on which capacity overrun will be calculated) available to the network users, following the provisions of the Data Exchange Regulation specified in Annex IX of the Code. Capacity overrun (kWh/hour) shall be monitored and established in accordance with the relevant paragraphs[25] of the Price Application Decree.
c) The distribution system operator shall establish the consumer's booked hourly capacity overrun using the values (in kWh/hour unit of measurement) defined in the data supply specified in paragraph (a).
d) For PODs subject to capacity overrun, the distribution system operator shall provide at least the below data for each gas day, following the provisions of the Data Exchange Regulation specified in Annex IX of the Code: POD, extent of capacity overrun (kWh/h),

[25] Section 29 of the Price Application Decree

booked hourly capacity (kWh/h), hourly peak of the gas day (kWh/h), date of capacity overrun (year, month, gas day, gas hour).

2.5.4.8. Report and inspection slip

a) Settlement carried out under the network usage contracts shall be based on the volumes established during the re-allocation procedure.
b) The distribution system operator shall each month make available to the network users the inspection slips published by the transmission system operator or the producer (in case of isolated systems).

2.5.4.9. Fee items paid by natural gas distribution network users

Certification of the performance of the network usage contracts shall be carried out in accordance with the provisions of the business code of the distribution system operators. Distribution network system usage fees shall be paid to the distribution system operator in accordance with the fee items of the Tariff Decree and under the conditions stipulated in the network usage contracts.

2.5.4.10. Distribution system operator’s correction settlement

a) In relation to a given settlement period, the imbalance between the final energy amount based on the actual red consumption and calculated on the basis of the meter reading applied during customer migration, and the energy amount allocated to the consumers during the re-allocation procedure shall be settled by correction settlement.
b) Correction period: the period between the current reading result aimed at settling or the meter reading applied during customer migration and the preceding last reading aimed at settling or the day following the meter reading applied during customer migration.
c) When considering correction, the sum of the volumes allocated for the gas days during the re-allocation procedure shall be regarded as allocated consumption in the period subject to correction settlement.
d) When considering correction settlement, the free and successful cyclic reading undertaken by the distribution system operator under its business code, and also the meter reading applied during customer migration shall be regarded as settlement reading.
e) Correction settlement shall be carried out each month, in relation to the readings relevant for correction settlement.
f) For PODs red annually, the period subject to correction settlement may be longer or shorter than 365 days.
g) The distribution system operator and the network user shall be obliged to settle correction settlement under a contractual relationship – under the network usage contract defined by the business code of the distribution system operator –, simultaneously with obtaining the access permission to the natural gas distribution system. When carrying out the correction settlement governed by the network usage contract, the procedure described in the Code shall be followed.
h) During data exchanges associated with the distribution system operator’s correction settlement, the distribution system operators and network users shall be obliged to apply the rules of the Data Exchange Regulation specified in Annex IX of the Code.

2.5.4.11. Establishing correction volumes

a) The correction volume shall be provided for each POD, and shall be aggregated for correction groups, network users.

b) Establishing the correction volume of the POD with formulas, where:

$$MK_i = LF_i - \sum_{t \in T_i} \mathrm{AF}_i(\mathrm{t})$$

MK – volume correction calculated at POD i for reading period T_i

LF_i - consumption of POD i measured in the reading period T_i

$AF_i(t)$ – allocated consumption of POD i on gas day t

c) The correction volumes calculated for the PODs shall be summarized on the correction invoice separately for correction groups and pricing for each concerned natural gas trader.

d) In relation to each correction group, the correction group volume of the natural gas trader shall be the sum of the correction volumes of such PODs of the natural gas trader that belong to the given group.

e) Establishing natural gas trader's correction group volumes with formulas per pricing (type 2S/2H), where:

$$MK_C = \sum_{i \in C} \mathrm{MK}_i$$

MKc- correction group volume of the consumers of correction group *C* of natural gas trader *K*, for month *M*

M(K) – volume correction of metering point i for month M

The natural gas trader's correction volume is the sum of the natural gas trader's correction group volumes.

f) When issuing the correction invoice, the distribution system operators shall each month prepare a statement claiming the indicator of POD corrections (arising as a result of measurement failure of the PODs' metering equipment that can be used for remote data transmission), i.e. the percentage of PODs per distribution system operator's areas in relation to which corrections have been generated in the correction analytics (prepared by the distribution system operators), arising as a result of the data supply failure of the consumption metering equipment that can be used for remote data transmission.

$$indicator = \frac{\mathrm{k}}{n}$$

n = the number of PODs in the distribution system operator's area having remote data transmission equipment in the given month

k = the number of those PODs, in relation to which corrections have been generated in the monthly correction analytics as a result of the data supply failure of consumption metering equipment that can be used for remote data transmission

g) The following shall not qualify as data supply failure:

i. correction generated as result of differences arising from rounding (+/- 11 kWh)
ii. if correction volume has been generated on the profiled measuring equipment at a given POD.

2.5.4.12. Determining the correction groups

a) PODs shall be classified into correction groups in order to determine the correction volumes and prices.
b) The below correction groups can be identified on the basis of the frequency of cyclic readings:

i. monthly correction group: PODs red monthly (the settlement price is the current monthly correction settlement price, regardless of the length of the settlement period)
ii. annual correction group: PODs red annually (the settlement price is the current annual correction settlement price, regardless of the length of the settlement period)

2.5.4.13. Correction settlement prices and fees

a) The elements of correction settlement price:

i. correction settlement natural gas price [HUF/kWh]
ii. correction transmission volume fee [HUF/kWh]
iii. correction distribution volume fee [HUF/kWh]

b) Correction settlement natural gas prices to be applied during correction settlement shall be calculated each month by the transmission system operator. The monthly settlement natural gas price is a weighted average price, which shall be calculated as set out below, where:

$$\bar{x} = \frac{\sum_{i=1}^{n} w_i x_i}{\sum_{i=1}^{n} w_i},$$

x: monthly settlement natural gas price (HUF/kWh)

n: number of transactions conducted on the TPs in the month in question

w_i: energy amount in kWh of individual transactions conducted on the TPs

x_i: price (HUF/kWh) of individual transactions conducted on the TPs

i: ID of an individual transaction

c) The monthly correction transmission volume fee is the transmission volume fee valid on the last day of the subject month.

d) The monthly correction distribution volume fee of each distribution area shall be calculated as the arithmetic average of the fees of tariff lines of 20 m^3/h and above valid on the last day of the subject month.
e) The monthly settlement natural gas price shall be established in HUF/kWh, separately for natural gas groups 2S and 2H.
f) The transmission system operator shall publish the monthly settlement natural gas prices on its website until the 20th calendar day of the month following the subject gas month.
g) The annual settlement natural gas price shall be calculated as the annual value [HUF/kWh] of the cyclic readings of the PODs subject to annual settlement and of the monthly average prices of the month of customer migration and the preceding 11 months, established pursuant to paragraph b), weighted with the monthly percentages of the 'Consumption curve' specified in the Implementation Decree[26].
h) The correction transmission volume fee of the given annual cycle shall be calculated as the cyclic readings of the PODs subject to annual settlement and the transmission volume fees of the month of customer migration and the preceding 11 months, weighted with the monthly percentages of the 'Consumption curve' specified in Annex 13 of the Implementation Decree.
i) The correction distribution volume fee of the given annual cycle shall be calculated for each distribution area as the weighted average of the cyclic readings of the PODs subject to annual settlement and of the distribution volume fees of tariff lines below 20 m^3/h valid for the month of customer migration and the preceding 11 months, where the monthly percentages of the 'Consumption curve' specified in Annex 13 of the Implementation Decree shall be regarded as weights.
j) The Authority shall calculate and publish the correction settlement prices of monthly and annual cycles until the 25th day of the month following the subject gas month on its website separately for gas qualities 2S and 2H and for distribution areas.
k) When carrying out the monthly/annual settlement of correction volumes, the monthly/annual correction settlement prices announced for the current month for each correction group shall be used for settlement the monthly/annual correction volumes established for all consumers to be settled in the current month.
l) The settlement gas value of the network user's or distribution system operator's correction group volume shall be calculated as the product of the given correction group volume and the correction settlement price established for the group.
m) The settlement gas value of the network user's or distribution system operator's correction volume shall be calculated as the sum of the appropriate correction values of the correction group volumes.

2.5.4.14. Modified correction settlement

a) The correction volume may be settled under modified correction settlement if

    i. the consumption metering equipment installed at the consumer does not measure the consumption or the consumption measurement is incorrect, and the actual consumption of the period is established by preparing a report; or

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ii. the amount of settlement is modified after the re-allocation procedure in order to rectify the incorrect reading result of settlement purposes or used during customer migration, or in order to rectify any other incorrect basic settlement data.

b) Calculating the correction volume for a period previously closed with correction:

$$EKi(u)=KFi-LFi$$

$EK_i(u)$: correction volume of the period subject to incorrect settlement

KF_i: the settlement volume (kWh) established based on the correct settlement data

LF_i: original settled volume (kWh)

i: ID of the POD

c) The correction volumes of the modified settlement shall be established for each POD together with the normal correction volumes, and shall be aggregated for corrections groups, network users.
d) Incorrectly settled volume: the volume settled in the settlement period based on the incorrect basic settlement data.
e) Correct volume to be settled:

i. the volume established the period of meter failure, and
ii. the correct volume to be settled, resulting from rectifying the incorrect meter reading,
iii. the correct volume to be settled, resulting from rectifying other settlement parameters.

f) The modified correction volume shall be established until the end of the month following the identification of the error, and shall be sent to the concerned traders together with the reports on such errors.
g) The prices of correction arising as a result of the modified settlement shall be established in accordance with the correction procedure pursuant to paragraph 2.5.4.10 c) of the Code. The gas volume subject to incorrect settlement shall be charged on the final date of the given correction settlement period and at the prices announced for the given correction group.
h) The modified settlement shall be settled until the 20th day of the second month following the month when the measurement error has been identified, and shall be delivered as part of the current correction settlement in the same accounting document as such settlement. The trader shall settle the consequences of the modified settlement with the end users based on such settlement.
i) The correction settlement of incorrect measurements shall be financially settled within 15 days from issuing the invoice.
j) Disputed settlement shall be settled in accordance with paragraph 2.5.6 of the Code.

2.5.5. Invoicing requirements

2.5.5.1. Correction settlement and invoicing

a) Correction settlement shall mean that the correction volumes and the values thereof are settled between the natural gas distribution system network user and the distribution system operator.
b) Steps of correction settlement: establishing the correction volumes using the correction settlement prices, establishing the correction values, and correction invoicing.
c) The correction volume shall be established for each POD and shall be sent electronically to the concerned network users until the end of the month following the subject month.
d) The correction invoice shall be issued in relation to the gas month subject to settlement until the 20th of the second month following the gas month.
e) If the correction value is established at least 5 days after the expiry of its deadline, the distribution system operator shall on the next business day send a report to the Authority and the concerned network users on certifying the default, and shall declare in such report the undertaken extended deadline.
f) The due date of the correction invoice shall be the 15th day following the issue date.
g) Correction settlement shall be provided separately for each correction group, and the correction group volumes and gas qualities, together with the correction settlement prices thereof shall also be indicated. The settlement unit price and the net amount shall be indicated on the invoice separately for each correction group.
h) The distribution system operator shall provide the content of the settlement item-by-item, broken down to PODs, to the network users in the form of an electronic statement provided as an annex to the invoice. The itemized statement shall contain at least the following content items: POD ID, correction group, settlement period, allocated volume, measured volume, correction volume, settlement price, correction gas value.
i) If a positive balance of trader's correction gas volume occurs, the natural gas trader shall be obliged to pay the correction volume at the given correction value against an invoice issued by the distribution system operator.
j) If a negative balance of trader's correction gas volume occurs, the distribution system operator shall be obliged to pay the correction volume at the given correction value against an invoice issued by the natural gas trader.
k) The natural gas traders and distribution system operators shall be entitled to issue an invoice under the conditions laid down in the agreement on correction settlement on the correction gas volume and value specified in the settlement.

2.5.5.2. Management of disputed correction settlement

a) If an error occurs in the correction settlement analytics, the natural gas trader may, within 5 business days from receiving the correction settlement analytics, initiate in writing at the distribution system operator responsible for settling the review and correction of the settlement, specifying the error and the concerned POD.
b) If the error is acknowledged, the distribution system operator shall send a remedial settlement /data supply to the natural gas trader in relation to the erroneous item, no later than 5 business days after the receipt of the review request.
c) If the error is refused, the distribution system operator shall send a written explanation to the natural gas trader in relation to the item complained no later than 5 business days after the receipt of the review request, and shall also indicate the reasons for the

refusal. The natural gas trader may appeal against the refusal of the review request to the Authority.

d) The distribution system operator shall forward to the natural gas trader any and all data used for preparing the disputed settlement.
e) Disputed subtotals not resolved by the natural gas trader and the distribution system operator until the correction invoice is issued shall not be invoiced.
f) After the disputes are resolved, the distribution system operator and the natural gas trader shall prepare a separate new settlement and invoice, or a settlement and invoice correcting the original.
g) The distribution system operator shall be responsible for the costs arising as a result of the subsequent justified correction of settlement data.
h) If the request for the subsequent correction of settlement data turns out to be unjustified, the costs incurred shall be borne by the requesting network user.
i) In relation to settlement errors that cannot be settled via correction, the distribution system operator and the transmission system operator shall be obliged to cooperate in order to modify the monthly gas balances. On the basis of the settlement errors identified and reported to the transmission system operator until the last day of the month following the subject month, the transmission system operator shall also be obliged to correct the settlement of the concerned network users.

2.5.6. Management of disputed settlement

a) If an error occurs in the settlement, the network user or the neighbouring network operator may, within 5 business days from receiving the settlement, initiate in writing at the network operator issuing the settlement the review and correction of the settlement, specifying the error.
b) The concerned network operator shall without delay carry out the necessary inspections after the receipt of the review request. Depending on the result of the inspection, the network operator shall send a data supply or notification with the content as specified below to the initiating network user or the neighbouring network operator no later than 5 business days after the receipt of the review request:

    i. If the error is acknowledged, the network operator shall send a correction settlement /data supply to the network user.
    ii. If the error is refused, a notification stating the fact of and grounds for the refusal shall be sent to the network user.

c) If the transmission system operator receives a complaint, the operator of the neighbouring network shall be responsible for the investigation thereof and, if the complaint is legitimate, for carrying out any necessary corrections. If an allocation is disputed, the transmission system operator shall forward to the concerned parties the data necessary for the settlement of the dispute.

2.5.7. Correction of a period closed with a final gas balance and allocation of results

a) The neighbouring network operator shall settle the imbalances identified after the end-of-month re-allocation procedure with the network users via the correction procedure described in paragraphs 2.5.4.10 c) and 2.5.4.10 d) of the Code.
b) The network operators shall be obliged to modify the period closed with a final gas balance and allocation of results or the monthly settlement corrected on the basis of the end-of-month re-allocation procedure, in accordance with the volume correction report prepared by the network operators pursuant to paragraph 2.5.7.1 b) of the Code due to a measurement error of the transmission system.

2.5.7.1. Management of measurement errors of a settlement period closed with a report

a) Volume imbalances arising as a result of measurement errors of the transmission system shall be settled for the concerned period on the basis of the re-allocation procedure.
b) The transmission system operator shall record the volume imbalances arising as a result of a measurement error in a report prepared with the neighbouring network operator. When establishing the volumes, the procedure set out in paragraph 3.1.6.5.1 of the Code shall be applied.
c) The transmission system operator shall correct on its Information Platform the volume reported pursuant to paragraph b) for each day of the period affected by the erroneous measurement.
d) The transmission system operator shall send a modified monthly transfer-acceptance protocol and inspection slip about the corrected volumes to the neighbouring network operator.

2.5.7.2. Rules on the re-allocation procedure related to a settlement period closed with a report

a) The neighbouring network operator shall be obliged to carry out the re-allocation procedure at the concerned entry-exit points in accordance with the format set out on the Information Platform of the transmission system operator, and shall electronically send the result thereof to the transmission system operator no later than 1 business day after the re-allocation notification.
b) If the neighbouring network operator fails to modify the settlement data resulting from the measurement error with the procedure set out in paragraph a), the transmission system operator shall carry out the settlement in proportion to the last confirmed nominations. If the transmission system operator receives a complaint related to the erroneous allocation, the neighbouring network operator carrying out the erroneous allocation shall be responsible for the investigation thereof and, if the complaint is legitimate, any necessary corrections towards the network users.
c) The transmission system operator shall prepare for the concerned network users the corrected end-of-month settlement report of the given month, complying with the modified allocation.
d) The transmission system operator shall prepare a daily itemized statement for the concerned network users on the volume and value imbalance between the original end-of-month gas usage and the gas usage resulting from the allocation modified during the re-allocation procedure. The natural gas volume imbalances resulting from the

modification shall be settled at the natural gas price defined in paragraph 2.5.2.2.4 e) of the Code.

e) The transmission system operator shall directly settle with the network users the imbalances resulting from the modification.
f) The concerned parties shall mutually issue an invoice or correction invoice on the volumes reported in accordance with paragraph c).

2.6. Data supply

2.6.1. General rules

a) The day-to-day operation of the interconnected natural gas system and the management of gas market processes require data supply. To this end, the actors of the gas market are required to supply data as determined in the Gas Supply Act, the Implementation Decree, other laws, resolutions of the Authority, the Code, and the business codes of licensees.
b) Both the party supplying and requesting data shall ensure the security of data, take the technical measures and have in place the procedural rules that are necessary for enforcing the data protection and secrecy rules.
c) System operators must retain the basic traffic, capacity and quality data of all systems in their operation for 7 gas years, and provide access to them as necessary.
d) The IT systems and data management processes of the licensees must comply with national and international data protection regulations.

2.6.2. Data management and protection of business secrets

a) The protection of business secrets shall apply to:

   i. data resulting from the licensees' activity and classified as business secrets;
   ii. business secrets received from the other party or parties under contract or agreement;
   iii. business secrets disclosed to licensees due to their role in the interconnected natural gas system.

b) Data can be classified into 3 groups: secret data, confidential data and public data. The classification procedure provides a standard regulation for the discharge of duties related to classification and the authorisation of access. Data traffic agreements must specify the classification of the individual categories of data.
c) Those participating in the cooperation shall also handle this information confidentially during their own work. Participants shall ensure that their agents, employees and officers handle confidentially all data, information and documentation rated as confidential by their respective owners. The participants of cooperation may not disclose these to any third party, and may not use them for any purpose that may harm the respective owner's interests.
d) In the data traffic agreements, the parties must agree on the categories and exchange of confidential data and/or business secrets and information.
e) Data or information rated as confidential or any part thereof may only be disclosed to third parties under the written consent of the data or secret owner.

f) Confidential data and information may only be processed to the extent and for the duration necessary for discharging the relevant task; the receiving party shall verifiably destroy the same if it is no longer necessary for the performance of its duties.

2.6.3. Data supply serving users' interests

a) The distribution system operator and/or the premises based service provider shall, at the request of the user, system operator or network user directly connected to its system, hand over the report or inspection slip containing the quantity and quality data of the delivered natural gas.
b) The distribution system operator and the premises based service provider shall supply the data to the users connected to their system based on the data provided by the transmission system operator as part of daily and monthly settlement.
c) The transmission system operator shall draw up the report or inspection slip containing the quantity and quality data of the delivered natural gas on a monthly basis and send it to the directly connected consumers and the system operators.

2.6.4. Data supply between system operators

a) System operators shall supply the data necessary for the management of daily gas traffic as well as the data supporting settlement free of charge among themselves. For any data supply requested beyond that scope, system operators may charge the fee specified in their business code.
b) With a view to the ordering of interruptions and the verification of their execution, at the specific request of the designated transmission system operator, distribution system operators shall disclose the consumption data of the users disposing of the interruptible capacity specified by the designated transmission system operator in the form determined in Annex V of the Code, broken down by network points.
c) Pursuant to the Gas Supply Act[27], with a view to data supply necessary for the development of the interconnected natural gas system, distribution system operators and directly connected consumers shall supply data until 1 September each year by individual or merged network points for the following 10 gas years in accordance with Annex VII/2 of the Code. Annex VII/1 of the Code completed with the relevant factual data relating to the current gas year and months shall be submitted by 1 November each year. Furthermore, distribution system operators shall supply the data as per Annex VIII of the Code to the transmission system operator regarding the previous calendar year by 1 February. Distribution system operators and directly connected consumers shall submit the data to the transmission system operator.
d) With a view to the ordering of restrictions and the verification of their execution, distribution system operators shall aggregate the consumption data of the users listed in the Restriction Order by network points and restriction categories and, at the specific request of the designated transmission system operator, disclose it in accordance with the calculation method and in the form determined in Annex V of the Code.

2.6.5. Data traffic channels

[27] Sections 81 to 85 of the Gas Supply Act

a) Actors of the natural gas market falling under the scope of the Code shall apply the following data communication channels:

   i. servers operated by the distribution system operator;
   ii. the Information Platform of system operators and network users;
   iii. internet website;
   iv. other electronic means, e-mail.

b) In urgent cases, the above data supply may also be performed by the designated transmission system operator in an oral message from a phone equipped with voice recorder, but it shall be confirmed in writing within 24 hours. The designated transmission system operator is responsible for the appropriate recording and archiving of such oral message.
c) Other official, non-operational data may be supplied in writing, in a duly signed mail (e.g. letter, e-mail).
d) Any consignment or message sent in a form other than the above shall not qualify as official and may only serve as information.
e) The burden of proof regarding receipt of the official data supply or consignment lies with the sender.
f) Unless otherwise agreed, official data supply shall be performed in Hungarian.

2.6.6. Data exchange between distribution system operator licensees and network users

a) The Data Exchange Model supports the non-discriminative exchange of the significant amount of data created during the cooperation between distribution system operators and network users, in a uniform framework. The Data Exchange Regulation attached as Annex IX hereto specifies the channel, format, frequency and content of data exchange between distribution system operators and network users, along with the rules of application of the Data Exchange Model.
b) Where the technical or IT functions of the Data Exchange Model are unavailable due to reasons on the distribution system operator's side, network users shall be allowed to use other communication channels (e-mail).
c) Distribution system operators shall make the current Data Exchange Model available to market players on their Information Platform in a standard structure and with a standard content. The Data Exchange Regulation attached as Annex IX to the Code shall be updated if required by changes in legislation or the operation of the market, and made available to network users.

2.6.7. Operation of the Information Platform operated by the transmission system operator, related rules

a) The primary function of the Information Platform is to facilitate daily data exchange related to the utilisation of the natural gas transmission system among the transmission system operator and network users as well as the neighbouring network operators (hereinafter: **IP users**).

b) The Information Platform – along with the auxiliary database management tools – is an application system that is capable of establishing standard bi-directional data connection with other systems on the basis of pre-defined rules provided by the law.
c) IP users shall enter into agreements with the transmission system operator on their connection to and use of the Information Platform.
d) The transmission system operator shall be responsible for the development, operation and supervision of the Information Platform.
e) The transmission system operator shall establish and operate an Information Platform available to IP users and the Authority that enables the collection of the information necessary for its natural gas transmission activity as described in law and has an authorisation-based access control feature to display these information and results in a structured and transparent way.
f) The primary operational communication between the transmission system operator and IP users is facilitated by the Information Platform. Save as specified in paragraph (g), communication entailing legal effects shall take place through the Information Platform.
g) In the case of an outage of the Information Platform or any of its services, or a failure of the IP user's IT system exceeding 2 hours – if normal operation cannot be restored within the business deadline of the data exchange concerned – the operation of business processes shall be maintained by using bypass methods. The transmission system operator shall choose from the following protocols equivalent to the data provision facilitated through the Information Platform:

    i. an alternative data entry method available on the Information Platform (e.g. interactive interface, SOAP interface, file uploading) in accordance with the transmission system operator's business code,
    ii. delivery of the data upload source to the business process as an email attachment, in compliance with the default pre-defined rules regarding contents and format, in a directly processible (loadable) format,
    iii. by telefax, if paragraph i is not applicable and the number of data pieces does not exceed 100 items.

h) In lack of bypass methods, communication may also take place in the form of paper-based official mail on an ad hoc basis, provided that the transmission system operator has notified the relevant parties to that effect previously in writing. The notification shall include the subject matter of data supply and the expected duration of the bypass method.
i) Where the Information Platform is not available, the IP user shall, after checking its own IT system, inform the transmission system operator thereof by telephone or e-mail.
j) The distribution system operators and storage system operator licensees shall operate an IT system that is appropriate for processing the data provided on the transmission system operator's Information Platform and for performing the data supply obligations.
k) The transmission system operator has the obligation to:

    i. Provide the IP user, at its request, with the technical data necessary for connection.
    ii. Alert the IP user within 24 hours if their authorisation data disclosed on the Information Platform earlier have been revised.

iii. Retain the data submitted to or created on the Information Platform for at least 7 gas years, and ensure access to them in a regulated manner.
iv. Notify the IP user and the Authority of any change planned regarding the access to the Information Platform or the content or form of available means of data supply 15 days prior to the effective date of such change, on its website and by electronic mail.
v. All IP users shall be provided non-discriminatory access. The scope of available data supplies shall be set by the transmission system operator under the network usage contract concluded or under the agreement for the use of the Information Platform.

l) Services available to the IP user depending on authorisation:

i. receipt and verification of nominations / renominations;
ii. rejection / confirmation of nominations;
iii. data communications concerning allocation;
iv. disclosure of daily operational data after the gas day;
v. modification of capacity booking;
vi. capacity booking with over-nomination.

m) Where the IP user jeopardises the operation of the Information Platform or violates the mutually accepted rules of operation, the transmission system operator may deny its access.
n) Factors jeopardising operation:

i. any operation designed to manipulate or obtain the data of another partner,
ii. running of processes overloading the Information Platform, irrespective of intent,
iii. attacks endangering the operation and/or integrity of the Information Platform, irrespective of innocent (virus) or intentional causes.

o) Procedure to eliminate endangering conduct:

i. After detecting the fact of endangering conduct, the transmission system operator shall examine the effects and decide about the changes to be made to restore the normal operation of the Information Platform or to terminate the unauthorised access to data, and shall notify the affected IP users to that effect.
ii. Where the transmission system operator is unable to restore the service by its own means, it shall exclude the IP users violating the rules of operation or having no authorisation to access the Information Platform, and shall notify them to that effect.
iii. After the elimination of the problem in question, the transmission system operator shall authorise the excluded IP users to access the Platform again.
iv. Where there is a suspicion of intentional attack by the IP user or even the IP user itself has no knowledge of the cause of the incident, the transmission system operator shall – after notifying the Authority and the investigating

authorities – keep the IP user banned as long as the circumstance underlying such ban persists.

v. In the case of external attacks against the Information Platform (unknown perpetrators), the transmission system operator shall follow the general legal practice.

p) Supplementary technical solution for IP users excluded from access to the Information Platform:

i. IP users banned from access shall communicate with the transmission system operator by e-mail in the manner specified in the agreement on accessing the Information Platform so that the transmission system operator can record the data of the IP user on the Information Platform on the IP user's behalf and send the created data to the IP user.

ii. In case of purposeful wrongdoing or other incident, the banned IP user may only be granted access to the Information Platform again if the supervisory authorities agree to that.

q) The following information shall be available to all partners on the transmission system operator's website:

i. information regarding restrictions;
ii. annual downtime schedule;
iii. daily balancing gas price;
iv. methodology for the determination of available natural gas transmission capacities;
v. technical information regarding entry-exit points, technical, booked and available capacities;
vi. supply and demand information of the Hungarian gas market, nominations aggregated for the whole of the interconnected natural gas system, prediction by the transmission system operator of the domestic gas consumption for the gas day, as well as the aggregate gas volumes actually entering and exiting the system;
vii. the communications of the transmission system operator;
viii. regulations, forms;
ix. data regarding capacity surrender;
x. Quality Settlement Rules;
xi. capacity booking demand assessment documents;
xii. auction calendar;
xiii. maintenance calendar of applications;
xiv. EU data supply.

2.6.8. Single code system (EIC), LIO

a) The EIC code serves for the identification of network users and system operators, as well as the entry and exit points of the transmission system. To access the interconnected natural gas system, those authorised to access it are required to have an EIC code.

b) The designated transmission system operator has a Local Issuing Office (**LIO**) licence to issue codes, granted by the ENTSO-E organisation.
c) The code system is operated in accordance and in line with the current code handling rules of ENTSO-E/ENTSO-G, and shall only apply to the concepts defined in such rules.
d) The designated transmission system operator operates an IT system to discharge the tasks of code applications, modifications and terminations in a regulated manner, and also to store data on site and forward them to ENTSO-E CIO for approval.
e) In keeping a record of EIC codes, the designated transmission system operator is obliged to comply with the provisions of Act CXII of 2011 on the right of informational self-determination and on freedom of information and, in that spirit:

   i. it may only store other data to accompany the individual EIC code issued that are indispensable for the use of the given code, provided that the anonymity of end users is maintained,
   ii. it is obliged to develop a procedure specifying the methodology of regulated access to the IT system managing the codes.

f) The network users with access to the Hungarian natural gas system can have one EIC code issued by the LIO. When applying for a code, the applicant shall declare that is has not applied for an X-type EIC code at any other LIO.
g) The rules of creation of and application for EIC codes are set out in Annex IV of the Code.

2.6.9. Rules related to the POD structure

a) As a principle of POD management, the transmission system operator shall specify and publish the code interval available for use, while the gas sector partner applying for the code is responsible for element allocation, maintenance and for maintaining the integrity thereof.
b) POD code intervals can be viewed on the designated platform of the transmission system operator's website.
c) The mandatory elements of form regarding the code are set out in Annex IV of the Code.

2.7. Organised natural gas market

2.7.1. General rules

a) The organised natural gas market licensee shall maintain an electronic system for commercial processes. The design and operational mechanisms of the electronic system must comply with legal regulations. The regulation regarding the electronic system shall be approved by the Authority.
b) The organised natural gas market licensee is required to have an IT emergency plan and a business continuity plan, both approved by the Authority and drawn up in consultation with the transmission system operator and the Central Counterparty.

c) The organised natural gas market licensee may operate a TP for the network users who are members of the organised natural gas market. The Market Rules shall specify the fee that can be charged for the use of the organised natural gas market TP.

2.7.2. Conditions of becoming a member in the organised natural gas market; operation of the market

a) The legal or natural person becoming a member of the organised natural gas market shall have the following validly concluded contracts:

   i. network usage contract, including the terms and conditions of title transfer and balancing gas accounting;
   ii. contract concluded with the Central Counterparty.

b) The applicant may apply for membership in the organised natural gas market at the organised natural gas market licensee in accordance with the Market Rules.
c) The conditions of performance of any standardised contract introduced in the organised natural gas market, affecting a natural gas transmission, natural gas storage or natural gas distribution system in scope for this Code and relating to natural gas, secondary capacities, short-term standard products or any other derivative transaction must comply with the natural gas quality, capacity booking, nomination, allocation and balancing and/or settlement rules applicable to the relevant system.
d) The conditions of operation of the organised natural gas market are set out in the Market Rules.
e) In the operation of the organised natural gas market, the following shall be ensured:

   i. Non-discriminative access to the organised natural gas market,
   ii. the operation of the organised natural gas market must not jeopardise the compliance of the operation of the interconnected natural gas system with the law and official regulations;
   iii. where the natural gas, secondary capacity or balancing gas based product distributed in the organised natural gas market affects a natural gas transmission, storage or distribution system falling under the scope of the Code, the conditions of performance of the contract must not endanger the requirements of security of supply.

2.7.3. Cooperation between the organised natural gas market and system operators

a) The transmission system operator has the right and obligation to participate in the development of short-term standard products and standardised contracts.
b) The relevant system operator may only refuse to consent to the introduction of a given short-term standard product to the organised natural gas market where the organised natural gas market product to be introduced would jeopardise the operation or discharge of balancing tasks of the integrated high-pressure natural gas network, the correct and timely settlement of natural gas traffic or the security of supply. The reasons for such jeopardy and the refusal to grant consent shall be communicated by the relevant system operator to the Authority in writing.
c) The organised natural gas market operational licensee and the Central Counterparty having a contract with it are required to possess the IT tools determined in consultation with the transmission system operator that are necessary to connect to the transmission system operator’s Information Platform.

d) The transmission system operator shall provide the organised natural gas market licensee with the necessary information that is the prerequisite of the operation of the organised natural gas market. The detailed rules of providing data as per this paragraph shall be set out by the transmission system operator and the organised natural gas market licensee in an interconnection agreement.

3. Book III: Operational Rules

3.1. System control

3.1.1. Determination of capacities

a) By 31 August each year, the designated transmission system operator shall conduct the capacity review necessary for drawing up its 10-year development proposal and send it to the transmission system operator.
b) The system operators shall perform all feasibility calculations with respect to all the already booked capacities.

3.1.1.1. Determination of the capacity on the natural gas transmission system

a) The following capacities shall be determined for the transmission system:

   i. hourly technical capacity at the entry point (kWh/hour);
   ii. hourly technical capacity at the exit point (kWh/hour);

b) The transmission system operator shall establish the feasibility of the submitted natural gas delivery demands with reliance on mathematical modelling and hydraulic simulation (hydraulic analysis).
c) Pursuant to EU laws, the neighbouring transmission system operators shall consult on their interconnection point capacities by 31 March each year.
d) The technical capacity value of a given network point determined for 0 °C and expressed in m^3/hour shall be translated to kWh/hours in the Quality Accounting Rules based on the gross calorific value published for the given point, by rounding the kWh/hour value to a whole number in accordance with the rules of rounding.
e) The technical capacity shall be determined based on hydraulic characteristics in addition to geometrical ones, for entry and exit points.
f) In relation to the hydraulic properties, the maximum capacity and pressure data of the neighbouring networks (underground storages, import inlet points, entry points of domestic production) are determined for the period under review.

3.1.1.2. Determination of capacity in the storage system

a) The technical capacities of underground storages are as follows:

   i. (aggregate) nominal working gas capacity (kWh);
   ii. nominal injection capacity (kWh/day);
   iii. nominal withdrawal capacity (kWh/day);
   iv. current withdrawal and injection capacity (kWh/day);
   v. minimum withdrawal and injection capacity (kWh/day).

b) For network points between the transmission system operator and the storage system operator, hourly capacity shall be determined through division by 24.
c) The determination of current capacities is set out in the storage system operator licensee's business code. The storage system operator licensee shall provide

information on current capacities continuously on its own internet site and the storage system operator's Information Platform.

3.1.2. Feasibility inspection of natural gas delivery demands

The feasibility of any natural gas delivery demand depends on the following:

i. hydraulic parameters of the natural gas transmission system;
ii. the hydraulic conditions of the natural gas transmission system, i.e. the source and destination, as well as the boundary conditions of transmission.

3.1.2.1. Type and frequency of hydraulic analyses at the transmission system

a) Hydraulic analyses shall be performed with various frequencies depending on their type.
b) Tests to be performed on a daily basis:

i. optimisation of the operation of the transmission system;
ii. feasibility study of the demands (nomination) notified by network users.

c) Tests to be performed on a monthly basis:

i. determination of the capacities of the transmission system.

d) Tests to be performed on an annual basis:

i. determination of the low-capacity sections of the transmission system;
ii. determination of the development needs of the transmission system based on forecasted consumption and source data.

e) Ad hoc inspections:

i. feasibility inspection of new demands;
ii. in case of rejection of access requests, the review to be conducted under the Authority's supervision;
iii. in case of a malfunction or emergency, inspection of the possibilities of natural gas transmission.

3.1.2.2. Method to be used by the designated transmission system operator for the hydraulic inspection of the interconnected system

a) Hardware requirements:

i. The devices must meet the hardware requirements of the various hydraulic software (minimum configuration requirement) on both server and client side.
ii. Each client device shall have a display equipment in line with the software's requirements for the graphic display of hydraulic network topology.
iii. Hardware equipment must have a 99.97% availability.

iv. The hardware equipment must have back-up capacity and/or expansion options.
v. Simulation results must be stored on a historic database server with a capacity allowing storage for at least 7 years.
vi. Hardware devices must be equipped with a tool enabling the display of results in printed form.

b) The hydraulic inspection of the interconnected system must be performed using the appropriate hydraulic software working with a calculation algorithm accepted in Europe.
c) Software requirements:

i. Software programmes must be suitable to ensure bidirectional communication with external databases.
ii. Simulation programmes must be accessible according to authorisation levels.
iii. Hydraulic simulation programmes must be suitable for the inspection of both static and transient (dynamic) conditions.
iv. Simulation programmes must be equipped with graphic interfaces for data entry and result display.
v. Applications must have an installed interactive search and a print function.
vi. Simulation must allow threshold monitoring.
vii. For dynamic simulation, the software must provide the option to identify a profile entry, arithmetic, relational and logic operator.
viii. In the simulation software, it must be possible to display and parameterise all typical transmission system elements.
ix. The network built in the simulation software must have the hydraulic characteristics identical with the actual network.
x. The software must use a calculation algorithm appropriate for the temperature and pressure range to be simulated.

d) For the calculation, the software shall use the data in the database created under the applicable provisions of the Gas Supply Act[28], i.e. the technical parameters of the system and user demands, by applying the physical laws and practical formulae of natural gas.
e) Types of simulations with the hydraulic software:

i. static simulation: With the constant or static model, the image of the hydraulic system is created for a given moment in time, consequently, the programme does not take into account the changes of the system's line pack, therefore the source-consumption balance is a basic requirement for these calculations.
ii. transient or dynamic simulation: With the transient simulation model, simulation is run for a selected time interval; in this case, the programme takes into account the changes in the linepack, and calculates the changes in source, consumption, pressure, gas temperature and linepack, as well as the quality composition of gas, for the given time interval.
iii. ONLINE simulation: It calculates the conditions of the system according to transient simulation based on the measurement data incoming every 2 minutes

[28] Section 81 (2) of the Gas Supply Act

from the transmission system's measurement points. This state reconstruction calculation with a 2-minute frequency determines the current condition of the gas grid i.e. it calculates pressure, flow, gas temperature and gas composition for the transmission system's network points in accordance with the incoming measurement data.

f) The underlying data for hydraulic simulations:

   i. the geometric parameters of the pipeline system: internal diameter, length, surface roughness;
   ii. node connections;
   iii. quality and quantity parameters (gas composition, gas temperature, gas volume, pressure) of the injected natural gas at entry points;
   iv. consumed gas volume at consumption points;
   v. the condition and setpoint of the transmission system's active elements (regulators, compressor stations, shut-offs).

g) Gas transport data required for the hydraulic analysis shall be provided to the transmission system operator and the designated transmission system operator by the network users and system operators. The specific calculations for the interconnected natural gas system shall be performed by the latter.
h) During tests, efforts shall be taken to ensure constant injection quantities on an hourly level.
i) Peak hourly capacity demand values shall be calculated from the daily data of capacity demands relating to the respective exit points – based on the factual consumption data of the past years and the profile of the given consumption point –, by taking account of the simultaneity factor based on the individual profiles of the various consumption points.
j) General rules of hydraulic analyses:

   i. The network built in the simulation software must have the hydraulic characteristics identical with the tested network.
   ii. Simulation shall start from the equilibrium each time. Running a 24-hour dynamic simulation requires an initial static simulation.
   iii. For each consumption point, the simulation shall use a profile to calculate daily consumption based on the forecasted hourly peak (hourly peak x current profile multiplier).
   iv. At boiling points, gas quality shall be recorded by taking the gas composition of the given point into account. Throughout the time horizon of the simulation, gas quality calculation shall be continuous at all points of the transmission system.
   v. During the simulation, it is recommended to define one or more boiling points as a point of fixed pressure.
   vi. At fixed-pressure boiling points, the injected gas volume value shall not exceed the forecasted value.
   vii. The high pressure pipeline pressure value of boiling points with a given load shall be lower than the possible entry pressure of the boiling point.

viii. At the exit points of the system, high pressure pipeline pressure must be higher than transfer pressure. The high pressure pipeline pressure required as a minimum at the individual exit points with a view to the operation of the transmission system depends on the current conveyance procedure (including gas quality and odourisation requirements) and delivery demands. The high pressure pipeline pressure appropriate for the safe operation of the transmission system shall be determined depending on the given transmission circumstances.

ix. The entry side pressure of gas delivery stations shall be determined based on the expected winter peak load period, by hydraulic calculations, ensuring that the entry side pressure must exceed the nominal delivery pressure by at least 5 bars at each gas delivery station.

x. The node connection of the transmission system shall match the – presumed – typical connection scheme of the tested period.

xi. The setpoints of the simulated high pressure pipeline pressure regulators in the software must be identical with the actual setpoints of the tested delivery task.

xii. The setpoints of the compressor stations shall be appropriate for the typical operation of the tested delivery task. The quantity and performance data calculated at the compressor stations shall remain within the limits of the compressor machine units typically available at the compressor station in the inspected period.

xiii. No unreasonably high pressure – due to excessive air-lifting not justified by the transmitted quantity – may be present at the local parts of the system.

xiv. With a view to reducing anomalies and attaining accurate test results, two dynamic simulations shall be run after one another each time, with completely identical settings. The initial state of the first 24-hour test shall be the static value, while the initial state of the second 24-hour test shall be the result of the first 24-hour test. The second run, free from anomalies, shall be evaluated.

xv. The 24-hour aggregate source and consumption values must be identical with each other.

xvi. During the 24-hour simulation, efforts shall be taken to ensure that, at the end of the simulation, the linepack of the tested system be identical with the initial linepack i.e. efforts shall be taken to ensure daily source-consumption balance.

k) The following tasks can be performed using the hydraulic analysis:

i. optimisation of the operation of the transmission system;

ii. identification of capacity bottlenecks in the transmission system;

iii. determination of the development needs of the transmission system based on Chapter 3.3;

iv. determination of the capacities of the transmission system;

v. assessment of the feasibility of fulfilling the capacity requests of capacity applicants;

vi. hourly assignment of gas delivery stations to chromatographs required for settling according to the direction of transmission;

l) In order to carry out the activities listed in Point (k), the transmission system operator shall have staff suitable to operate hydraulic software.

3.1.2.3. Type and frequency of hydraulic analysis at the natural gas distribution system

a) The feasibility of natural gas distribution tasks shall be determined on the basis of hydraulic simulations (hydraulic analyses), which means the determination of the natural gas transmission capacity of the analysed network or of a part thereof.
b) The following tasks can be performed using the hydraulic analysis:

   i. optimization of the operation of the natural gas distribution system;
   ii. determination of capacity bottlenecks of the natural gas distribution system;
   iii. assessment of the feasibility of satisfying development needs on the basis of projected consumption at the entry points of the natural gas distribution network;
   iv. determination of the capacities of the natural gas distribution system and assessment of the feasibility of fulfilling the notified requests.

c) Hydraulic analyses - depending on their purpose and duration - can be instrumental in conducting two different types of simulations:

   i. simulations to appraise short-term requests (capacity booking within a year). This method determines the feasibility of performing natural gas distribution tasks on the natural gas distribution system, taking into account the existing users and the available performance data.
   ii. simulations to assess the feasibility of satisfying long-term capacity demand and the natural gas distribution network's development needs. The test determines the capacities that can be provided, and the technical parameters to be established, on the natural gas distribution pipeline on the basis of a presumed operating condition, the forecasted user capacity demand and the natural gas distribution pipeline's known development needs.

d) In addition to the distribution system operator's own data set, gas transport data required for the hydraulic analysis shall be provided to the distribution system operator by the network users. The range of the required gas transport data are specified in the distribution system operator's business code.
e) Core principles of the hydraulic analysis of the natural gas distribution network:

   i. base data required for the software programme performing the hydraulic analysis:
      - structure of the natural gas distribution system (hub-and-spoke or looped);
      - node connections;
      - setpoints of network pressure regulators.
   ii. boundary conditions of the simulation:
      - equilibrium as starting point;
      - hourly source-user balance;
      - opening linepack equals closing linepack;

- entry pressure exceeds pipeline pressure;
- exit pressure is lower than pipeline pressure;
- evaluation.

3.1.3. Quantity, measurement of quality parameters, requirements and Quality Accounting Rules

3.1.3.1. Metering infrastructure on the interconnected natural gas system

a) In order to measure the quantity and quality of natural gas transmitted on the interconnected natural gas system, the network operators shall operate quantity-measuring equipment while the transmission system operator, unless otherwise agreed, shall operate quality control equipment.
b) The natural gas quantity-measuring and quality control equipment shall at all times comply with the relevant Hungarian measurement standards and specifications.
c) Natural gas quality control measurements shall be divided among system operators in a manner to ensure that the appropriate verification of the parameters of natural gas quality complying with the requirements laid down in paragraph 3.1.3.2 a) of the Code shall be ensured at each delivery point. Measurement frequency shall be determined by the system operator performing the measurement, on the basis of the MSZ 10715 standard. Subject to a separate agreement between the delivering and off-taking parties, measurement may be waived in the case of those parameters where retraceability is ensured, i.e. no change in the parameters during natural gas transmission or storage can occur.
d) Only measuring instruments checked by MKEH or against a usage benchmark can be used for settlement measurement.

3.1.3.2. Natural gas quality specifications

a) The quality of natural gas shall be satisfactory if it meets at least the specifications of Implementation Decree[29]. The neighbouring transmission system operators may also agree on different values in respect of certain gas quality parameters within the range of quality limits and on gas quality parameters not included in the Implementation Decree[30] for a particular border crossing (interconnection) entry-exit point.
b) The transmission system operator shall maintain the gas quality conditions in respect of existing production entry points as set out in the interconnection agreement between the transmission system operator and the producer.
c) If the conditions set out in paragraph (a) are met, then at a new entry point which, due to its geographical location or hydraulic conditions, may significantly affect the quality parameters agreed at the border crossing (interconnection) entry-exit point agreed by the relevant transmission system operators, the natural gas producer may only supply the natural gas transmission system with natural gas of the quality specified by the transmission system operator in accordance with the agreement between the neighbouring transmission system operators.
d) The distribution system operator may operate its own metering equipment to check natural gas quality parameters.

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e) The transmission system operator shall act in accordance with the requirements of EU Regulation 2015/703 regarding short-term gas quality monitoring at network interconnection points.
f) In addition to the provisions of paragraph e), the transmission system operator shall provide information to the following partners on short-term changes in gas quality, taking into account the requirements laid down in EU Regulation 2015/703:

   i. directly connected consumers or network users supplying them, whose operational processes are adversely affected by changes in the quality of natural gas,
   ii. storage system operator licensees whose operational processes are adversely affected by changes in the quality of natural gas.

g) At the request of other partners, the transmission system operator shall examine the feasibility of fulfilling the request for information individually within 30 days.

3.1.3.3. Specifying and measuring the quality parameters and energy content of natural gas

a) With regard to quality measurements performed by the transmission system operator, the quality parameters of natural gas shall mean the following characteristics:

   i. concentration of its components (methane, ethane, propane, n-butane, i-butane, n-pentane, i-pentane, neopentane, hexane and heavier hydrocarbons, carbon dioxide, nitrogen, etc.) mol%;
   ii. relative density - (15 °C and 0 °C);
   iii. net calorific value (calorific value) by default kWh/m^3 (25/0 ° C), optionally MJ/m^3 (15/15 °C);
   iv. gross calorific value (GCV) by default kWh/m^3 (25/0 °C), optionally MJ/m^3 (15/15 °C);
   v. Wobbe index for kWh/m^3 (25/0 ° C) and MJ/m^3 (15/15 °C) for the gross calorific value.

b) The composition shall be measured with the use of online field mounted gas chromatographs and the checks shall be performed by accredited laboratories on natural gas samples taken on the spot.
c) The calculation of the relative density and calorific values from the natural gas composition shall be performed in accordance with the “MSZ ISO 6976 Natural gas — Calculation of calorific values, density, relative density and Wobbe indices from composition” standard.
d) The hourly assignment of gas delivery stations to the quality data generated in the on-site gas chromatographs required for calculating the daily weighted average quality values shall be performed by the transmission system operator on the basis of a hydraulic simulation. The daily weighted average quality values shall be determined by the OTR system on the basis of the hourly settlement point quantities and the hourly average sample data of the chromatograph affected by the hourly assignments. The daily weighted quality parameters created in accordance with this procedure shall be used primarily in the daily settlement.

e) Hourly and daily average values of natural gas quality parameters shall be created in the chromatographs installed on the gas grid.
f) If no daily weighted quality parameters can be determined as described in paragraph (d), the 24-hour average value generated in accordance with paragraph (e) shall be used for settlement.
g) The energy content of natural gas in the natural gas transmission system for the daily settlement period shall be defined as the product of volume at 0 °C derived from the given hourly normal volumes multiplied by the hourly average gross calorific value in kWh at 25/0 °C reference temperature in accordance with paragraph 3.1.3.3 d) of the Code, by summing the amount of energy for 24 hours rounded to the nearest integer in accordance with rounding rules.
h) If the technical conditions exist, the energy content of natural gas shall be determined for the daily settlement period as the product of the measured 0 °C flow rate multiplied by the measured 25/0 °C gross calorific value, by means of integrating the energy flow generated in the flow computers. In such a case, the daily energy content shall be the value of the previous day's energy counter read from the flow computer after the closing of the gas day.
i) The energy content of natural gas in the natural gas distribution system for the daily settlement period shall be defined by applying a ratio defined as the quotient of the product of the volume at 15 °C multiplied by the daily average gross calorific value in MJ at 15/15 °C reference temperature divided by the product of volume at 0 °C derived from the given hourly normal volumes multiplied by the hourly average gross calorific value in kWh as the total amount of energy delivered daily at the gas delivery station at 25/0 °C reference temperature, rounded to the nearest integer in accordance with rounding rules. The ratio shall be applied as calculated to seven decimal places.
j) For any period exceeding one day, the energy content of natural gas in said period shall be defined as the sum of the amounts of energy calculated on the days of that period.
k) Each system operator shall certify the quantity and quality of natural gas at the entry and exit points of its own system.

3.1.3.4. Relationship between quality parameters and the measurement of quantity

a) The defined quality parameters shall serve as baseline data:

   i. in the algorithm serving to calculate the natural gas quantity (for calculating the operating density in an orifice plate flow metering system and the imbalance factor in an orifice plate, ultrasound and turbine flow metering system);
   ii. for calculating the energy content of natural gas.

b) In the primary settlement system, the daily energy content of natural gas per entry point shall be determined daily by multiplying the volume of gas having a temperature of 0 °C at a pressure of 101,325 formed from the volume of gas delivered and taken over on the given day and measured at a pressure of 101,325 Pa and a temperature of 15 °C by the daily average gross calorific value. At the exit points, it shall be determined by formulating the daily sum of energy contents by multiplying the volume of gas having a temperature of 0 °C at a pressure of 101,325 formed from the volume of gas delivered

in the given hour and measured at a pressure of 101,325 Pa and a temperature of 15 °C by the hourly average gross calorific value.

c) If the daily weighted gross calorific value cannot be specified, the energy content of natural gas shall be determined by multiplying the volume of gas having a temperature of 0 °C at a pressure of 101,325 formed from the volume of gas delivered and taken over on the given day and measured at a pressure of 101,325 Pa and a temperature of 15 °C by the daily average gross calorific value.
d) The total quantity of heat interpreted for any period shall be the sum of the gas-day quantities of heat of the given period.
e) The daily quantity of heat of any merged gas delivery station shall be calculated by summing the quantities of heat of the merged individual gas delivery stations on that day.

3.1.3.5. Calculation of the daily gross calorific value when settlingthe consumption of users supplied from merged exit points

a) If the deviation of the gross calorific value published by the transmission system operator for any of the exit points merged in the Quality Accounting Rules from the gross calorific value published in the Quality Accounting Rules for the merged network point does not exceed 5%, the daily and monthly energy content in respect of users supplied from the exit points shall be calculated with the use of the gross calorific value published daily by the transmission system operator for the merged network point.
b) If the deviation of the gross calorific value published by the transmission system operator for any of the exit points merged in the Quality Accounting Rules from the gross calorific value published for the gas delivery station merged in the Quality Accounting Rules exceeds ±5%, users served from the exit points shall be assigned either to the merged exit point or to one of the physical exit points in accordance with the following procedure:

    i. If the natural gas distribution systems supplied from the physical exit points have been interconnected and it is clear from the monthly consumption data between the interconnection and the exit points that after the interconnection point mixed gas flows through the natural gas distribution system (the difference of the monthly gas volume from the two exit points is less than 20% at the connection point), then the gross calorific values shall be taken into account on the natural gas distribution system between the interconnection point and the exit points. With regard to the gas flow, in the case of users after the location of interconnection, average gross calorific values weighted with the daily quantities at the exit points concerned shall be used for charging users.
    ii. If on the basis of the monthly gas consumption figures of natural gas distribution systems with physical exit points it is possible to identify a group of users (natural gas distribution area) that is certain to be supplied from the physical exit point, the distribution system operator shall, on the basis of the network structure and monthly consumption of users, determine the group of users (natural gas distribution area) which has a higher than 50% probability to be served exclusively from the given physical exit point.
    iii. The probability referred to in paragraph i shall be defined as the ratio of the monthly gas quantity fed into the natural gas distribution system from each

physical exit point to the monthly off-take by users consuming gas directly from the neighbouring natural gas distribution system (taking into account the typical direction of gas flow from the exit point).

iv. If one or more exit points in the merge are temporarily shut down by the transmission system operator in consultation with the distribution system operator, the users assigned to the exit point shut down in accordance with Point iii shall be accounted for with the weighted average gross calorific value of the merged exit point.

v. For each gas year, the distribution system operator shall publish on its website the assignment of the user group defined in this way to the individual or merged exit point based on the data of the previous gas year.

vi. With profile users, monthly consumption levels shall be determined on the basis of the profile and, with remotely read users, on the basis of measurements.

3.1.3.6. Quality Accounting Rules for transmission system entry and exit points

a) The transmission system operator shall publish in the Quality Accounting Rules the averages for the entry and exit points of the transmission system calculated on the basis of the gross calorific value weighted with daily gas volumes transmitted at each point and, for information purposes, the minimum and maximum gross calorific values occurring in the year preceding the gas year, as well as, again for information purposes, the averages calculated on the basis of gross calorific value weighted with daily gas volumes. The corresponding natural gas quality is a recommendation to traders and users for the calculation of the gross calorific value fixed in the contract or for any volume and energy content calculation related to a given entry or exit point. Daily quality and composition data shall be considered as volume-based averages of the merged gas delivery station.

b) The Quality Accounting Rules regulates which chromatographic samples can be assigned to each network point and regulates the order of substitution of chromatographic samples depending on the conveyance procedure.

c) The Quality Accounting Rules shall contain:

i. the transmission directions and sample code of the chromatographs;

ii. the natural gas group and neighbouring network operator of each network point;

iii. the annual weighted average gross calorific value, which is the annual average of the daily average gross calorific values weighted by daily quantities and is determined for each network point. The annual weighted average gross calorific value shall be calculated by the transmission system operator for the period from 01 January to 31 December of the previous year;

iv. for information purposes, the annual minimum and maximum combustion heat values and the average calorific values weighted with daily gas volumes for the period from 01 January to 31 December of the previous year;

v. the application of odourisation levels different from the odourisation standard at exit points;

vi. a detailed methodology of calculating combustion heat and calorific value-based energy for allocation purposes;

vii. the replacement values of gas components, relative density, nitrogen content and carbon dioxide content valid for the given gas year for calculating the amount of gas technological normal gas in the flow computers, calculated for the period from 01 January to 31 December of the previous year.

d) The transmission system operator shall be responsible for the preparation and annual review of the Quality Accounting Rules. Their validity shall apply to a specific gas year. They shall be published on the transmission system operator's website by no later than 15 February each year and shall enter into force on the first day of the gas year.
e) The transmission system operator shall update the Quality Accounting Rules and publish them on its website prior to the commissioning of a new entry or exit point or a new chromatograph, besides notifying the relevant neighbouring network operators.

3.1.4. Metering report and inspection slip

a) After the settlement period, the transmission system operator and the neighbouring network operator shall prepare a report on the quantity and quality of unallocated natural gas physically delivered or taken over at the given exit point. The report shall contain the quantity summated for the last day of the settlement period and expressed in volume and energy amount as well.
b) The amount of energy is established each day, therefore the monthly energy amount is the sum of the energy amounts calculated on the days of the given period.
c) The transmission system operator shall certify to the neighbouring network operator in an attached report the volume of the natural gas delivered and taken over each day (in volume and in energy amount as well), the quality and composition data and compliance with the specifications set out in the Implementation Decree[31].
d) The transmission system operator shall prepare and send the signed report to the neighbouring network operator once a month by the 5th business day of the month following the subject month.

3.1.5. Procedure if off-spec natural gas is injected

a) The quality of natural gas fed at the newly established entry point of the transmission system shall be compliant if it fulfils the specifications set forth in paragraph 3.1.3.2 of the Code and the combustion heat of the natural gas fed does not deviate by more than ± 5% from the average combustion heat published in the Quality Accounting Rules for that exit point to which natural gas is most likely to be transported based on hydraulic analysis performed by the transmission system operator.
b) If the combustion heat of natural gas injected by the natural gas producer changes in excess of ± 5% compared to the average combustion heat of natural gas in the gas year preceding the injection in accordance with the relevant provisions of the Implementation Decree[32], the transmission system operator shall request the producer in writing - and shall send the same information to the network users concerned - to cease such non-compliance.
c) If the feed-in or injection to storage of off-spec natural gas at the interconnected natural gas system is expected to cause a technical problem or fails to meet the quality

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[32] Section 66/A of the Implementation Decree

parameters specified in the contract, the transmission system operator or storage system operator licensee may refuse to take over the network user's poor-quality gas

3.1.5.1. Rights and obligations of the transmission system operator at the entry-exit points of the transmission system

a) If the quality of natural gas delivered at the exit point of the natural gas transmission system fails to comply with paragraph 3.1.3.2 of the Code or the delivered gas has caused any damage, the transmission system operator shall, by means of its hydraulic simulation system, identify the entry points from which off-spec natural gas was injected, together with the extent and date of injection.
b) Based on the hydraulic simulation, at the entry point where off-spec natural was fed in, liability for any damage arising therefrom shall be borne by the network users thus identified, in proportion to the gas amount fed in by them. This rule shall also apply to fully and partially isolated systems.

3.1.6. Measurement of the volume of natural gas

3.1.6.1. Measurement on the natural gas transmission system

a) The transmission system operator shall operate metering devices to measure natural gas received and delivered for natural gas transmission and to calculate its own gas use.
b) Natural gas volumes shall be measured with the use of the equipment described in Annex III to the Code and in the manner defined in this point.
c) The measuring system shall be capable of supplying hourly and daily measuring data and storing them for at least 50 days.
d) Types of measurement:

    i. external settlement measurements (takeover and delivery measurements) - measurement of natural gas taken over from or delivered to an external organization;
    ii. internal settlement measurements - measurement of natural gas used for own purposes within the transmission system operator's pipeline system or for monitoring the movement of natural gas.

e) Settlement with network users and neighbouring network operators shall be based on external settlement measurement.

3.1.6.2. Measurement at entry points

a) The transmission system operator shall operate its own metering devices capable of measuring the quantity, pressure, temperature, composition and quality features of the natural gas taken over at the entry points for natural gas transmission.

3.1.6.3. Measurement at the exit point

a) The transmission system operator shall operate metering devices capable of measuring the volume, pressure and temperature of natural gas delivered at the exit points of the natural gas transmission system.
b) The gas quality features shall be determined by the transmission system operator in accordance with Quality Accounting Rules.
c) The neighbouring network operator shall be entitled to take the archived data from the flow computer operated by the transmission system operator at the natural gas pipeline's exit point on its own data carrier of a type agreed with the transmission system operator for the purpose of data verification.

3.1.6.4. Frequency of collection of measurement data on the natural gas transmission system

a) At the transmission system's entry and exit points, the measurement data shall be read with the use the transmission system operator's telemechanic system.
b) After the closing of the gas month, by no later than the 5th business day of the month following the gas month, the transmission system operator, the relevant network user or their official representatives shall perform on-site memory read at the natural gas pipeline's entry and exit points.

3.1.6.5. Measurement on the natural gas distribution system

3.1.6.5.1. Measurement at entry points

a) The distribution system operator shall take over from the transmission system operator the quantity of natural gas transported through the transmission line for natural gas distribution purposes at the gas delivery station's exit point.
b) The quantity of gas taken over by the distribution system operator shall be measured at the gas delivery station with the use of a metering system operated by the transmission system operator.
c) The transmission system operator shall operate metering devices capable of measuring the volume, pressure and temperature of natural gas at the transmission system's exit point (which is identical with the distribution network's entry point).
d) The transmission system operator shall provide the daily gas quality data at the transmission system's exit point and certify the quality of the natural gas to the neighbouring network operator.
e) The distribution system operator shall be entitled to build or operate a control metering system on its own system.

3.1.6.5.2. Measurement at exit points

a) Distribution system operators use volume metering systems to perform settlement measurement of natural gas volumes.
b) Settlement volume metering systems shall be operated by the distribution system operators in accordance with their business codes and shall verify, or arrange for the verification of, these systems at specific intervals. Verification results shall be made available to all parties affected by the measurement.
c) Among settlement volume meters, rotary and turbine gas meters shall be governed by the requirements listed in Annex III to the present Code. For plate (diaphragm) gas meters, the requirements of MKEH HE 2/1-2006 shall apply.
d) The distribution system operator shall install on the gas meters equipment suitable for remote data transmission, in accordance with the provisions of the Gas Supply Act.
e) If the user does not have a metering system suitable for remote data transmission, its daily consumption shall be calculated with the use of the uniform national profile-based settlement system.
f) If the distribution system operator is not or only partially able to install on the gas meters equipment suitable for remote data transmission in accordance with the provisions of the Gas Supply Act, it shall read, or arrange for the reading of, measurement data on-site on a daily basis.
g) Metering data of users taking off gas at the distribution network's exit points shall be collected and aggregated with the use of the distribution system operator's IT system or by means of on-site reading at intervals determined by the distribution system operator as follows:

    i. By sending hourly and daily data on the basis of the data supply requirements set forth in paragraph 2.6 of the Code at the points of delivery (POD) equipped with consumption metering equipment suitable for remote data transmission;
    ii. By meter reading on the day in accordance with the distribution system operator's reading schedule in the month following the subject month in the case of PODs with consumption metering equipment of a nominal total capacity exceeding 20 m^3/hour (in case of PODs equipped with consumption metering equipment not suitable for remote data transmission or in case of PODs with consumption metering equipment suitable for remote data transmission if no data suited for settlement are available);
    iii. For PODs with consumption metering equipment of a nominal total capacity of 20 m^3/h or less, settlement shall take place by way of actual reading on at least one occasion per year. The distribution system operator shall notify the trader in advance of the date of reading.

3.1.6.6. Measurement on the storage system

a) The quantity and quality of natural gas arriving from the natural gas pipeline to the storage system operator licensee or delivered to the transmission system operator's pipeline through the 'zero' points of the underground gas storages' natural gas pipelines shall be measured by the transmission system operator. The interconnection agreement between the storage system operator licensee and the transmission system operator shall contain the storage system operator licensee's quality measurement

tasks. Natural gas quality measurements performed or commissioned by the system operators shall ensure verifiability by network users of natural gas quality parameters' compliance with standards fulfilling the specifications set out in the Implementation Decree[33].

b) In case of underground storages where the natural gas producer is directly connected to the underground storage's technological system, the operation of interface measurements is required. Measurements shall be performed by either the storage system operator licensee or the natural gas producer, depending on the local technical conditions, economic rationality and the agreement between the parties. The division of measurements shall be laid down in the interconnection agreement concluded between the producer and the storage system operator licensee. Natural gas quality measurements shall ensure verifiability by network users of natural gas quality parameters' compliance with standards fulfilling the specifications set out in the Implementation Decree[34].
c) The determination of the sampling locations and frequency of laboratory measurements supplementing the data of the electronic gas quality metering system - in the area of the underground storage - shall fall within the competence of the storage system operator licensee.
d) In addition to the foregoing, the storage system operator licensee shall measure and record all components of the gas flow that are necessary for establishing the complete gas traffic balance of the underground storages and for the complete control of the quality of injected and withdrawn gas.
e) In case of withdrawal at the 'zero' point of the natural gas pipeline, the storage system operator licensee shall issue an inspection slip on the quality of natural gas withdrawn from the underground storages (i.e. make a declaration of compliance of natural gas with quality specifications set out in the Implementation Decree[35]) and hand over the same as part of the report to the network user and the transmission system operator.
f) In case of injection to storage at the 'zero' point of the natural gas pipeline - for and on behalf of the network user -, the transmission system operator shall measure gas quality and shall issue an inspection slip on the quality of natural gas injected to the underground storage (i.e. make a declaration of compliance of natural gas with quality specifications set out in the Implementation Decree[36] in respect of the measured parameters) and hand over the same as part of the report to the network user and the storage system operator licensee.
g) In case of withdrawal at the production delivery point, the storage system operator shall issue an inspection slip on the quality of natural gas withdrawn from underground storages (i.e. make a declaration of compliance of natural gas with quality specifications set out in the Implementation Decree[37]) and hand over the same as part of the report to the network user.
h) In case of injection to storage at the at the production delivery point - for and on behalf of the network user -, the producer shall issue an inspection slip on the quality of natural gas injected to storage (i.e. make a declaration of compliance of natural gas with quality

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specifications set out in the Implementation Decree[38]) and hand over the same as part of the report to the network user and the storage system operator licensee.

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3.1.6.6.1. Frequency of collection of measurement data on the natural gas storage system

a) If the quantity is measured at gas pipeline 'zero' points connected to underground gas storages, the transmission system operator shall transmit quantitative data to the storage system operator licensee electronically on an hourly basis. The transmission system operator shall provide a higher frequency than that subject to a separate agreement between the parties. The transmission system operator shall provide the monthly 'zero' point traffic data considered as settlement data to the storage system operator licensee in a report following the on-site reading performed once a month.
b) In case of quality measurements at gas pipeline 'zero' points connected to the underground gas storage, the transmission system operator shall transfer to the storage system operator licensee the 24-hour arithmetic average of basic quality data (CH composition, calorific value, combustion heat, Wobbe index, relative density, CO_2, and NO_2 content) electronically, on a daily basis. The transmission system operator shall provide a higher frequency than that subject to a separate agreement between the parties.
c) The storage system operator licensee shall transfer the results of measurements performed by it under the interconnection agreement to the transmission system operator in accordance with the frequency of the measurement.
d) The transmission system operator and the storage system operator licensee shall, for the natural gas quality parameters complying with the specifications of the Implementation Decree[39], ensure the frequency of measurements for all natural gas pipeline 'zero' points affecting underground storages, in accordance with the MSZ 10715 standard.
e) The natural gas producer and the storage system operator licensee shall, for the natural gas quality parameters complying with the specifications of the Implementation Decree[40], ensure the frequency of measurements for all direct production delivery points affecting underground storages, in accordance with the MSZ 10715 standard.
f) The storage system operator licensee shall agree with the neighbouring network operator on the settlement measurement of natural gas at (or referenced to) the delivery point and the transfer of the measured data to another party, which agreement shall be set out in the interconnection agreement between the parties.
g) The measurements shall ensure the accurate determination of the quantity and quality of the natural gas delivered and taken over.
h) Quantitative and qualitative measurements performed by the storage system operator licensee during the injection and withdrawal of natural gas, provided that they qualify as settlement measurements or measurements proving the quality of natural gas, shall fulfil the same requirements as quantitative and qualitative measurements applied by the transmission system operator on the natural gas pipeline in accordance with the present Code.
i) During the injection period, it shall be the transmission system operator's obligation to ensure the measurement of natural gas quality parameters complying with the specifications of the Implementation Decree[41] at transmission system exit points and

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transfer measurement results to the neighbouring network operator and to network users with capacity booking within the scope of daily data supply. System operators may provide otherwise in the interconnection agreement, on the basis of Points d) and e).

j) During the withdrawal period, it shall be the storage system operator licensee's obligation to ensure the measurement of natural gas quality parameters complying with the specifications of the Implementation Decree[42] at transmission system entry points and transfer measurement results to the neighbouring network operator and to the network users at the intervals stipulated in the interconnection agreement and, respectively, on a daily basis. System operators may provide otherwise in the interconnection agreement, on the basis of Points d) and e).

k) At those underground gas storage delivery points where the producer directly transfers natural gas it produces to the storage system operator licensee for injection to storage, the quantity and quality of the transferred natural gas shall be measured on the basis of the interconnection agreement concluded between the producer and the storage system operator licensee.

3.1.6.7. Calibration and inspection of measuring equipment

a) It shall be the system operator's obligation to ensure the ongoing operation of the quantity and quality measuring equipment installed on the natural gas network and to document its measurement accuracy.

b) Only calibrated measuring equipment (verified against a usage benchmark) shall be used to carry out measurement. The accuracy of the measuring equipment shall be verified by an organization accredited for this activity. If there is no accredited organization to calibrate the given measuring instrument, the calibration shall be performed by another organization proficient at calibrating the given measuring instrument.

c) Network users or their authorized representatives with valid capacity booking or the neighbouring network operator may at any time request in writing the system operator responsible for measurement to perform extraordinary verification of the metering equipment involved in capacity booking. Upon request, the system operator responsible for measurement shall initiate the on-site review of the metering equipment upon notification of the party requesting the review, within one week of receipt of the request. If the review confirms compliance of the accuracy of the measuring equipment with the relevant Hungarian standards and requirement for measurements, the cost of the review shall be borne by the party requesting the review. Otherwise, the cost of the review shall be borne by the system operator responsible for measurement.

d) The network user or its agent with valid capacity booking on the given system or the neighbouring network operator shall be entitled to attend the calibration and review of the measuring equipment. To this end, the system operator responsible for measurement shall notify the parties concerned of the date of review or calibration in due time. However, the review, calibration and setting shall be performed by the transmission system operator or an organization assigned by it.

e) The network user affected by the measurement and having valid capacity booking or the neighbouring network operator shall be entitled to request that the system operator

[42] Annex 11

responsible for measurement shall send a report on the results of the calibration and review thereafter. The results recorded in the report signed by the organisation assigned to carry out calibration shall be binding on all parties involved.

3.1.6.8. Failure of the measuring equipment

a) If a measuring instrument or any of its components becomes inaccurate or a failure or an interruption in the transmission of measurement data occurs, the system operator responsible for measurement shall immediately make arrangements for the repair or replacement of the inaccurate or defective measuring instrument to be commenced and for the transmission of measurement data to be restored.
b) Pending elimination of the fault of the measuring equipment or data transmission, the system operator shall carry out settlement with the neighbouring network operator in accordance with paragraph 2.5.7 of the Code.

3.1.6.9. Managing measurement errors

a) As long as the measuring equipment is in a defective state, the quantity of natural gas delivered/taken over shall be determined by one of the following methods, as agreed between the parties concerned:

    i. corrected to zero errors, in view of the error specified during the calibration and inspection of the faulty metering equipment;
    ii. based on the natural gas quantity measured in a period similar to the period concerned when the measuring equipment was operating without any defects;
    iii. based on another piece of measuring equipment operating independently of the faulty measuring equipment and measuring an identical gas flow, if such equipment is available.

b) If the duration of erroneous measurement is unknown, then the entire time passed since the last settlement period closed with a report shall be considered as the duration of erroneous measurement.
c) The detailed method of managing measurement errors is set out in the interconnection agreements and the network usage contracts.

3.1.7. Operational requirements

3.1.7.1. Ensuring production pressures

Producers shall supply the neighbouring network at the current operating pressure, up to the level of the permitted pressure of the neighbouring network, whose value shall be specified in the interconnection agreement for each entry point.

3.1.7.2. Detailed rules applying to the transmission system operator

3.1.7.2.1. Operational conditions of the transmission system

a) Telemonitoring of the entire natural gas transmission system in place.
b) Ongoing, 24-hour-a-day functioning of the telemonitoring system.

c) Continuous on-call system in place.
d) Use of a maintenance system that ensures prevention of failures, malfunctions and provides the proper technical conditions and safe operation of the system.
e) Periodic inspection of equipment and instruments of the system. Rapid troubleshooting capability.
f) Machinery, equipment, materials, spare parts, qualified personnel suitable for the elimination of failures and malfunctions and technical instructions, or supplier contracts ensure all this, shall be in place.
g) Maintaining a system for managing, recording and subsequent analysing extraordinary events, failures and malfunctions occurring on the transmission system.
h) During the operation of the transmission system, the transmission system operator shall take into account and comply with the provisions of the Gas Supply Act, the Implementation Decree and related decrees, the Code, the Mining Act and related ministerial decrees, as well as all other safety and environmental protection etc. legislation/regulations related to its activities.
i) The transmission system operator shall provide the following technical conditions necessary for operating the system:

    i. It shall takes care of the operational safety and maintenance of the transmission system on an ongoing basis. To this end, it shall be entitled to carry out maintenance, reconstruction and development work on the transmission line, its accessories and components in accordance with the relevant provisions of the Implementation Decree[43], provided that shutdowns have been announced in advance.
    ii. The possibility of applying specific technical procedures to avoid shutdowns is laid down in paragraph 3.1.10.2 a) of the Code.
    iii. To this end, it shall have a maintenance system coordinated with its quality management system.
    iv. It shall have an on-call emergency service in place to deal with malfunctions. In the event of a malfunction, it shall immediately take all measures necessary for maintain its ability to fulfil its contractual obligations and rectifying the failure.
    v. It shall have a reliable measuring system with the accuracy specified in the present Annex III to the Code (gas volume, gas quality, pressure, temperature) that provides the necessary parameters for each entry/exit point.
    vi. The transmission system operator or the natural gas pipeline operator shall coordinate its maintenance, reconstruction and development tasks involving planned outages or temporary reduction of natural gas pipeline capacities with the neighbouring network operators.

[43] Section 94 (1) of the Implementation Decree

3.1.7.2.2. Elimination of malfunctions on the transmission system

a) The transmission system operator shall provide on-call service in accordance with the relevant provision of the Gas Supply Act[44] for the immediate elimination of any malfunctions on transmission system.
b) To this end, it shall:

   i. maintain e a 24-hour dispatching service;
   ii. operate an on-call service suitable to eliminate emergencies;
   iii. keep records suitable for documenting and evaluating malfunctions.

c) Upon detection of a malfunction, the transmission system operator's dispatching service shall delimit its extent and its expected impact on the system.
d) The on-call service shall commence the elimination of the emergency without delay. The transmission system operator shall be entitled to engage contractors to carry out individual phases of malfunction elimination.
e) The transmission system operator shall immediately and continuously inform the designated transmission system operator about the malfunction and its impact on the system, as well as about progress in the process of putting an end to the malfunction.
f) In the event of malfunctions, the transmission system operator shall not be obliged to pay surcharges and repay capacity fees for reasons beyond its control. If the malfunction affects a directly connected consumer, producer or neighbouring network operator and there is a risk that off-take by the user may be reduced, the transmission system operator shall notify the parties concerned in the manner regulated in the applicable interconnection agreements.
g) If off-take by the user drops during malfunction elimination, the applicable Restriction Order shall apply.
h) After a restriction has been ordered, the transmission system operator shall be entitled to make a re-nomination proposal to the network users in order to maintain system balance. Pursuant to paragraph 2.2.3 of the Code, network users shall be entitled to use the option of re-nomination.
i) In case of a regional restriction, some of the users connected to the system concerned may be supplied, in which case the following actions shall be taken:

   i. an interruption may be ordered in the area affected by the malfunction;
   ii. a restriction may be ordered if certain users can be supplied in the case of restrictions on users in lower restriction categories. In this case, paragraph 4.3 of the Code shall apply.

j) The designated transmission system operator shall send a report to the Authority within 8 days from the lifting of the restriction, in accordance with the relevant provisions[45] of the Gas Supply Act.

3.1.7.3. Detailed rules applying to the distribution system operator

[44] Section 96 (12) of the Gas Supply Act
[45] Section 96 (7) of the Gas Supply Act

3.1.7.3.1. Operating conditions of the natural gas distribution system

a) The distribution system operator shall ensure the following conditions during operation:

   i. It shall ensure the operational safety and maintenance of the natural gas distribution system, for which purpose it shall be entitled to have a planned outage not exceeding 48 hours per gas delivery station, no more frequently than 1 occasion per year, in coordination with a shutdown related to annual maintenance, reconstruction and development works on the natural gas pipeline, and an unplanned outage not exceeding 24 hours per gas delivery station, no more frequently than 1 occasion per year, in the case of maintenance works on the natural gas distribution system causing an unplanned outage.
   ii. Following maintenance on the natural gas distribution system performed concurrently with maintenance, reconstruction and development works on the natural gas pipeline, the distribution system operator shall restart and restore the service on the natural gas distribution system within 8 hours.
   iii. It shall operate a quality assurance system for the performance of network operation and maintenance tasks.
   iv. It shall have adequate technical equipment and an on-call service to address malfunctions. In the event of a malfunction, it shall take all measures as necessary to maintain its ability to fulfil contractual obligations and address the malfunction in a professional manner.
   v. It shall ensure the operational availability of measurements at the exit points of the natural gas distribution system.
   vi. The distribution system operators and the natural gas distribution pipeline operators shall coordinate their maintenance works with neighbouring network operators.
   vii. At the network user’s request, it shall make a supply proposal to those network users wishing to off-take gas during the gas outage who also request the supply of natural gas during this period and undertake the additional costs of setting up a provisional system necessary to ensure supply.

3.1.7.3.2. Elimination of malfunctions on the natural gas distribution system

a) The distribution system operator shall have in place an on-call service suitable to immediately eliminate malfunctions occurring on the natural gas distribution system.
b) To this end, it shall maintain a 24-hour dispatching service and operate an on-call service capable of eliminating emergencies. It shall keep records suitable for documenting and evaluating malfunctions.
c) The distribution system operator shall regulate in its business code:

   i. the organizational structure of the on-call service;
   ii. the method to receive calls and keep records of reported or detected malfunctions;
   iii. the actions to be taken during the procedure;
   iv. the procedure of notifying the licensee involved in the supply of users;
   v. the mode of notifying users.

d) The on-call service shall commence the elimination of the emergency without delay. The distribution system operator shall be entitled to engage contractors to carry out individual phases of malfunction elimination. Degassing and gasification works may only be carried out by the distribution system operator.
e) The distribution system operator shall immediately and continuously inform the designated transmission system operator about the malfunction and its impact on the system, as well as about progress in the process of putting an end to the malfunction.
f) If off-take by the user drops during the elimination of malfunction, the applicable Restriction Order shall apply.
g) The contract between the natural gas trader and the capacity-charge user shall stipulate cooperation between the distribution system operator and the capacity-charge user in the event of a malfunction.
h) The contract on network usage between the distribution system operator and the network user shall stipulate cooperation in the event of a malfunction.
i) If the user is connected to the natural gas distribution system through a dedicated pipeline, the distribution system operator and the registered user shall enter into an interconnection agreement regarding the actions to be taken in the event of a malfunction and crisis situation.

3.1.7.4. Detailed rules applicable to underground storages

3.1.7.4.1. Operating conditions of the natural gas storage system

a) In respect of its activities, the storage system operator licensee shall:

   i. operate, and ensure supervision of, measuring and data transmission equipment;
   ii. direct maintenance and malfunction elimination operations;
   iii. operate a technical management service.

b) Due to the technical characteristics of underground storages, injection and withdrawal is possible only if the quantity of daily nominations reaches or exceeds the minimum daily natural gas injection and withdrawal flows published by the storage system operator licensee. Therefore, the storage system operator licensee shall only accept nomination from the network user if the total quantity nominated for the given gas day is at least equal to the minimum quantity required for performing injection and withdrawal tasks.
c) The periods of withdrawal and injection of certain underground gas storages as specified in the licensee's operating license may overlap temporarily for a short period of time if it is necessary for the purpose of supply.
d) A maintenance (changeover) break shall always be required between the injection and withdrawal periods. Their expected duration shall be published by the storage system operator licensee on its website for each underground gas storage and time period. A storage system operator licensee operating more than one underground gas storage shall also allow flexibility during transition between such periods and see to it that maintenance shall not be performed in all underground gas storages during the same period, i.e. the demand for withdrawal and injection shall be served almost continuously.

e) The amount of gas that can be injected to and withdrawn from the underground gas storage per a midst unit depends on the filling level of the underground gas storage and the gas pressure in the pipeline connected to the underground storage.
f) The storage system operator licensee shall continuously publish technical information on injection and withdrawal in the unified underground storage system on its website.
g) If the neighbouring network operator fails to ensure the contracted gas pressure at the natural gas entry/exit point, the storage system operator licensee shall not be liable for the non-contractual performance of injection to storage.

3.1.7.4.2. Replacement and monthly settlement of the storage system operator licensee's cushion gas

a) In view of the technical specificities of underground storages, natural gas storage activities may involve the forced generation of cushion gas and condensate accompanying working gas withdrawal in the withdrawal period. Due to forced extraction, the amount of cushion gas that helps the safe operation of underground storages will be reduced, which shall be constantly replenished. The amount of cushion gas generated during forced extraction can be determined by means of computation. The calculation method shall be laid down in the storage system operator licensee's business code.
b) The storage system operator licensee shall continuously replenish the extracted cushion gas. The selection of the network user - with whom the storage system operator licensee enters into a contract for the purchase of natural gas - shall take place through tendering, in a transparent manner and in accordance with the relevant provisions of the Implementation Decree[46]. The replenishment of the extracted cushion gas shall be settled between the storage system operator licensee and the network user on a monthly basis.

3.1.7.4.3. Elimination of malfunctions on the natural gas storage system

a) In the event of a malfunction on the natural gas storage system, the storage system operator licensee shall immediately notify the designated transmission system operator, the neighbouring network operator and the network user in writing. The method of notification shall be regulated by the interconnection agreements and natural gas storage contracts.
b) The storage system operator licensee shall immediately take measures to eliminate the malfunction and restore the natural gas storage service as soon as possible.
c) The licensee storing strategic natural gas shall develop an emergency procedure and chain of command to ensure increased supervision of operation in case of crises.

3.1.8. Odourisation

a) The odourisation of natural gas shall be the transmission system operator's obligation, unless, in the case of direct injection by the producer of natural gas into the transmission and distribution system, the producer enters into an agreement with the transmission system operator on the odourisation of the injected natural gas or shall take care of the odourisation itself.

[46] Section 82 of the Implementation Decree

b) The odourisation service on the transmission system shall be provided by the transmission system operator at the gas delivery station exit points of the transmission system, in accordance with the relevant standards and its business code.
c) The transmission system operator shall add the odorant with the use of central and individual odorising units.
d) The transmission system operator shall check and document the odorant quantity added per odorising unit. The neighbouring network operator connected to the transmission system shall check and document the odour level on its own system as described in the MSZ-09-74.0011 standard. The distribution system operator shall ensure that the odour level in the neighbouring distribution systems shall be monitored and, in case of non-compliance, feedback shall be provided from the transmission system operator. Distribution system operators shall check, document and archive for 5 years the suitability of the odour effect.
e) By measuring odour levels, the transmission system operator shall periodically check the suitability of odourisation at the entry-exit points designated on the transmission system's centrally odourised system.
f) If the transmission system operator suspects a persistent odourisation failure or significant over-odourisation caused by a technical failure, it shall immediately notify the dispatching service/representative of the neighbouring network operator.
g) The transmission system operator shall perform volume-based odourisation in accordance with the winter and summer odourisation norms, in the manner specified in its business code.
h) Due to the physical characteristics of the neighbouring network, the transmission system operator shall publish the amount of injected odorant other than that specified by the business code in the Quality Accounting Rules on its website.
i) The setting of an injection norm differing from that specified by the transmission system operator's business code shall be modified on the basis of odour level measurements and upon the specific and technologically reasonable request or initiative of the network user or the neighbouring network operator.
j) For the odourisation of natural gas, the network user shall be charged an odourisation fee in accordance with the Tariff Decree, subject to the conditions set out in the transmission system operator's business code.
k) In the event that there are several transmission system operators operating in the interconnected natural gas system, they shall align their odourisation systems under the coordination of the designated transmission system operator.
l) If the odourised gas is distributed to an underground storage, the additional odourisation norm applied to withdrawal shall be determined on the basis of individual measurements so that the combined odour level after additional odourisation meets the requirements set out in paragraph f).
m) The distribution system operator may operate its own metering device to check the odorant quantity.

3.1.9. Rules related to the telemechanic system

a) The Telemechanic System (TS) is the sum of transmitters located on natural gas transmission and distribution technology; intelligent on-site equipment (instruments) and communication devices and services handling/processing their signals; and the

SCADA system controlling all these. SCADA is a set of IT tools, programmes and databases designed to perform specific tasks.

b) Information retrieval means the retrieval (and possibly storage) of the data of the above data traffic as well as local signals displaying the operating states of telemechanics.
c) The task of the TS system is to provide the system operator with a fast, clear and in-depth overview of the monitored technology and to provide the system operator with the information and intervention options needed for decisions.

3.1.9.1. Telemonitoring system of the transmission system operator

a) The transmission system operator shall have a TS system operating on the natural gas pipeline, as well as staff and a technical background suitable for its continuous operation, which shall ensure:

   i. at least 99.97% availability of TS hardware and software and the data transmission system;
   ii. calculation in the case of field instrumentation and communication: (8760-T) / 8760, where T = number of hours lost;
   iii. for SCADA: T = the number of lost hours for business functions (data collection, interventions, data visualization) critical to system management is 2.6. Availability is not affected by the operating mode during which business functions are provided with the use of the backup devices of the SCADA system;
   iv. secure storage of data designated for long-term archiving for a period of 7 years.

3.1.9.2. Remote data transmission system of the distribution system operator

The distribution system operator shall ensure:

   i. the availability of data of the remote data transmission system;
   ii. the secure storage of the collected data for a period of at least 5 years.

3.1.9.3. Remote reading of users

a) Unless otherwise agreed, the distribution system operator shall be responsible for providing and installing, free of charge, consumption metering equipment, a telemechanic signal transmission system and a corrector, in line with the relevant provisions of the Gas Supply Act.[47]
b) Distribution system operators shall install and operate a metering remote reading system capable of transmitting, receiving and processing the hourly consumption data of meters equipped with remote transmission devices and located on their system, in accordance with the within-day and daily allocation schedule.
c) The remotely read metering equipment shall be capable of providing data required for hourly and daily allocation.
d) The distribution system operator shall allow users access to the metering data provided by the remote data transmission system.
e) If the user or the natural gas trader orders the installation of equipment that is more expensive than technically justified, the distribution system operator and the user

[47] Section 100/A (2)

concerned shall enter into an agreement and the distribution system operator shall be entitled to pass on the proven additional costs to the user.

f) The reliability of the remote reading equipment may be verified by that transmission system operator or distribution system operator to whose system the user is connected.

3.1.9.4. Requirements for the remote reading system

a) The distribution system operator shall characterize the operational safety of the remote reading system by defining an indicator for the availability of gas day quantitative data.
b) Availability shall indicate the percentage up to which daily measured quantitative data were available in a timely manner in the time period prior to inspection, based on all relevant data transmission and reception devices operating in the distribution system operator's user remote reading system.
c) Distribution system operators shall provide 97% of the availability indicator of user remote reading systems operating on the gas distribution system.
d) Calculation: Z-T / Z, where

   Z: The sum of the Zt values of 365 days prior to inspection.

   Zt: Number of remote data transmission devices relevant for settlement on the given gas day t.

   T: The sum of the Tt values of 365 days prior to inspection.

   Tt: Number of lost remote data transmission devices on the given gas day t. Any remote reading device for which the hourly data for the previous gas day are not available to perform the daily allocation shall qualify as a lost remote data transmission device.

e) The distribution system operator's annual availability indicators referred to in paragraph c) shall be updated and made available to the network users by the distribution system operators - in respect of the previous gas year - by the end of the first gas month of each gas year.
f) If no data are sent into the remote data transmission system, the distribution system operators shall use the following substitution procedure to fill the gaps in hourly measured data:

   i. In the event of measurement loss not exceeding 4 hours, the gas volume of the previous hour shall be taken into account.
   ii. In the event of a measurement loss exceeding 4 hours, the quantities shall be determined by taking into account the similar period of the previous day.
   iii. If the previous day is of a different nature (business day or non-business day), the data of the closest day with similar characteristics shall be applied.

g) The distribution system operator shall send hourly measurement data to the network users with the frequency and content specified in the Data Exchange Regulation set out in Annex IX to the Code.
h) If the meter or volume corrector provides measurement data not in normal cubic metre of gas, the following conversion procedure shall be applied when providing hourly measurement data to network users:

i. In the case of within-day data supply, conversion to normal cubic metre of gas shall take place in accordance with the business codes of distribution system operators. Parameters required to determine normal cubic metre:
   - temperature: forecasted by OMSZ for the given day
   - atmospheric pressure: the previous day's actual value provided by OMSZ,
   - metering pressure: overpressure of gas at the metering point.

ii. In the case of daily data supply, the quantity is determined on the basis of the available actual data. If no adjusted hourly consumption is available, the operating consumption shall be published.

i) The energy content shall be determined in accordance with the relevant data exchange rules.

i. Parameters required to determine kWh in the case of within-day data supply:
   - calorific value: on the basis of data supply according to Quality Accounting Rules,
   - ratio: calculated on the basis of data supply according to Quality Accounting Rules

ii. In the case of daily data supply, the quantity is determined on the basis of the available actual data.

3.1.10. Maintenance

3.1.10.1. Preparation of maintenance and shutdown schedule and coordination of maintenance works

a) Maintenance, reconstruction and development works on the interconnected natural gas system involving planned outages may be performed in the period between 15 April and 15 October, except in cases that cannot be scheduled in advance and cases specified by law. At the user's written request and in consultation with the system operator, works involving planned outages may also be performed at a different time, if the relevant system operator declares in writing on a date stipulated in the procedure that the change does not affect supply to other users or the date is accepted in writing by each user affected in a declaration addressed to the system operator concerned.

b) In accordance with the relevant provision[48] of the Implementation Decree, the annual maintenance and shutdown schedule shall be prepared in accordance with the following procedure:

i. Users supplied from the distribution system shall, by 1 December of the previous year, send their annual maintenance and shutdown schedule and recommendations for shutdown dates to the distribution system operator licensee through the network user supplying them;

ii. System operators, consumers directly connected to the transmission system or network users supplying them shall send their annual maintenance and shutdown schedule to the transmission system operator by 15 December of the previous year;

[48] Section 94 of the Implementation Decree

iii. In drawing up the plan, the transmission system operator shall take into account, where possible, the system operators' maintenance dates;
iv. The transmission system operator shall publish its annual maintenance and shutdown schedule on its website by 15 January;
v. The transmission system operator shall notify consumers directly connected to the transmission system and the distribution system operators shall notify the users supplied from the natural gas distribution system and the relevant licensees of the start date and end date of the planned outage and the necessary safety measures, in accordance with the provisions[49] of the Gas Supply Act.
vi. Based on the provisions[50] of the Gas Supply Act, notification in accordance with paragraph b) v of the start date of halting shall be given
- at least 3 months in advance in the case of scheduled preventive maintenance on the distribution network,
- at least 42 days in advance in the case of the transmission system operator's maintenance, renewal and development works,
- at least 15 days in advance in other cases

to the users and licensees concerned.

c) The transmission system operator shall publish the following information on scheduled preventive maintenance works involving reduction/suspension of natural gas transmission capacities:

i. job identification code;
ii. the code of the gas industry facility concerned;
iii. start date of the natural gas transmission capacity reduction/planned outage;
iv. end date of the natural gas transmission capacity reduction/planned outage;
v. the code of the relevant distribution system operator/consumer directly connected to the transmission system.

d) The distribution system operator shall upload the following data to the Information Platform of the transmission system operator by 15 January (for which the transmission system operator shall make available to the distribution system operator licensee concerned its maintenance and shutdown schedule prepared in accordance with paragraph c) and intended to be published on its Information Platform 5 business days prior to the deadline):

i. whether the maintenance, reconstruction and development work affects the user supplied from the distribution system operator's network;
ii. start date of user planned outage;
iii. end date of user planned outage;
iv. range of customers affected, settlements and users affected.

e) If the work to be performed by the transmission system operator on the basis of the data uploaded by the distribution system operator does not affect the supply of natural

[49] Section 78 (2) of the Gas Supply Act
[50] Section 78 (2) of the Gas Supply Act

gas to the users, it shall not qualify as maintenance involving a user planned outage described paragraph 3.1.7.2.1. i) i of the Code.

3.1.10.2. General rules for the maintenance and reconstruction of the natural gas system

a) If a network user wishes to enable the performance of maintenance, reconstruction and development without planned outages by using a specific technical solution (e.g. provisorium), he may do so in consultation with the system operator, but the additional cost of installing the solution shall be borne by the network user. Network users shall indicate their individual technical solution requirements in writing by 28 February and the transmission system operator shall inform the network user of its implementation options and costs and deadlines thereof within 60 days.
b) Maintenance, reconstruction and development operations that temporarily reduce the capacity of the transmission system shall, upon approval thereof, be published by the transmission system operator on its website.
c) The system operator shall inform the relevant network users about the neighbouring network operator's maintenance, reconstruction and development works immediately upon being notified thereof. The system operator shall not be liable for any temporary capacity reduction or service interruption resulting from these works. A network user who is adversely affected by a reduction in capacity may submit its compensation claim to the neighbouring network operator.
d) The system operator shall have the right to change the published shutdown dates but shall consult with the system operators concerned about the change and the new dates and inform the network users[51].
e) If the scheduled maintenance, reconstruction and development work lasting over 24 hours is completed earlier than planned and the neighbouring network operator has also confirmed the availability of the system affected by the operation, the system operator shall notify the network users of early completion and provides a renomination opportunity for the network users concerned.

3.1.10.3. Maintenance and reconstruction of the natural gas pipeline

a) The transmission system operator shall prepare an annual maintenance and shutdown schedule for the natural gas pipeline operated by it, taking into account the shutdown dates agreed in advance with the distribution system operators and neighbouring network operators, which shall include the following main elements:

   i. a schedule for the cleaning and inspection of the transmission system;
   ii. a maintenance and inspection plan for the natural gas pipeline and its appendages;
   iii. maintenance and inspection plan for compressor stations;
   iv. the reconstruction and development tasks of the transmission system and its appendages.

[51] Section 94 (5) of the Implementation Decree

b) In order to maintain the operability of the interconnected natural gas system, the transmission system operator shall be entitled to carry out maintenance, reconstruction and development work that may cause the interruption of the natural gas transmission service on the secondary side of the gas delivery station on one occasion per year - if it also affects gas supply to the user - as defined on the basis of the relevant provisions[52] of the Implementation Decree.
c) The transmission system operator shall have the right to reduce or cancel the published shutdown dates 15 days in advance of the scheduled date of the shutdown, in accordance with the relevant provision[53] of the Implementation Decree.
d) With regard to work involving a planned outage that does not qualify as scheduled preventive maintenance affecting the transmission system:

   i. if the transmission system operator performs the work (reconstruction, development) for its own benefit, it shall consult with the neighbouring network operator in accordance with the relevant provisions[54] of the Gas Supply Act as soon as the fact becomes known, but at least 15 days in advance;
   ii. if the work is initiated by a third party, the initiating party shall present the statements of consent of the parties concerned to the transmission system operator at least 20 days before starting the work. In order to obtain the statements of consent as soon as possible, the transmission system operator may initiate consultations between the parties concerned.

3.1.10.4. Maintenance and renovation of the distribution system operator's pipelines

a) The distribution system operator shall prepare an annual maintenance and shutdown schedule for the natural gas distribution pipeline operated by it, which shall include:

   i. maintenance of natural gas distribution pipelines and appendages;
   ii. maintenance and inspection of gas receiving stations and pressure regulators;
   iii. maintenance and inspection of machines, devices and measuring instruments used for the operation of natural gas distribution pipelines.

b) The distribution system operator shall prepare a medium-term plan for natural gas distribution pipeline renovation (reconstruction), taking into account operational and safety aspects.

[52] Section 94 (1) of the Implementation Decree
[53] Section 94 (6) of the Implementation Decree
[54] Section 78 (2) of the Gas Supply Act

3.1.10.5. Maintenance and refurbishment of underground storages

a) The storage system operator licensee shall prepare an annual maintenance and shutdown schedule for the underground storages operated by it, which determines the dates of underground and surface equipment maintenance and the main guidelines for its technical scope.
b) The storage system operator licensee shall notify the neighbouring network operator by 15 December each year of the dates of maintenance involving planned outages and affecting the neighbouring network operator and the network user. The neighbouring network operator shall take this into account when determining the maintenance schedule of the system operated by it in order to determine the dates of scheduled shutdowns.

3.1.10.6. Maintenance and renovation of the natural gas producer's technologies

a) The natural gas producer shall prepare an annual maintenance and shutdown schedule for the technologies operated by it on the basis of the relevant legislation.
b) The natural gas producer shall notify the neighbouring network operator by 15 December each year of the dates of maintenance involving planned or unplanned outages and affecting the neighbouring network operator and the network user. In case of a partially isolated system, it shall send to the neighbouring network operator or, in case of a fully isolated system, to the designated transmission system operator a list of maintenance shutdowns planned for the isolated system and involving unplanned outage by 15 December each year.
c) The natural gas producer shall notify the neighbouring network operator without delay of the expected date and duration of its unscheduled activities involving planned or unplanned outages and affecting the neighbouring network operator and the network user.

3.2. Connection

3.2.1. General conditions for connection to the natural gas network

a) A precondition of connection shall be that the application complies with the requirements of the relevant legislation and the relevant system operator's business code.
b) Where connection at the applicant's request to the natural gas distribution system is made at the applicant's expense, the equipment's owner and the distribution system operator concerned shall agree on ownership, operation and technical design of the connection point. On the basis of the agreement, the distribution system operator concerned shall initiate the amendment of its operating license as necessary.
c) In the event of connection to the interconnected natural gas system, the technical scope and scheduling of the implementation of the connection point shall be regulated in the connection contract between the system operator and the actor wishing to connect.
d) Upon conclusion of the connection contract, the system operators shall enter on their records the purchased capacity construed as at the exit point of the natural gas

distribution system (m3/h) and of the transmission system (kWh/h (25/0 °C)), in accordance with the connection contract.

e) For customers connected to the transmission system before 2004, the purchased capacity shall be the capacity recorded in the interconnection agreement, or in the connection contract, or the document related to the capacity available at the point of delivery (which is not to be construed as booked capacity).

f) In the case of a customer who can only be supplied the demanded capacity in part or in full by means of interruptible capacity, the purchased capacity shall accordingly be recorded in the transmission system in part or in full as interruptible.

g) The system operator concerned may reject a request for connection if:

   i. there is a technical obstacle to connection;
   ii. connection is contrary to law;
   iii. the applicant requesting the connection does not undertake to pay the connection fee or to comply with the conditions for connection specified in separate legislation[55] or in the relevant system operator's business code;
   iv. the applicant does not have access permission as stipulated in paragraph 1.5 of the Code.

h) Ensuring the pressure and the quantitative and qualitative measurement of gas to be delivered at the production exit point shall be the natural gas producer's responsibility at its own expense and title to the instruments related to quantitative and qualitative measurement shall be transferred to the statutory transmission system operator in accordance with legislation.

i) In the event of new demand, the system operator shall check the availability of capacity on its own system. In the case of a capacity-charge user taking off gas from the natural gas distribution system, or if in the distribution system operator's opinion satisfaction of the new demand exceeds the capacity of the transmission system exit point included in the interconnection agreement concluded with the transmission system operator, the distribution system operator shall request a certificate from the transmission system operator as to whether the required capacity is available on the transmission system. If the distribution system operator overloads the exit point, it shall bear any and all troubleshooting costs incurred. If the required capacities are available, the distribution system operator shall notify the prospective user thereof. If the required capacity is not available, paragraph 3.2.2 of the Code shall apply.

j) If the required capacity is available at the POD requested by the user on the natural gas distribution network but the required transmission system capacity is not available on the transmission system, the capacity expansion of the exit point shall be initiated with the transmission system operator on the basis of paragraph 3.3 of the Code. The connection can be performed on the natural gas distribution system in the event of approval of, and in coordination with, the transmission system development. If, in addition to the expansion of a gas delivery station, the development of the transmission system is also required, it shall be included in the 10-year development proposal, the implementation of which may take place after acceptance and approval thereof by the Authority.

[55] Sections 63-72 of the Implementation Decree

3.2.2. Connection to the transmission system

a) The transmission system operator shall appraise connection applications submitted to it as follows.
b) For appraisal of a connection request, a feasibility study shall be conducted which determines the technical and financial conditions of connection:

   i. If development necessary for installing the connection requested in the application is included in the 10-year development plan and the conditions of refusal defined in paragraph 3.2.1 of the Code do not exist, the transmission system operator shall approve it.
   ii. If development required for installing the connection point is not included in the development plan and the conditions of refusal defined in paragraph 3.2.1 of the Code do not exist, the transmission system operator shall agree with the applicant on the potential technical and expected financial preconditions of connection. If the applicant accepts the technical and financial conditions of connection, the transmission system operator shall include it in its next 10-year development proposal, provided that the natural gas pipeline or compressor station requires development.

c) Financing against the connection fee shall be included in the licence application submitted to the Authority.
d) The amount of the connection fee shall become final upon issuance of the license.
e) The transmission system operator shall assess the feasibility of installing a connection point on the basis of financing considerations, in view of the following:

   i. installation of a connection point increasing the transmission system operating fee;
   ii. installation of a connection point not increasing the transmission system operating fee.

f) The detailed rules shall be contained in the transmission system operator’s business code.

3.2.3. Connection to the natural gas distribution system

a) For appraisal of a connection request, a feasibility study shall be conducted which determines the technical and financial conditions of connection:

   i. If the necessary free capacity is available for the requested connection and the demand meets the general conditions of connection and, furthermore, no grounds for rejecting connection exist, the distribution system operator shall provide the purchased capacity after payment of the connection fee for connecting to the interconnected natural gas system in accordance with the Tariff Decree.
   ii. If the free capacity required for installing the connection point is not available at the entry-exit point but the demand meets the general conditions of connection and, furthermore, no grounds for rejecting connection exist, the distribution

system operator shall agree with the applicant on the potential technical and financial conditions of connection.

b) If the expected capacity demand, as calculated with the simultaneity factor, of the users supplied from the system connected to the gas delivery station exceeds the technical capacity of the gas delivery station, the distribution system operator shall inform the transmission system operator of the modified capacity demand. If the transmission system operator informs the distribution system operator that the required free capacity is not available on the transmission system, the tasks laid down in paragraph 3.2.2 of the Code shall also be performed in the course of connection.
c) In the case of a new capacity-charge user wishing to connect, the user shall, in reporting its connection request, indicate the hourly and daily capacity (kWh/hour and m3/hour and kWh/day) and the annual quantity (kWh/year) intended to be taken off at the user's location.
d) A new base-rate user intending to connect to the natural gas distribution system shall, in reporting its request for connection to the network, supply the distribution system operator with data necessary for classification into the natural gas distribution profile specified in Annex II to the Code.
e) A new user intending to connect to the network shall, in reporting its request to connection to the network, indicate the hourly capacity and the annual quantity to be taken off at the user's location.

3.2.4. Interconnection of natural gas distribution and transmission systems

a) The natural gas distribution network shall be connected to the transmission pipeline through gas delivery stations. The outlet pressure of the gas delivery station is equal to the operating inlet pressure of the natural gas distribution pipeline.
b) In the event that the distribution system operator intends to change the transfer pressure compared to the pressure value agreed upon on the basis of Chapter 1.8 of the Code while the capacity demand remains unchanged, the interconnection agreement concluded with the transmission system operator shall be amended. The parties shall agree on the technical and financial conditions of transformation.
c) It shall be the applicant's obligation to obtain permits and approvals necessary for a pressure increase on the distribution system operator's side. The transmission system operator shall act in accordance with its business code regarding the reimbursement of any costs that may be incurred in connection with the transformation of the transmission system.
d) The overpressure protection of the gas delivery station shall ensure that the pressure in the natural gas distribution network does not rise, even temporarily, above the maximum incidental pressure (MIP) determined by the distribution system operator according to the relevant standard[56], or above the permitted pressure, which shall be specified in the relevant agreement.
e) An additional condition of connection shall be for both the gas delivery station and the natural gas distribution network to have a valid occupancy permit issued by the territorially competent mining authority or on the basis of the operator's quality assurance system.

[56] MSZ EN 12186

f) The connection of the natural gas distribution pipeline to the transmission system requires the transmission system operator's declarations of acceptance of the capacity and the technical solution.

3.2.5. Interconnection of natural gas distribution and production networks

a) A natural gas producer wishing to connect to the natural gas distribution network shall provide its entry capacity demand (kWh/hour, kWh/day), entry pressure and gas quality data when submitting its request notification.
b) If the natural gas producer's entry capacity, entry pressure and the quality of the gas to be fed in do not require the development of the natural gas distribution network, the distribution system operator shall accept the new or increasing capacity demand.
c) If the natural distribution system operator can only meet the submitted capacity increase demand by developing its system, it shall send its offer to the entity requesting the capacity within 60 days.
d) The natural gas producer shall deliver natural gas to the distribution system operator at the metering station at the capacity specified by the network user and at the pressure and in the quality specified by the distribution system operator.
e) The distribution pipeline's owner and the natural gas producer, with the involvement of the transmission system operator, shall conclude a written contract on the method, the technical and operating conditions and the cost-sharing arrangements of the pipeline between the production exit point and the distribution system operator's connection point.

    i. If the capacity (kWh/hour) of the gas delivery station's exit point exceeds the aggregate network user capacity demand (kWh/hour) on the neighbouring natural gas distribution system, the natural gas producer shall pay the installation cost to the natural gas distribution system's owner by covering the full investment cost or shall build and operate the pipeline as its own property.
    ii. If the capacity (kWh/hour) of the gas delivery station's exit point is less than the total user capacity demand (kWh/hour) on the neighbouring natural gas distribution system and there is a real network user demand for injection from the natural gas production site to the distribution pipeline, the natural gas distribution system's owner shall agree with the natural gas producer on sharing the costs of the distribution pipeline to be installed.
    iii. If connection by the producer to the natural gas distribution system gives rise to development at the transmission system operator, the natural gas producer shall bear the costs of such development.

f) If the natural gas producer wishes to keep as its own property the distribution pipeline to be installed between the natural gas production site and the existing natural gas distribution pipeline, it shall enter into an operation agreement with the distribution system operator assigned by the Authority to operate the pipeline.

3.2.6. Connection of natural gas distribution systems and on-site systems to natural gas distribution pipelines

a) For the connection of the natural gas distribution pipeline and the on-site pipeline to the natural gas distribution system, the distribution system operator's declarations of acceptance of the natural gas distribution capacity and the technical solution shall be required.
b) The two neighbouring distribution system operators, as well as the distribution system operator and the site licensee shall ensure connection without a pressure difference by installing an isolating valve.
c) At the natural gas distribution pipeline's connection point, the distribution system operator ensuring connection shall operate an instrument suitable for the authentic measurement of the gas volume.
d) As an additional precondition of connection, that the connected natural gas distribution pipeline or on-site system shall have a valid occupancy permit.

3.2.7. Connection to an underground storage system

a) Underground storages may be connected to by distribution system operators, transmission system operators or natural gas producers.
b) Due to the technical characteristics of the underground gas storage, the conditions of connection to the underground gas storage shall be assessed individually by the storage system operator licensee upon submission of the given request.
c) Following the implementation of connection, cooperation at the connection point shall be regulated in an interconnection agreement between the natural gas storage licensee and the entity requesting the installation of the connection point.

3.3. System development

3.3.1. General rules of system development

a) The interconnected natural gas system shall be developed in such a way that it shall be suitable to safely satisfy needs for domestic gas transmission and transmission through Hungary.
b) The system operator shall carry out the development of technical facilities and equipments used in the supply of natural gas, in compliance with safety specifications and the policy of least cost.
c) In case of a capacity change, the system operator licensees shall consult individually with the relevant neighbouring network operator in advance. In the course of consultation, the location of capacity development, the parties' technical and financial obligations and the deadline for implementation shall be specified.
d) During system development, the system operator shall take into account the submitted estimated capacity demand data, user demand forecasts and actual consumption data of the recent period. In the case of temperature-dependent users, the system shall be scaled to the consumption specified in the Gas Supply Act, estimated for the extreme temperatures occurring with a statistical probability of once in 20 years,
e) Network user capacity demand submitted to the system operator shall be provided as firm capacity, unless otherwise provided in the interconnection agreement between the neighbouring system operators. If the system operator needs to carry out development in order to meet new demand, it shall be implemented in accordance with the Authority's approval.

f) Distribution system operators shall supply the transmission system operator with information necessary to assess development needs.
g) System operators shall perform modelling based on network diagnostic data when planning the technical development of their networks.
h) During system development, the system operators shall use calculation procedures and IT programmes for modelling the operational functioning of their systems that determine the pressure values of the exit points in view of user loads.
i) Exit point's outlet pressure values shall not fall below the lower limit of the operating pressure range (i.e. below the primary side pressure required to ensure the exit point pressure in case of regulated pressure (determined by the transmission system operator) and below the guaranteed minimum pressure undertaken by the system operator in case of what is known as unregulated transmission line exit point pressure) even under maximum load.
j) In case of border crossing (interconnection) point capacity development projects, the transmission system operator shall act in accordance with Regulation (EU) 2017/459[57]. In the case of an interconnection pipeline, the transmission system operators concerned shall agree on development needs for the interconnection points.

3.3.2. Annual review of development needs on natural gas transmission or distribution systems

a) The capacity demands of a given system shall be reviewed annually in the light of available capacities, in respect of the following:

   i. demands at exit points and available capacities;
   ii. demands at entry points.

b) The capacity review of the given system and the preparation of development proposals shall take place in consideration of the following. The system operator concerned shall:

   i. perform the necessary hydraulic calculations in accordance with the estimates and the expected capacity demand based on actual consumption in the preceding period;
   ii. summarize the test results in a capacity and hydraulic study, highlighting development proposals necessary for capacity-building (identification and scheduling);
   iii. develop the technical scope related to development needs in the preparatory phase of satisfaction of demand;
   iv. prepare cost estimates for development;
   v. prepare a time schedule for the implementation of development.

3.3.3. Rules related to the transmission system

3.3.3.1. Annual review of development needs

a) The network user shall send its own and its consumers' capacity and natural gas delivery demands to the transmission system operator no later than until 31 August

[57] Regulation (EU) 2017/459, CHAPTER V

each gas year. Data of an indicative nature for the next 10 gas years shall be provided on the basis of paragraph 3.3.1 of the Code, with the data content described in paragraph 3.3.3.2.1 of the Code. Natural gas traders requesting capacity shall provide data on their customers served on 1 August when forecasting demand.

b) The transmission system operator shall prepare the transmission system for the estimated demand indicated to it or, in the case of temperature-dependent exit points, for the demand estimated for the extreme temperature occurring with a statistical probability of once in 20 years

c) The transmission system operator shall determine the estimated capacity demands, taking into account the estimated demand submitted for the transmission system and the actual consumption during the previous time period and transfers the calculations to the neighbouring network operator by 15 September. The transmission system operator shall break down the estimated demand for the aggregate network points, in proportion to the actual gas volume/winter day peak off-take data of the preceding 3 gas years at each physical network point. The neighbouring system operator shall review and, if necessary, amend the estimated capacity demands received and the breakdowns of the aggregated exit points.

d) By no later than 31 October each year, the distribution system operators shall, using the information referred to in paragraph c) and paragraph 3.3.4.2 a) of the Code, supply the transmission system operator with the expected annual volume, the estimated maximum daily and hourly and the minimum hourly gas quantities for individual or merged entry-exit points per gas year for each of the next 10 gas years, taking into account the estimated needs of existing and future users. The distribution system operator shall supply the transmission system operator with the above data via the Information Platform.

e) By 01 August, before each gas year, domestic producers and storage system operator licensees shall send to the transmission system operator to which they are connected the available capacities per connection point and entry point for the next 10 gas years broken down annually and, for the first gas year, the quantities to be transported broken down monthly, with the following information content:

f) In respect of producers:

   i. expected gas production per entry point (kWh/year (25/0 ºC), m^3/year (0 °C))[58];
   ii. expected gas production for the first gas year (kWh/month (25/0 ºC), m^3/month (0 °C));
   iii. maximum available daily (kWh/day (25/0 ºC), m^3/day (0 °C)) and hourly capacities (kWh/hour (25/0 ºC), m^3/hour (0 ° C)) per entry point;
   iv. typical average summer daily gas production per entry point (kWh/day (25/0 ºC), m^3/day (0 °C));
   v. minimum hourly production values per entry point (kWh/hour (25/0 ºC), m^3/hour (0 °C));
   vi. the amount of blending gas required to improve gas quality (kWh/day (25/0 ºC), kWh/hour (25/0 ºC), m^3/day (0 °C), m^3/hour (0 °C)).

g) In respect of underground storages:

[58] For measurement units, the reference conditions for volume are: 0 °C and 1.01325 bar(a), energy reference conditions: energy based on gross calorific value at 25/0 °C.

i. maximum available daily (kWh/day (25/0 ºC)) and hourly withdrawal and injection capacities (kWh/hour (25/0 ºC)) depending on the working gas stock level;
ii. minimum hourly quantity of withdrawal and injection to storage (kWh/hour (25/0 ºC));
iii. typical summer daily quantity of injection to storage (kWh/day (25/0 ºC));
iv. load-down and load-up speed per storage point (kWh/hour/hour (25/0 ºC)).

3.3.3.2. Data content of forecasted customer and network user demand

3.3.3.2.1. The data content of forecasted customer demand

a) In respect of a given network exit point:

i. Planned delivered quantity for the gas year (kWh/year (25/0 ºC));
ii. for the first gas year, planned delivered quantity broken down by month (kWh/month (25/0 ºC));
iii. maximum peak demand per exit point (kWh / hour (25/0 ºC), kWh / day (25/0 ºC));
iv. average summer daily average (kWh/day (25/0 ºC)) and minimum hourly demand (kWh/hour (25/0 ºC)) per exit point;
v. the amount of gas intended to be transported per entry point under gas purchase contracts concluded for supplying customers (kWh/year (25/0 ºC); kWh/month (25/0 ºC), kWh/hour (25/0 ºC)).

3.3.3.2.2. The data content of forecasted network user demand

a) Aggregated for exit points served by the network user:

i. Planned delivered quantity for the gas year (kWh/year (25/0 ºC));
ii. maximum peak demand aggregated for exit points (kWh/hour (25/0 ºC), kWh/day (25/0 ºC));

b) In respect of injection data:

i. expected natural gas delivery demand per entry point (kWh/year);
ii. maximum daily (kWh/day) and hourly peak demand (kWh/hour) per entry point;
iii. typical summer daily average (kWh/day) and minimum hourly demand (kWh/hour) per entry point.

c) In respect of data of injection to storage and withdrawal for gas storage facilities:

i. demand for injection to storage and withdrawal (kWh/year);
ii. typical daily (kWh/day) and typical hourly values of peak demand (kWh/hour) to be stored in the storage cycle and their limits;
iii. winter peak daily (kWh/day) withdrawal and hourly (kWh/hour) peak demand.

3.3.3.3. Examining unplanned system development needs

a) The network user shall send the new capacity demand data to the transmission system operator.
b) Information required to report individual capacity demand:

   i. customer's annual gas demand (kWh/year (25/0 ºC), m^3/year (0 ºC));
   ii. expected daily peak at the exit point (kWh/day (25/0 ºC), m^3/day (0 ºC));
   iii. customer's hourly peak off-take capacity demand (kWh/hour (25/0 ºC), m^3/hour (0 ºC)) in the given years;
   iv. required minimum natural gas transmission quantities (kWh/day (25/0 ºC), m^3/day (0 ºC)) and minimum hourly demand values (kWh/hour (25/0 ºC), m^3/hour (0 ºC));
   v. nominal pressure demand at the exit point;
   vi. consumption load-up speed at the exit point (kWh/hour (25/0 ºC); time interval);
   vii. expected natural gas delivery demand per entry point (kWh/year (25/0 ºC), m^3/year (0 ºC));
   viii. maximum daily (kWh/day (25/0 ºC), m^3/day (0 ºC)) and hourly peak demand (kWh/hour (25/0 ºC), m^3/hour (0 ºC)) per entry point;
   ix. typical summer daily average per entry point (kWh/day (25/0 ºC), m^3/day (0 ºC));
   x. minimum hourly demand per entry point (kWh/hour (25/0 ºC), m^3/hour (0 ºC)).

c) The transmission system operator shall set out the conditions of securing the capacity demand in a capacity declaration within 60 days of the receipt of a complete request.
d) The capacity declaration shall include:

   i. whether capacity can be secured;
   ii. technical conditions necessary to meet demand;
   iii. a time schedule for the implementation;
   iv. expected financial resources required for development.

e) In the capacity declaration, transmission system operator shall propose a method of financing.
f) If an unforeseen development need can be met without expanding the existing natural gas pipelines and compressor stations, the transmission system operator may carry out the development without including it in the development proposal submitted to the Authority, following the amendment of the operating license approved by the Authority[59].

3.3.4. Rules related to natural gas distribution system

3.3.4.1. Examination of system development needs within the gas year

a) The network user shall transmit the new capacity demand to the distribution system operator.
b) Information required for report individual capacity demand:

[59] Section 83 (5) of the Gas Supply Act

i. customer's peak hourly off-take capacity demand (kWh/hour (25/0 ºC) and m^3/hour (0 ºC)) in the given years;
ii. expected daily peak at the exit point (kWh / day (25/0 ºC) and m^3/day (0 ºC));
iii. nominal pressure demand at the exit point.

c) If no development is required at the transmission system operator's exit point, the distribution system operator shall set the conditions for securing the capacity demand in a connection offer within 30 days of receipt of the request. Otherwise, it shall submit its connection offer within 30 days of the transmission system operator's response.
d) In case of a capacity bottleneck at the natural gas distribution pipeline's entry point, the distribution system operator shall consult with the transmission system operator about the conditions of exit point capacity expansion for securing capacity.
e) The connection offer shall include:

i. whether capacity can be secured;
ii. technical conditions necessary to meet demand;
iii. implementation schedule;
iv. expected financial resources required for development.

f) The distribution system operator shall propose a method of financing in the connection offer.

3.3.4.2. Annual review of development needs

a) By 31 August, before each gas year, the network user shall send its own and its customers' capacity and distribution needs to the distribution system operator, which shall contain the following information per entry and exit point for the next 10 gas years, on the basis of paragraph 3.3.1 d) of the Code:

i. exit point needs assessment by the network user in respect of its own customers (the data refer to the normal state of gas (101 325 Pa, 288.15 K));
ii. maximum daily (kWh/day (25/0 ºC) and m^3/day (0 ºC)) and hourly peak demand (kWh/hour (25/0 ºC) and m^3/hour (0 ºC)) per exit point.

b) If the network user does not wish to use its demand forecasting option, it shall make a declaration that it is not aware of any development needs.
c) Following this deadline, distribution system operators shall carry out their inspections and data disclosure even if the network users have not, or only partially, supplied data.
d) The distribution system operator shall send its development proposal in respect of the relevant entry-exit points to the transmission system operator to which it is connected by 31 December each year.
e) If the demands submitted for the natural gas distribution system and the neighbouring transmission system are different, the distribution system operator shall initiate consultations with the transmission system operator.
f) By 01 August, before each gas year, domestic producers and the natural gas storage licensee shall send to the distribution system operator the available capacities per connection point and entry point for the next 10 gas years, with the following information content:

g) In respect of producers:

   i. maximum available daily (kWh/day (25/0 ºC)) and hourly capacities (kWh/hour (25/0 ºC)) per entry point;
   ii. typical summer daily average (kWh/day (25/0 ºC)) per entry point;
   iii. minimum hourly production values per entry point (kWh/hour (25/0 ºC));
   iv. amount of blending gas required to improve gas quality (kWh/day (25/0 ºC), kWh/hour (25/0 ºC)).

h) In respect of underground storages:

   i. maximum available daily capacity of injection to storage and withdrawal (kWh/day (25/0 ºC)) and hourly capacity (kWh/hour (25/0 ºC));
   ii. minimum hourly quantity per entry and exit point (kWh/hour (25/0 ºC)).

3.3.5. Rules related to the natural gas storage system

3.3.5.1. Annual review of development needs

a) Licensed network users shall send to the storage system operator licensee estimates of an indicative nature of the anticipated medium-term and long-term gas storage demand necessary for the development of the natural gas storage system, as well as their demand related to the next storage year. Information shall be provided on an annual basis for the next 10 storage years as follows:

   i. working gas capacity demand (kWh (25/0 ºC));
   ii. injection capacity demand (kWh/day (25/0 ºC));
   iii. withdrawal capacity demand (kWh/day (25/0 ºC)).

b) For assembling the 10-year development proposal, the storage system operator licensee shall take into account:

   i. the results of market analysis it has performed;
   ii. capacities intended to be booked by the transmission system operator in order to maintain system balance;
   iii. development cost estimates;
   iv. the rate of return.

c) The storage system operator licensee shall prepare its 10-year development proposal after consultation with the neighbouring system operators.
d) The storage system operator shall send its 10-year development proposal worked out on the basis of the foregoing point in respect of the relevant network points to the transmission system operator to which it is connected by 31 December each year.

3.3.5.2. Examining system development needs within a storage year

The storage system operator licensee may, if technically feasible, carry out immediate system development to serve capacity demand emerging during the storage year.

3.3.6. Assembly and approval of a 10-year development proposal for interconnected natural gas systems

a) The preparation and approval of a 10-year development proposal in respect of interconnected natural gas systems shall be governed by the relevant provisions of the Gas Supply Act and the Implementation Decree.
b) The system operator concerned shall only propose for inclusion in the 10-year community network development plan or any other regional development plan those projects which are included in the 10-year development proposal of the interconnected natural gas system and have been previously supported by the competent Ministry or the Authority in the appropriate official form.
c) Opinions received in the course of public consultation shall be attached to the proposal.

4. Book IV: Individual procedures

4.1. Isolated systems

4.1.1. Operation of the transmission system operator's fully isolated system

4.1.1.1. General rules for the transmission system operator's fully isolated system

a) By 01 August each year, the producer shall provide the contracted network user and the neighbouring network operator with 10-year data of guaranteed quantitative and qualitative production broken down by year on injection to the transmission system operator's fully isolated system. In terms of quality, the producer shall not exceed the tolerance range of ± 5% of the average gross calorific value assigned to the production point, as published in the Quality Accounting Rules, during production (annual, daily, hourly maximum, hourly minimum).
b) For isolated systems, the natural gas producer shall, in accordance with the Code, submit to the transmission system operator its forecasted annual production data and indicate the expected natural gas quality for 10 years in advance, by 01 August each year. If the natural gas producer does not report its production figures by the deadline, the transmission system operator shall start the termination of the isolated system, in accordance with the procedure set out in paragraph 3.3 of the Code.
c) The system operator of the transmission system operator's fully isolated system shall, on the basis of the 10-year expected production and consumption data, determine the date from which the changeover of equipment or the installation of technology obviating the need for changeover becomes necessary as a result of the change in quality.
d) Based on the 10-year forecasted production and consumption data, the transmission system operator shall start the connection of the transmission system operator's fully isolated system, i.e. the termination of the transmission system operator's fully isolated system at least two gas years in advance, in accordance with the procedure laid down in paragraph 3.3 of the Code.
e) If it is necessary to change the equipment, the system operator shall notify the relevant network operators directly supplying the users and the users directly taking off gas from the system, two gas years in advance of the expected date of changeover. The network operator connected to the transmission system operator's fully isolated system and directly connected to the users shall inform the users taking off gas from its system about the necessity, expected date and process of the equipment changeover.
f) Consumers supplied from the transmission system operator's fully isolated system shall be informed by the system operator directly supplying it about the characteristics of an isolated system, with special regard to the purchase and settings of consumer equipment and the costs of equipment changeover resulting from any change in natural gas quality.
g) For any and all damage resulting from the injection of natural gas of inappropriate quality into the transmission system operator's fully isolated system, the network user shall be held liable.
h) The transmission system operator's fully isolated system can only be terminated, which means that it shall be made an integral part of the transmission system and the

connection point of the former fully isolated system shall not be a network settlement point.

4.1.2. Operation of the distribution system operator's fully isolated system

4.1.2.1. General rules for the distribution system operator's fully isolated system

a) By 01 August each year, the producer shall provide the distribution system operator with 10-year data of guaranteed quantitative and qualitative production broken down by year on injection to the distribution system operator's fully isolated system.
b) Production by the producer shall depend on off-take by users connected to the distribution system operator's fully isolated system, which shall in all cases cover user needs. The producer shall inject natural gas in the quantity corresponding to the total actual needs of consumers connected to the fully isolated system.
c) During production, the gross calorific value of natural gas shall not exceed a quality tolerance of ± 5% in relation to the average gross calorific value assigned to the production point.
d) The system operator of the distribution system operator's fully isolated system shall, on the basis of the 10-year expected production and consumption data, determine the date from which the changeover of equipment or the installation of technology obviating the need for changeover becomes necessary as a result of the change in quality.
e) Based on the 10-year forecasted production and consumption data provided by the natural gas producer, the distribution system operator shall initiate with the transmission system operator connection of the distribution system operator's fully isolated system to the transmission system at least two gas years before the production falls below the consumption level, in accordance with the procedure set out in paragraph 3.3 of the Code.
f) If the natural gas producer does not report its production figures by the deadline, the distribution system operator shall start the termination of the isolated system, in accordance with the procedure set out in paragraph 3.3 of the Code.
g) The costs of supply to users arising in connection with terminating the fully isolated system shall be borne by that network operator which implements system development required to supply users on the basis of the approved development proposal.
h) The distribution system operator shall inform users supplied from the fully isolated system about the characteristics the fully isolated system. For the distribution system operator's fully isolated system, only those network users shall be allowed to connect that have gas purchase contracts with the producer performing injection or with a trader having a gas purchase contract with the producer for the gas quantity required to meet the user's demand.
i) For any and all damage resulting from the injection of natural gas of inappropriate quality into the distribution system operator's fully isolated system, the network user performing the injection shall be held liable.
j) Responsibility for the supplying users in the distribution system operator's fully isolated system shall rest with the network user. It shall be liable for damages resulting from any entry point troubles or quality defects.

k) The network user shall be responsible for ensuring that the quality of the natural gas fed by it into the natural gas distribution system shall comply with the gas quality specifications set out in paragraph 3.1.3 of the Code.
l) If the distribution system operator becomes aware that the quality of natural gas injected to the natural gas distribution system differs from that specified in the contract, the distribution system operator shall immediately notify the relevant network user and the neighbouring producer in writing about the injection of off-spec natural gas.
m) If off-spec natural gas is injected, the distribution system operator shall be entitled to pass on to the network user any damage caused to it or to the connected consumers by injecting off-spec natural gas and may refuse to take over the network user's defective gas.

4.1.3. Operation of a partially isolated system

4.1.3.1. General rules for a partially isolated system

a) Operation of a partially isolated system is only possible on a natural gas distribution system; a partially isolated system on the transmission system cannot be interpreted.
b) The balance of the partially isolated system shall be ensured by maintenance of the entry point pressure guaranteed by the producer in the contract between the injecting natural gas producer and the distribution system operator or of the pressure at the natural gas distribution system's supplier side entry point as undertaken by the transmission system operator in the interconnection agreement between the distribution system operator and the transmission system operator. The producer shall regulate the injected volume in such a way that injection by the supplier shall guarantee the minimum volume stipulated in the interconnection agreement.
c) For calculating gas traffic in the partially isolated system at the production entry point:

    i. The transmission system operator shall establish a virtual transmission system entry point. The quantitative and qualitative data related to the virtual entry point shall be the same as the measurement data of the production physical entry point operated by the producer. The producer shall transmit the hourly quantitative and qualitative data to the transmission system operator on an hourly basis via the data traffic channel specified by the transmission system operator.
    ii. The transmission system operator shall establish a virtual exit point on the transmission system in the direction of the distribution system operator, whose data shall be the same as the data of the virtual entry point referred to in paragraph i.
    iii. The virtual exit point referred to paragraph ii shall be merged by the transmission system operator with the physical exit point in the direction of the distribution system operator in accordance with the rules detailed in paragraph 2.1.9.2 of the Code and shall be treated as one point in terms of commercial network usage (capacity booking, nomination, matching, allocation, etc.).
    iv. The daily weighted average gross calorific value of the merged virtual transmission system's exit point shall be calculated by the transmission system operator, taking into account the quantity and gross calorific value of natural gas

injected to the partially isolated system, actually measured at the transmission system exit point and the production entry point on the given gas day.

4.1.3.2. Special rules of capacity booking in a partially isolated system

a) In a partially isolated system, the network user having a contract with the natural gas producer or the producer shall book capacity at the transmission system's virtual entry point.
b) If the producer wishes to transport natural gas for its own use or for export from the territory of Hungary, it shall reserve capacity to the extent thereof at the virtual entry point of the transmission system operator's partially isolated system. Capacity utilisation on a given gas day shall be limited to the extent of transport in the direction of physical flow on the given gas day. There is no possibility of transmission in the reverse direction of the physical flow.
c) If the planned production is less than the expected consumption of the users supplied by the network users in the partially isolated system, the user or the natural gas trader acting on its behalf shall conclude a contract for transmission system entry point capacity and, at the partially isolated system's merged exit point towards the transmission system, for exit point capacity with the transmission system operator and feed the missing gas quantity into the natural gas distribution system.
d) In the partially isolated system, the network user not having a contract with the natural gas producer shall book capacity at the transmission system's entry point and at the merged exit point transporting gas in the direction of the partially isolated system.
e) Network users with source surplus within the partially isolated system may inject the surplus to the transmission system virtually to such an extent that it shall not require actual physical supply towards the transmission system, as flow in the direction of the transmission system is not possible at the entry point of the partially isolated system.

4.1.4. Natural gas quality requirements in an isolated system

a) In an isolated system, the quality of natural gas shall be measured and certified by the producer.
b) The 2S gas group defined in the Implementation Decree[60] may only be fed into the transmission system in case of a fully isolated system.
c) At transmission system exit points or on the natural gas distribution systems supplied from these points, unless they are fully or partially isolated systems, it is recommended to conclude contracts with users and traders for the gross calorific value range as specified for traders and universal service providers by the relevant provisions[61] of the Quality Accounting Rules and the Implementation Decree.
d) In an isolated system, the system operator operating the isolated system shall, by 15 February each year, calculate the isolated system's average gross calorific value weighted with daily fed gas quantities as specified in the Quality Accounting Rules and publish the same on its website. In an isolated system, traders shall fix the gross calorific value range specified by the relevant provision[1] of the Implementation Decree from the published gross calorific value in a contract with the consumers.
e) If in the partially isolated system the producer detects, on the basis of its own measurements, that off-spec natural gas is injected, it shall immediately terminate it and concurrently notify the neighbouring network operator and the network user having a contract with it.

[60] Annex 11
[61] Section 66/A of the Implementation Decree

f) The network operator shall notify the neighbouring transmission system operator of the situation caused by the injection of off-spec natural gas. The network users concerned may change their nominations in accordance with the re-nomination rules in force.
g) If the producer has failed to terminate the injection of off-spec natural gas to the partially isolated system, it shall face liability for any damage resulting therefrom.
h) If a network user has sources only at the entry point of the partially isolated system and, due to the off-spec natural gas quality, the producer has stopped supplying natural gas and the network user has not made arrangements for other sources from the direction of the transmission system, then balancing natural gas shall be fed from the transmission system towards the partially isolated system for the network user concerned. In this case, the network user shall pay the transmission system operator a capacity overrun surcharge for the used capacity, in accordance with the provisions of the Price Application Decree.
i) Distribution system operators may suspend access to the system operated by them if the quality of natural gas fed into the fully or partially isolated system fails to meet the gas quality requirements laid down in paragraph 3.1.3 of the Code or in the interconnection agreements concluded between the system operators.
j) The network user shall be responsible for seeing to it that the quality of the natural gas fed into the transmission system shall comply with the gas quality requirements stipulated in paragraph 3.1.3 of the Code. The same responsibility shall apply in the case of both fully and partially isolated systems.
k) Based on the analysis of the simulation system operated by the transmission system operator at the entry point where off-spec natural gas was injected, the network users thus identified shall be liable for damages resulting from the injection of off-spec natural gas in proportion to the gas amount injected by them. This rule shall also apply to fully and partially isolated systems.
l) In the case of a partially isolated system, if the transmission system operator cannot influence, i.e. does not have the possibility to regulate, the amount of gas delivered to the neighbouring network operator, it shall bear no liability or obligation whatsoever at the given exit point.
m) In case of a distribution system operator and the transmission system operator or an isolated system, the distribution system operator shall publish the inspection slips published by the producer on a monthly basis.

4.1.5. Maintenance and renovation of the natural gas producer's technologies in an isolated system

a) The natural gas producer shall notify the neighbouring network operator by 15 December each year of the dates of activities scheduled for the next year, involving planned or unplanned outages and affecting the neighbouring network operator and the network user. In case of a partially isolated system, it shall send to the neighbouring network operator or, in case of a fully isolated system, to the designated transmission system operator a list of maintenance shutdowns planned for the isolated system and involving unplanned outage by 15 December each year.

4.1.6. Natural gas odourisation in an isolated system

a) If a producer injects gas to the distribution system operator's partially isolated system, the producer shall provide the odourisation service at the production entry point to natural gas distribution system on the basis of the odourisation norm specified in the individual odourisation contract concluded with the transmission system operator.
b) If a producer injects gas to the partially isolated system, the producer shall charge the odourisation fee to the transmission system operator as calculated on the basis of the quantity measured at the transmission system's virtual entry point.
c) For a partially isolated system on the natural gas distribution system, the odourisation fee shall be charged by the transmission system operator to the network user with a network usage contract at the transmission system's merged exit point, in accordance with the network usage contract, on the basis of the quantity allocated to the network user.

4.1.7. The process of capacity booking and customer migration in fully and partially isolated systems

a) The provisions of paragraph 2.1 of the Code shall apply to the rules of capacity booking and customer migration in an isolated system.
b) In addition to paragraph a), in isolated systems, the producer shall attach to the capacity booking request a statement that the capacity requested does not exceed the level of own production and it serves the purpose of export from the country or sale at the "Hungarian Virtual Trading Point (MGP)".

4.1.8. Rules for nomination in fully and partially isolated systems

a) Network users having capacity at the entry point of the distribution system operator's fully isolated system (production point) shall nominate the consumption demand of the users they supply with the producer at the entry point of the distribution system operator's fully isolated system, by the nomination deadlines.
b) The network user having capacity at the production entry point to the partially isolated system shall nominate the quantity planned to be fed by the producer to the virtual entry point described in paragraph 4.1.3.1 d) i) of the Code.
c) The network user shall nominate the next day's consumption demand to the transmission system's exit point merged in accordance with paragraph 4.1.3.1 d) ii) of the Code, by the nomination deadlines.
d) If the total consumption of the partially isolated system is lower than the total gas quantity planned to be fed, the natural gas producer shall limit its production, since flow at the transmission system operator's entry point to the partially isolated system will not be possible in the direction of the transmission system.

4.1.9. Allocation in case of an isolated system at the network, entry, injection, withdrawal and exit points of the transmission system

a) The producer shall be responsible for allocation within the fully and partially isolated system in relation to the virtual entry point of the transmission system corresponding to the given production entry point.
b) Allocation in respect of the merged transmission system exit point of the supplier's fully and partially isolated systems shall be performed by the distribution system operator.

4.2. Cross-border delivery on the natural gas distribution system

4.2.1. Management of cross-border delivery on the distribution system

a) Service by a network operator of users whereby the user is served directly from the network of a distribution system operator (sub-distribution system) connected to the network of a distribution system operator (natural gas distribution system) which is connected to the transmission system's exit point shall qualify as cross-border delivery through the transmission system.
b) Cross-border deliveries can be divided into two groups, based on the duration of the cross-border delivery:

   i. permanent cross-border delivery: in this case, the users of the sub-distribution system shall be supplied throughout the year through another natural gas distribution system,
   ii. periodic cross-border delivery: Temporarily established for a certain period (in winter, due to an accident or scheduled maintenance), under an agreement between the two distribution system operators involved. In such a case, the users connected to the sub-distribution system shall be supplied through a distribution area connected to another transmission system exit point instead of the previous transmission system exit point. After temporary cross-border delivery is terminated, they shall be reconnected to the original transmission system exit point.

4.2.2. Capacity booking for the transmission system's exit point

a) In case of capacity bookings for transmission system exit points affected by permanent cross-border delivery, the transmission system capacities required for the supply of users on the natural gas distribution and sub-distribution systems shall be handled in an aggregated manner by the network users.
b) In the case of temporary cross-border delivery, the transmission system operator shall be advised in writing of the start and end dates of cross-border delivery and of the network users involved in the cross-border delivery in a joint declaration by the distribution system operator and sub-distribution system operator by the third business day before the start date of the cross-border delivery. For the period of temporary cross-border delivery, at the relevant network user's written capacity request, the transmission system operator shall set interruptible capacity at the relevant transmission system exit point, which it shall make available to the network user free of charge.

4.2.3. Nomination of the transmission system's exit point

a) In case of permanent and periodic cross-border delivery, the network user shall handle nominations for users connected to the natural gas distribution and sub-distribution systems in an aggregated manner and provide the same in accordance with the requirements set forth in paragraph 2.2 of the Code for the transmission system exit point.

4.2.4. Within-day allocation

a) The distribution system operator shall transmit to the sub-distribution system operator the cross-border delivery data of the quantities (to be allocated) and qualitative data (received from the transmission system operator) concerning the gas delivery station affected by cross-border delivery and required for performing the allocation, by 13 hours 15 minutes and by 17 hours 15 minutes.
b) Using the data received as referred to in the first point, the sub-distribution system operator shall make the allocation in accordance with paragraph 2.4.4 of the Code. The sub-distribution system operator shall send the allocated hourly volumes generated per shipper pairs to the distribution system operator until 13 hours 40 minutes and 17 hours 40 minutes. The distribution system operator shall use the data received in preparing the within-day allocation.

4.2.5. Calculating the after-gas day allocated gas volume

a) The distribution system operator shall transmit to the sub-distribution system operator the cross-border delivery data of the quantities (to be allocated) and qualitative data (received from the transmission system operator) concerning the gas delivery station affected by cross-border delivery by 10 hours 20 minutes on the day following the gas day to be allocated.
b) The sub-distribution system operator shall perform the allocation in accordance with paragraphs 2.4.3.1 a) i-v of the Code. The shipper shall send the allocated daily quantities generated per network user counterparty to the distribution system operator by 11 hours 15 minutes on the day following the gas day to be allocated. The distribution system operator shall use the data received in preparing the daily allocation.

4.2.6. Calculation of the gas volume allocated in the course of the re-allocation procedure

a) The distribution system operator shall transmit to the sub-distribution system operator the cross-border delivery data of the quantities (to be allocated) and qualitative data (received from the transmission system operator) concerning the gas delivery station affected by cross-border delivery no later than on the 6th business day of the month following the subject gas month.
b) The sub-distribution system operator shall perform the allocation in accordance with the provisions of paragraph 2.4.3.2 c) of the Code. The sub-distribution system operator shall send the allocated daily volumes generated per shipper pairs to the distribution system operator at least 48 hours before the expiry of the deadline published by the transmission system operator. The distribution system operator shall use the data received for calculating the gas volume allocated in the course of the re-allocation procedure.

4.2.7. Nomination imbalance on the transmission system

In case of permanent and temporary cross-border delivery, the examination of the nomination imbalance shall take place in accordance with paragraph 2.5.2.5 of the Code at the delivery points affected by the cross-border delivery.

4.2.8. Capacity overrun at the transmission system

a) The distribution system operator shall forward to the sub-distribution system operator the cross-border delivery data of the quantities (to be allocated) necessary for performing the allocation and the qualitative data (received from the transmission system operator) relating to the gas delivery station affected by cross-border delivery on the 6th business day of the month following the subject gas month.
b) The sub-distribution system operator shall perform the allocation in accordance with the provisions of paragraphs 2.5.2.6 f) iii-v of the Code. The sub-distribution system operator shall send the allocated daily quantities generated per shipper pairs to the distribution system operator no later than on the 16th day of the month following the subject gas month. The distribution system operator shall use the hourly peak data specified by the sub-distribution system operator as hourly measured data for performing the hourly peak allocation.
c) When examining capacity overrun, the transmission system operator shall take into account the available capacities as follows:

   i. in case of permanent cross-border delivery, the capacities available to the network user in accordance with the first paragraph of paragraph 2.2 of the Code,
   ii. in case of temporary cross-border delivery, the capacity increased by the interruptible capacity set for the cross-border delivery period at the relevant delivery point and the capacity reduced by the interruptible capacity at the original delivery point affected by the cross-border delivery.

4.3. Rules pertaining to restriction and crisis management

4.3.1. Restriction

a) Restriction is the reduction or termination of gas off-take by users assigned to individual restriction categories on the interconnected natural gas system or part thereof, in order to maintain or restore hydraulic balance.
b) The contract to be concluded with the user in accordance with the relevant legislation shall specify the assignment of the user's natural gas capacities to restriction categories, as well as the capacities that can be restricted in each restriction category, together with the obligation and manner to surrender them.

4.3.2. Restriction categories

a) User categories that may be subject to restriction are specified in Government Decree 110/2020 (14 April).
b) The Roman numbering of restriction categories shall also mean Restriction Order. Users of a higher restriction category may only be subject to restriction if the reduction possibilities of users of a lower restriction category taking-off gas through the gas delivery stations involved in the restriction have been exhausted.

4.3.3. Restriction Order

a) The Restriction Order is a user disconnection sequence developed to restore the hydraulic balance of the interconnected natural gas system.

b) The Restriction Order containing the current aggregation tables by distribution system operator and gas delivery station shall be published by the designated transmission system operator and the Authority on their website in a downloadable format.
c) The transmission system operator, the distribution system operators and the premises based service providers shall, on the basis of network usage contracts, negotiate and jointly determine firm and interruptible capacities booked under contracts, in order to correctly determine the Restriction Order and to consistently interpret restriction options and tasks.
d) The natural gas trader or, in the absence thereof, the user shall inform the system operator by the deadline specified in Government Decree 110/2020 (14 April) of the restriction category the users' capacities shall fall into. In order to classify capacity, the natural gas trader or, in the absence thereof, the user shall determine the classification value from the capacities booked in kWh/hour on the basis of Quality Accounting Rules data at a pressure of 101,325 Pa and in a measurement unit of m^3/h at 15 °C as a reference value.
e) Transmission system operators and distribution system operators shall put together their Restriction Order proposal in respect of their area of operation by the deadline specified in Government Decree 110/2020 (14 April) and upload it to the designated transmission system operator's Information Platform. The Restriction Order shall be prepared in the format and with the content set out in Annex VI to the present Code.
f) If in respect of the data there is a discrepancy between the effective classification and the uploaded proposal not as a result of the classification rules, the system operator performing the upload shall state the reasons to the transmission system operator. The distribution system operator shall provide an itemised list of the reasons at the same time as the upload of the proposal, taking into account the information requested from the network user.
g) The Restriction Order proposal shall be made in a measurement unit of m^3/h per network user group and gas delivery station, broken down by user (per user in the case of capacity-charge users and in aggregate form in the case of users not exceeding it).
h) The designated transmission system operator shall put together the Restriction Order proposal by the deadline specified in Government Decree 110/2020 (14 April) and send it to the Authority for approval.
i) If the Authority does not approve the restriction plan submitted by the designated transmission system operator, the last approved Restriction Order shall remain in force until the new Restriction Order is accepted.
j) The designated transmission system operator, in cooperation with the transmission system operator and distribution system operators, shall revise the rejected Restriction Order in accordance with the modification requirements specified by the Authority within 15 business days and submit the same to the Authority for approval.
k) The transmission system operator and distribution system operators shall report any changes in their restriction proposal (with special regard to any change in the restriction categories and in the name and contact details of the person in charge of restrictions) to the designated transmission system operator within 15 business days. If the modification is accepted, the designated transmission system operator shall send the modified Restriction Order to the Authority.

4.3.4. Execution of restriction

a) A restriction may be ordered in case of the declaration of an emergency level.
b) A restriction may be ordered before and during the gas day.
c) If the sources offered by the network users and the requested strategic natural gas reserve together do not enable the maintenance of the hydraulic balance, the designated transmission system operator shall, on the proposal of the transmission system operator, decide to impose restrictions. A restriction may be ordered orally or in writing. The designated transmission system operator shall confirm its oral order in writing to the transmission system operator and the distribution system operators within 1 business day. If the notification and, based thereon, the designated transmission system operator's instruction is given orally, an audio recording shall be made thereof and kept for the Authority pending verification of the legitimacy of the restriction.
d) The designated transmission system operator shall manage natural gas sources in such a way that after the emergency the continuity of national natural gas supply can be maintained until the first injection period of commercial underground storages.
e) The designated transmission system operator shall, with the use of the current Restriction Order approved by the Authority, notify the transmission system operator and the territorially competent distribution system operator of the request for restriction, specifying:

    i. the restriction category; and
    ii. the location of the restriction (gas delivery station), if a regional restriction is imposed;
    iii. the date of the restriction;
    iv. the percentage of the restriction category imposed;
    v. the conditions of usability of capacities indicated in Category VII.

f) Within 30 minutes of ordering the restriction, the transmission system operator and the territorially competent distribution system operator shall notify, orally or in writing, the network users served by them and subject to restriction and indicating the percentage of the restriction category. The transmission system operator and the territorially competent distribution system operator shall confirm in writing the verbal order within 1 business day.
g) Users assigned to Categories I-IV shall be notified, both orally and by email, by the system operator with which they have a contractual relationship within 1 hour of ordering the restriction.
h) Users assigned to Categories V to VII shall be notified by the designated transmission system operator through the national news agency within 1 hour of ordering the restriction.
i) The designated transmission system operator shall inform the Authority in writing without delay but no later than within 24 hours of the imposition of the restriction, the severity of the disruption and any additional measures taken or planned to maintain the system balance.
j) Once the restriction has been ordered, the capacities in the column "Capacity contracted on the transmission system but not linked to users (m^3/h)" of the Restriction Order shall also be restricted at the same time as the capacities in Category I.
k) The transmission system operator and the territorially competent distribution system operator shall verify the implementation of the restriction at the user's off-take point by

remote or on-site reading of the gas meter. If the inspection reveals a failure to comply with the restriction statement, the system operator shall be entitled and obliged to interrupt off-take by the network user.

l) In case of restrictions, the operator of the direct line shall also implement the measures specified by the designated transmission system operator.
m) Upon termination of the reason for the restriction, the designated transmission system operator shall immediately notify the transmission system operator and the territorially competent distribution system operator about lifting the restriction.
n) The transmission system operator and the territorially competent distribution system operator shall notify the users affected by the restriction and the network users supplying these users of the lifting of the restriction, within 1 hour after notifying the designated transmission system operator.
o) During the period of the restriction, the designated transmission system operator shall provide regular information on the restriction on its website.
p) The system operator ordering the restriction shall, at the request of the restricted users, issue a certificate on the duration of restriction.
q) The designated transmission system operator's report prepared after the lifting of the restriction shall include:

i. the reason for ordering the restriction;
ii. the circumstances in which the situation calling for restrictive arose;
iii. a detailed description of the measures taken to avoid the restriction;
iv. a chronological listing of the measures taken;
v. the restricted category(ies);
vi. the restricted capacities;
vii. the designated transmission system operator’s evaluation regarding the ordering and implementation of the restriction (a summary evaluation of the work of the persons taking part in implementation and the willingness to cooperate of the licensees affected by the restriction);
viii. information on the documentation of the measures related to the restriction; and
ix. a report on source management measures.

r) The Authority may accept the report or return it to the designated transmission system operator for supplementation, indicating the subject of the supplementation.
s) The designated transmission system operator shall submit the supplemented report to the Authority within 4 business days.
t) The user or the natural gas trader supplying the user, both restricted before the gas day, shall not submit nominations and renominations for the natural gas transmission capacities restricted by the designated transmission system operator until the restriction is lifted.
u) Users or the natural gas traders supplying them, both restricted during the gas day, shall not reduce the injection to the transmission system at the source point, except as instructed by the designated transmission system operator.
v) On the day of restriction, the excess gas fed during the restriction to the transmission system by the network user supplying the restricted user but not off-taken shall be charged by the transmission system operator at the average price weighted in accordance with paragraph 4.3.5.1 g).

4.3.5. Natural gas supply crisis

4.3.5.1. Nomination, balancing, allocation and settlement in case of emergency level

a) Network users shall consult with neighbouring network operators, producers and trading partners in order to ensure the availability of sources. Network users shall nominate their available sources in respect of the entry points on the transmission system operator's Information Platform.
b) For exit points, network users shall perform nominations in accordance with paragraph 2.2.1 of the Code.
c) Against the non-nominated and available entry point capacities booked by the network users, the transmission system operator shall provide interruptible capacity to natural gas traders who do not have a capacity booking or who use their full capacity and offer source surplus.
d) At the entry points, the network user shall nominate all its possible sources above the entry level balancing the restricted delivery side, to the extent agreed with the transmission system operator.
e) In the event of an emergency, if the operation of TP and the organized natural gas market is suspended, all network users shall settle directly with the transmission system operator their gas-day balancing natural gas quantity. During settlement, an emergency balancing natural gas price specified in the points below shall be applied.
f) In case of emergency level and the suspension of TP and the organized natural gas market, the network user shall inform in a credible manner the designated transmission system operator and the Authority of the selling price of the offered natural gas expressed as an EUR/MWh unit price per entry point, by 4.00 a.m. before the start of the gas day, following nomination according to paragraph a) and b), in a data table in standard use by the designated transmission system operator, which shall be made available by the Authority and the designated transmission system operator on their websites. The data table shall be sent to the Authority's email address foldgazfelugyelet@mekh.hu and the designated transmission system operator's email addresses flowcontrol@fgsz.hu and rielsz@fgsz.hu.
g) In the case of network users having source surplus after allocation, the transmission system operator shall determine the weighted average price (P_{shforr}) of all sources allocated to the network user. The source surplus allocated to the network user ($Q_{shforrtöbb}$) shall be considered as the amount of natural gas used for balancing purposes at this weighted average price. By no later than the 15th day of the month following the lifting of the emergency, the transmission system operator shall draw up a report on the utilization of the source surplus and send the same to the network users for signature. On the basis of the returned signed report, the transmission system operator shall pay the invoice sent by the network user with source surplus by the deadline specified in the transmission system operator's business code.
h) The price of emergency balancing natural gas shall be determined by the designated transmission system operator as the volume-weighted average price of the source quantities and prices determined in accordance with paragraphs f) and g), inclusive of the quantity of strategic natural gas reserve (Q_{strat}) and its price specified in the Decree

(P_{strat}) according to the following formula, which price shall not exceed the maximum price laid down by a ministerial decree:

,

$$P_{Válkieg} = \frac{\sum P_{Shforr} \times Q_{Shforrtöbb}}{\sum Q_{Shforrtöbb}}$$ EUR/MWh, where:

$P_{Válkieg}$: emergency balancing gas price (EUR/MWh)

P_{Shforr}: weighted average price of network user's source surplus (EUR/MWh)

$Q_{Shforrtöbb}$: source surplus allocated to the network user

i) Network users with supply shortage shall purchase the amount of natural gas necessary for the supply of their users from the transmission system operator at an emergency balancing natural gas price. The purchase of emergency balancing natural gas shall be accounted for as described in the transmission system operator's business code.
j) In respect of settling accounts for natural gas sales and receipts against the balancing linepack, the transmission system operator shall be considered a network user with source surplus/supply shortage.
k) In the event of an emergency, network users shall not be charged a nomination imbalance surcharge.