



# **CONSULTATION DOCUMENT**

IN FULFILMENT OF ARTICLE 26 OF COMMISSION REGULATION (EU) 2017/460 OF 16 MARCH 2017 ESTABLISHING A NETWORK CODE ON HARMONISED TRANSMISSION TARIFF STRUCTURES FOR GAS.

**WARSAW, AUGUST 2018**

## Table of content

Introduction .....	3
Final consultation – schedule .....	3
Consultation document (the content) .....	6
1. THE DESCRIPTION OF THE REFERENCE PRICE METHODOLOGY .....	8
2. ADJUSTMENTS FOR ENTRY POINTS FROM AND EXIT POINTS TO STORAGE FACILITIES AND AT ENTRY POINT FROM LNG FACILITY. ....	12
3. INDICATIVE REFERENCE PRICES FOR YEAR 2020.....	13
4. COST ASSESSMENT ANALYSIS.....	14
5. THE DESCRIPTION OF THE TARIFF MODEL .....	15
6. THE COMPARISON OF THE PROPOSED REFERENCE PRICE METHODOLOGY AND THE CWD METHODOLOGY DESCRIBED IN ARTICLE 8 OF THE TAR NC.....	17
7. THE INDICATIVE INFORMATION ON THE ALLOWED REVENUE USED TO CALCULATE THE INDICATIVE REFERENCE PRICES FOR YEAR 2020. ....	18
8. COMMODITY-BASED TRANSMISSION TARIFFS .....	20
9. COMPLEMENTARY REVENUE RECOVERY CHARGE .....	20
10. INFORMATION ON NON-TRANSMISSION SERVICES PROVIDED TO NETWORK USERS .....	20
11. THE COMPARISON BETWEEN THE TRANSMISSION TARIFFS FOR YEAR 2019 AND THE PROPOSED INDICATIVE REFERENCE PRICES. ....	21
12. FIXED PAYABLE PRICE OFFERED UNDER A PRICE CAP REGIME .....	22

## **Introduction**

Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas contains rules concerning the application of the reference price methodology and the calculation of reserve prices for standard capacity products. The union-wide rules having the objectives of contributing to market integration and enhancing the security of supply and promoting the interconnection between gas networks shall be fully implemented in the Member States by 31<sup>st</sup> May 2019.

The aim of the TAR NC is the harmonisation of the Member States transmission operators tariff structures and designating a set of instruments enabling the comparison of the transmission tariffs used across EU countries (such as CAA described in Article 5 and CWD described in Article 8). The code allows TSOs to individually choose the parameters of the reference price methodology, taking into account the gas market development level and the network complexity.

Following the code approach and bearing in mind customer benefits, GAZ-SYSTEM chose the methodology, described in detail later in this document, that would fulfil the requirements of the TAR NC but also would minimize the changes necessary in settlement of the transmission services. Such actions of GAZ-SYSTEM are taken to protect the customers from changes in the level of tariffs and to ensure the stability of the conditions for the provision of transmission services. The applied solutions do not limit the cross system trade while providing long term signals for transmission system development.

The consultation of the reference price methodology process aims at a better understanding of the rules for setting the transmission tariffs as well as changes implemented in the methodology and the level of tariffs.

### Final consultation – schedule

In accordance with the provisions of the TAR NC and pursuant to the decision of the President of the National Regulatory Office (hereinafter: URE) dated 16<sup>th</sup> July 2018 GAZ-SYSTEM was appointed to conduct the periodic consultation described in Article 26 of the TAR NC. The document describing in detail the proposed reference price methodology is published within the final consultation process.

The consultation process, the decision approving the proposed reference price methodology and the calculation of the proposed tariff for year 2020 consists of the following stages:

- Final consultation – minimum duration – 2 months 28 August – 31 October 2018
- Publication of the responses received in the consultation process – within one month following the end of the final consultation till 30 November 2018
- The evaluation and analysis of the consultation document by ACER – within 2 months following the end of the final consultation till 31 December 2018
- The approval and publication of the motivated decision of the President of URE - within 5 months following the end of the final consultation till 31 March 2019
- Recalculating the tariff based on the approved reference price methodology, decision of the President of URE approving the tariff for 2020. 1 April – 31 May 2019
- Publication of the tariff for year 2020 (30 days before the annual yearly capacity auction) 31 May 2019
- Yearly capacity auction 1 July 2019
- Tariff enter into force 1 January 2020

The time frames of the schedule were calculated from the date of the complete implementation of the provisions of the TAR NC – 31<sup>st</sup> May 2019 (the minimum periods indicated in the regulation 2017/460 were taken into account).

According to the Article 29 of the TAR NC GAZ-SYSTEM shall publish the reserve prices calculated based on the methodology approved in the consultation process by the President of URE, not later than 30 days prior to the yearly capacity auction that is the first Monday of July (1<sup>st</sup> July 2019). The published reserve prices will be binding at least until the end of the gas year (2019/2020) covered by the auction.

Article 27 (5) of the TAR NC stipulates that the periodic consultation should be repeated at least every five years starting from 31<sup>st</sup> May 2019. Hence the methodology detailed below describes the proposed method of calculating the reference prices for standard capacity products that will be binding for a maximum of 5 years, unless any circumstances requiring changes in applied tariff model occur.

In the consultation procedure commencing on 28<sup>th</sup> August with the publication of this consultation document and lasting until 31<sup>st</sup> October 2018 the relevant stakeholder may send consultation responses to the following mailbox [nctar@gaz-system.pl](mailto:nctar@gaz-system.pl).

According to Article 26 (2) of the TAR NC the deadline for submitting the responses concerning the proposed reference price methodology is the end date of the final consultation – 31<sup>st</sup> October 2018.

Pursuant to the provisions of the TAR NC replies submitted in response to the consultation shall include a non-confidential version suitable for publication within the following stage of the procedure.

In order to render the consultation process more effective the Consultation document, available on the website <http://en.gaz-system.pl/customer-zone/tariff/tar-nc-consultation/> is published in Polish and English.

In case of any inconsistencies between the Polish and English version, the Polish version of the document shall prevail.

Within one month following the end of the final consultation GAZ-SYSTEM shall publish the responses received in the consultation procedure and their summary. According to provisions of the TAR NC in order to render the consultation process more effective, the summary should be provided in English.

Within two months following the end of the final consultation, ACER (Agency for the Cooperation of Energy Regulators) shall publish and send the conclusion of its analysis of the consultation document checking if the mentioned document fulfils the following requirements:

- (a) whether all the information referred to in Article 26(1) was published;
- (b) whether the elements consulted on in accordance with Article 26 comply with the following requirements:
  - whether the proposed reference price methodology complies with the requirements set out in Article 7;
  - whether the criteria for setting commodity-based transmission tariffs as set out in Article 4(3) are met;
  - whether the criteria for setting non-transmission tariffs as set out in Article 4(4) are met.

The Agency shall send its conclusions to the relevant entity responsible for conducting the consultation process (in this case GAZ-SYSTEM S.A.), and to the European Commission - preserving the confidentiality of the commercially sensitive information.

Within five months following the end of the final consultation, the national regulatory authority, acting in accordance with Article 41(6)(a) of Directive 2009/73/EC, shall take and publish a motivated decision on all items set out in Article 26(1). Upon publication, the national regulatory authority shall send its decision to the Agency and the Commission.

**Approved reference price methodology constitutes the basis for calculating the tariff for gaseous fuels transmission services for the maximum period of 5 years.**

Consultation document - the content

According to the requirements of Article 26 of the TAR NC the consultation document published within the final consultation shall contain the following information:

(a) the description of the proposed reference price methodology as well as the following items:

- the indicative information set out in Article 30(1)(a), referring to parameters used in the applied reference price methodology that are related to the technical characteristics of the transmission system such as: technical capacity at entry and exit points and associated assumptions; forecasted contracted capacity at entry and exit points and associated assumptions; the quantity and the direction of the gas flow for entry and exit points and associated assumptions, such as demand and supply scenarios for the gas flow under peak conditions; the structural representation of the transmission network with an appropriate level of detail; additional technical information about the transmission network such as the length and the diameter of pipelines and the power of compressor stations. The description shall also include the justification of the used parameters related to the technical characteristics of the system and the corresponding information on the respective values of such parameters and the assumptions applied.
- The value of the proposed adjustments for capacity-based transmission tariffs pursuant to Article 9 of the TAR NC.
- The indicative reference prices subject to consultation – tariff for year 2020.
- The results, the components and the details of these components for the cost allocation assessments set out in Article 5.
- The assessment of the proposed reference price methodology in accordance with Article 7 of the TAR NC.
- Comparison of the proposed reference price methodology and the capacity weighted distance in reference to indicative reference prices, in case the proposed reference price methodology differs from the methodology described in Article 8 of the TAR NC.

- (b) Indicative information mentioned in Article 30(1)(b)(i), (iv), (v) concerning allowed or target revenue of the transmission system operator, the transmission services revenue, the capacity-commodity split of the revenue, entry-exit split of the revenue and cross-border-domestic split calculated in accordance with Article 5 of the TAR NC.
- (c) Where commodity-based transmission tariffs are proposed – the manner in which they are set, the share of the allowed or target revenue forecasted to be recovered from such tariffs, the indicative commodity -based tariffs, if applicable.
- (d) The description of the non-transmission tariff methodology, the share of the allowed or target revenue forecasted to be recovered from such tariffs, the manner in which the associated non-transmission services revenue is reconciled as referred to in Article 17(3) and the indicative non-transmission tariffs for non-transmission services provided to network users if such services are provided.
- (e) the indicative information set out in Article 30(2) explaining the difference in the level of transmission tariffs for the same type of transmission service applicable for the prevailing tariff period and for the tariff period for which the information is published. Moreover, information about the estimated difference in the level of transmission tariffs applicable for the same type of transmission service for the tariff period for which the information is published and for each tariff period within the remainder of the regulatory period.
- (f) the proposed index, the proposed calculation and the manner the revenue derived from the risk premium is used, provided that in refer to the existing capacity the fixed payable price approach referred to in Article 24(b) is considered to be offered under a price cap regime. Moreover, information at which interconnection point(s) and for which tariff period(s) such approach is proposed as well as the description of the process of offering capacity at an interconnection point, where both fixed and floating payable price approaches referred to in Article 24 of the TAR NC are proposed.

The document published within the final consultation is submitted to ACER for the analysis and evaluation whether it complies with the requirements set out in Article 27 (1) and (2) of the TAR NC. This document will constitute the base for the President of URE when taking the motivated decision, pursuant to Article 27 (1) and (2) of the TAR NC, approving the proposed reference price methodology.

At the same time, it should be emphasized that pursuant to the decision of the President of URE appointing GAZ-SYSTEM as the entity responsible for conducting the consultation procedure, URE will not conduct distinct consultation concerning the reference price methodology. Nevertheless, at the same time as the final consultation carried out by GAZ-SYSTEM, URE will conduct a consultation with the national regulatory authorities of all directly connected Member States and the relevant stakeholders in scope of Article 28 of the TAR NC.

The consultation carried out by URE will cover the following issues:

- the level of multipliers,
- the level of seasonal factors and the calculations set out in Article 15, if applicable,
- the levels of discounts set out in Articles 9(2) and 16 of the TAR NC.

## **1. THE DESCRIPTION OF THE REFERENCE PRICE METHODOLOGY**

In 2011 GAZ-SYSTEM launched the transmission tariffs calculation ENTRY-EXIT model for the first time. In 2014 the model used was fully adapted to the requirements of the European regulations assuming charging capacity-based tariffs at entry points to the transmission system, though discounted charges at entry points from storage facilities and capacity-based tariffs at exit points from the transmission system, though discounted charges at exit points to storage facilities.

The proposed reference price methodology assumes charging only capacity-based tariffs, in accordance with the Polish Regulation of the Minister of Economy of 15<sup>th</sup> March 2018 concerning detailed principles of tariff design and calculation, and settlements in gas trade (hereinafter: tariff regulation).

Tariff rates based on the contracted capacity will be charged at all entry points to the transmission system, excluding the entry point from the terminal LNG and at all exit points from the transmission system.

The cost allocation methodology, proposed by GAZ-SYSTEM, is the *postage stamp* method. It assumes that the costs are allocated to particular points of the transmission system based on one cost driver – contracted capacity. Due to the fact that GAZ-SYSTEM applies the *ex-ante* 50/50 ENTRY-EXIT split, the capacity-based charge will be equal at all entry points (excluding the entry points from storage facilities and the entry point from terminal LNG) and equal at all exit points (excluding exit points to storage facilities).

For the reference prices charged at entry points to the transmission system from storage facilities and at exit points from the transmission system to the storage facilities GAZ-SYSTEM applies the discount described in detail in point 2 of this document.

For the reference prices charged at entry point to the transmission system from the terminal LNG the discount described in detail in point 2 of this document applies.

The choice of the *postage stamp* method was supported by the following aspects:

- The mitigation of the changes affecting GAZ-SYSTEM customers and the predictability of the used reference price methodology are ensured mostly by the fact that the proposed model is mainly based on the methodology used by GAZ-SYSTEM since 2014.
- The prevailing volume of the gas flow transmitted by the Polish network is the intra-system gas flow – there is no excessive risk of cross-subsidisation between intra and cross-system network use due to equal charges at interconnection points and points other than interconnection points. It reflects in the cost assessment analysis conducted pursuant to Article 5 of the TAR NC. The usage of the *postage stamp* method does not affect the cross-system trade in any way. The proposed charges calculated, based on this method, are equal regardless of whether the gas is being transmitted to a local exit point or an interconnection point.
- The high level of complexity of the transmission network – the transmission network operated by GAZ-SYSTEM is highly meshed with several mutual interconnections. In two gas network subsystems (subsystem of high-methane gas E and subsystem of low-methane gas Lw) the company operates 67 entry points and 983 exit points. Various flow scenarios – various directions of supply, due to the development of the interconnection points located on the western border of Poland, the development of the Terminal LNG and the building of the Baltic Pipe, it will be possible to supply any exit point in the system from each entry point. Such a meshed network allows to assume that all the network users equally benefit from the system and therefore should proportionally participate in the operational and development costs.

The table 1A presents the technical parameters describing the transmission system operated by GAZ-SYSTEM.

**Table 1A**

Technical information about the transmission network - the length and the diameter of pipelines

Data valid at the end of June 2018			
Diameter	Length [km]		
	E Gas	Lw Gas	Total E and Lw
up to DN 200	1 915.33	373.20	2 288.53
DN 250 - 400	3 467.72	282.21	3 749.92
DN 500 - 800	4 890.71	56.30	4 947.01
DN 1000	77.28	-	77.28
<i>Sum</i>	10 351.03	711.71	11 062.74

Technical information about the transmission network - compressor stations

Data valid at the end of June 2018	E-gas	Lw-gas
Quantity	15	-
Power [MW]	138.4	-
Number of entry points*	67	
Number of exit points*	983	

\* The data valid at 31 December 2017.

Detailed map of the transmission system operated by GAZ-SYSTEM is available on the website:

<https://swi.gaz-system.pl/swi/public/#!/gis/map/preview?id=10059&lang=en>

- The simplicity and clarity of the *postage stamp* method contributes to the transparency of the tariff charges and mitigates the possibility to manipulate the parameters used in the methodology and therefore is recommended by the code.

In GAZ-SYSTEM's opinion the recommended reference price methodology fulfils all the requirements set out in Article 7 of the TAR NC.

### 1.1. COST DRIVERS

The contracted capacity is the only cost driver used in the reference price methodology recommended by GAZ-SYSTEM, assuming the *ex-ante* Entry-Exit split equals 50/50. Charging only capacity-based tariffs for the gas transmission services complies with the provisions of Article 4 of the TAR NC and Articles 12 (1) and 13 of the Polish tariff regulation. The total amount of the contracted capacity being a base for reference price calculation for tariff year  $n+1$  equals the aggregate of:

- total capacity contracted based on yearly standard capacity products for firm and interruptible capacity as on the date of the tariff proposal submission in year  $n$ , and
- the level of total capacity contracted, based on quarterly and monthly standard capacity products for firm and interruptible capacity, booked in year  $n-1$ , prior to year  $n$  when the tariff proposal is submitted,

separately for entry and exit points:

- in the high-methane gas E subsystem and low-methane gas Lw subsystem,

and accordingly:

- entry points from and exit points to storage facilities in the high-methane gas E subsystem.

The calculation of the indicative reference prices for year 2020 is based on the following values:

- total capacity contracted based on yearly standard capacity products for firm and interruptible capacity as on 1<sup>st</sup> August 2018,
- the level of total capacity contracted, based on quarterly and monthly standard capacity products for firm and interruptible capacity, booked in 2017,

The below table presents contracted capacities being a base for the calculation of the indicative reference prices for year 2020.

**Table 1B**

*Contracted capacity for entry and exit points - forecast [kWh/h]\**

**Year 2020**

ENTRY

Entry points capacity - E gas (UGS excluded)	21 552 732
Entry points capacity - UGS (E gas)	21 521 889
Entry points capacity - Lw gas	1 375 942
Entry points capacity - LNG	6 370 890

EXIT

Exit points capacity - E gas (UGS excluded)	48 267 544
Exit points capacity - UGS (E gas)	12 551 184
Exit points capacity - Lw gas	1 869 884

\* a discount of 80% at points connected to UGS and a discount of 100% at LNG entry point apply. The discounts are described in detail in point 2 of the document.

## **2. ADJUSTMENTS FOR ENTRY POINTS FROM AND EXIT POINTS TO STORAGE FACILITIES AND AT ENTRY POINT FROM LNG FACILITY.**

### 2.1. DISCOUNT FOR STORAGE FACILITIES

Article 9 (1) of the TAR NC allows the application of a discount at entry points from and exit points to storage facilities. For the reference prices charged at the above-mentioned points, as for the time being, a discount of 80% will be applied. This discount covers the benefits and the costs that storage facilities assure to the whole system and contributes to effective usage of storage facilities.

Determining the level of the discount applied at entry points from and exit points to storage facilities, the overall benefits that these installations provide to the transmission system were taken into account, such as:

- the assurance of the stability and integrity of the transmission system,
- the assurance of the flexibility during peak demand for gas both in the winter season and daily peaks,
- the location in the vicinity of main demand areas makes the storage facilities the most reactive sources of supply, that might be used to cover the daily gaseous fuel demand increases.

Taking into consideration the above-mentioned arguments, in the reference price methodology being subject to this consultation, a discount of 80% at entry points from and exit points to storage facilities was applied.

All the storage facilities are connected only to the transmission system. There are no storage facilities connected to both transmission and distribution networks.

### 2.2. DISCOUNT FOR THE LNG FACILITY

According to the provisions of Article 28 of the TAR NC, the national regulatory authority is responsible for conducting the consultation on the level of discount applied at entry points from the LNG facilities.

In the reference price methodology, presented in this document, a discount of 100% at entry point from LNG facility was applied. It is in line with the provisions of Article 9 (2) of the TAR NC which allows the application of a discount at entry points from the LNG facilities in order to improve the security of gas supplies.

Implemented by the decision of the President of URE dated 9<sup>th</sup> June 2016, LNG Terminal's support mechanism consisting of the 100% discount in the capacity-based tariff applied at the

entry point from the terminal, has significantly decreased the market entry barriers for the LNG. The rationale for using the zero rate at this entry point was the fact that LNG Terminal, as the alternative source of supply, supports the development of the gas market competition. The usage of the LNG Terminal also creates possibilities for LNG entities operating worldwide to enter the Polish gas market. Increased competition in gas supply improves the trading positions of the shippers in Poland.

The gas market in Poland is a medium-sized market, highly dependent on a single source of gas supply. The national natural gas production constitutes only 27% of the national gas consumption. Despite the development of the interconnection points located on the western and southern borders of Poland, the eastern border is still the main direction for gas import. The high level of dependence on a single source of supply influences the gas prices in Poland.

The mechanism described above, implemented from the moment the LNG facility in Świnoujście was launched, has been sustained by consecutive decisions of the President of URE approving tariffs for gaseous fuels transmission in subsequent years.

Due to the above, in the indicative reference price for 2020 calculation, a discount of 100% is applied on the entry point from the LNG facility to the transmission system.

### 3. INDICATIVE REFERENCE PRICES FOR YEAR 2020.

The below table presents the indicative reference prices proposed by GAZ-SYSTEM for year 2020, calculated based on assumptions described in detail within this consultation document.

**Table 3A**

<i>Indicative reference prices</i>	
<b>Physical Entry Points / Physical Exit Points</b>	<i>Indicative reference price [PLN/(MWh/h) per h]</i>
<i>High-methane gas E subsystem</i>	
Entry Points	3.517
Exit Points	1.791
Entry - storage facilities	0.703
Exit - storage facilities	0.358
LNG entry point	-
<i>Low-methane gas Lw subsystem</i>	
Entry Points	2.105
Exit Points	1.549

#### 4. COST ASSESSMENT ANALYSIS

GAZ-SYSTEM conducted the cost assessment analysis with regard to cost drivers applied in the proposed methodology, the allowed revenue and the indicative reference prices for 2020. Due to characteristics of the low-methane gas Lw subsystem, the company has only conducted the cost assessment analysis for the high-methane gas E subsystem. The rationale for this approach is the fact that there are no interconnection points in the low-methane gas Lw subsystem. Therefore, the low-methane gas is used only to supply the users of this system.

The intra-system revenue taken into account while conducting the cost assessment analysis is the revenue charged only at one point – Hermanowice kier. Ukraina – this is the only interconnection exit point where the capacity is contracted.

The value of the capacity cost allocation comparison index equals 9.96%. This means that the allowed degree of cross-subsidisation between intra-system and cross-system network use, set out in Article 5 (6) of the TAR NC at the level of 10%, is not reached, therefore the proposed reference price methodology does not contribute to such cross-subsidisation.

In order to conduct the cost assessment analysis, the company has made the following assumptions concerning the intra-system and cross-system network use:

- The amount of capacity contracted at exit points attributed to the cross-system network use equals the capacity contracted at Hermanowice kier. Ukraina interconnection point, taken into account in the indicative reference price calculation for year 2020.
- The amount of capacity contracted at entry points attributed to the cross-system network use was allocated proportionally to all entry points, based on the share of the capacity contracted at particular point to the total capacity contracted at entry points (*pro rata*).
- The amount of capacity attributed to the intra-system network use, according the CAA methodology, equals the difference between the overall capacity booked respectively at entry and exit points and the capacity attributed to the cross-system network use.

Based on the above assumptions and the indicative reference prices the respective revenues for intra-system and cross-system network use were calculated.

The table 4A presents the cost allocation assessment calculation, according to provisions of Article 5 of the TAR NC.

**Table 4A**

Cost allocation assessment		
Year 2020		
<b>Revenues recovered from:</b>		
intra-system network use	[thous PLN]	1 525 065
cross-system network use	[thous PLN]	68 287
<b>Cost drivers - capacities contracted within intra- and cross-system network use</b>		
intra-system network use	[kWh/h]	105 969 675
cross-system network use	[kWh/h]	4 294 564
<b>Capacity ratios</b>		
intra-system network use	[PLN/kWh/h]	14.39
cross-system network use	[PLN/kWh/h]	15.90
<b>CAA comparison index</b>		
<b>COMP</b>	<b>[-]</b>	<b>9.96%</b>

## 5. THE DESCRIPTION OF THE TARIFF MODEL

The calculation of the reference prices for standard capacity products will be based on Entry- Exit model and the *postage stamp* cost allocation methodology.

The company plans to recover all the costs estimated for the tariff year charging capacity-based tariffs (the breakdown between capacity- and commodity-based tariffs equals 100/0). The revenue set for respective subsystems is divided in the first step by the Entry-Exit split, equal 50/50, into the revenue to be recovered at entry points and the revenue to be recovered at exit points, separately for both subsystems.

Once the revenues planned to be recovered respectively from entry and exit points to and from high-methane gas E and low-methane gas Lw transmission subsystem are set, the capacity-based reference prices can be calculated.

This calculation is done by dividing the revenue allocated to the relevant type of points by the cost driver – contracted capacity. According to the proposed reference price methodology, GAZ-SYSTEM applies a discount of 80 % both at entry points from and at exit points to the storage facilities and a discount of 100% at the entry point from the terminal LNG. The range of the adjustments is described in detail in point 2 of this consultation document.

The application of the discount at entry points from and exit points to the storage facilities of 80% in comparison to prices applied at normal entry and exit points is done in the following manner. In order to allocate the revenue planned to be recovered from entry points from the storage facilities, the proportion of capacity contracted at entry points to high-methane gas E subsystem is calculated. Such proportion is calculated based on 100% of the capacity contracted at entry points and 20% of the capacity contracted at entry points from storage facilities. In the next step, in order to calculate the reference prices applicable at entry points from storage facilities, the cost allocated to these points, calculated as described above, should be divided by the total amount of capacity contracted at entry points from storage facilities. The reference prices, assuming the discount of 80%, equals 1/5 of the reference prices applied at normal entry or exit points. The reference prices for exit points to the storage facilities should be calculated analogously.

**Tabela 5A**

<i>Indicative reference price calculation</i>		Gas E	Gas Lw
<b>Indicative allowed revenue</b>	<b>[m PLN]</b>	<b>1 593.4</b>	<b>50.7</b>
Revenue recovered from Entry points	[m PLN]	796.68	25.37
Revenue recovered from Exit points	[m PLN]	796.68	25.37
<b>Contracted capacities</b>			
Entry Points	[MWh/h]	21 553	1 376
Entry Points UGS	[MWh/h]	21 522	
Entry Point LNG	[MWh/h]	6 371	
Exit Points	[MWh/h]	48 268	1 870
Exit Points UGS	[MWh/h]	12 551	
<b>Revenue allocation</b>			
Entry Points	[m PLN]	664.06	25.37
Entry Points UGS*	[m PLN]	132.62	
Entry Point LNG*	[m PLN]	-	
Exit Points	[m PLN]	757.29	25.37
Exit Points UGS	[m PLN]	39.38	
<b>Reference prices</b>			
Entry Points	[PLN/MWh/h]	3.517	2.105
Entry Points UGS*	[PLN/MWh/h]	0.703	
Entry Point LNG*	[PLN/MWh/h]	-	
Exit Points	[PLN/MWh/h]	1.791	1.549
Exit Points UGS	[PLN/MWh/h]	0.358	

\* for points connected to UGS and entry point from LNG terminal discounts of respectively 80% and 100% in comparison to normal tariff for those points apply.

The simplified tariff models downloadable from GAZ-SYSTEM's website:

<http://en.gaz-system.pl/customer-zone/tariff/tar-nc-consultation/> enable the calculation of the proposed indicative reference prices for standard capacity products for year 2020, as well as their estimation in the following year, with the possibility to freely set such parameters as entry-exit split, capacity-commodity split and the adjustments for storage facilities and LNG facilities, according to the algorithm described above.

#### **6. THE COMPARISON OF THE PROPOSED REFERENCE PRICE METHODOLOGY AND THE CWD METHODOLOGY DESCRIBED IN ARTICLE 8 OF THE TAR NC.**

The prices calculated using the CWD methodology and the proposed reference price methodology (*postage stamp*) are set based on the indicative allowed revenue for year 2020, equal 1 644 million PLN.

The parameters used to calculate the reference prices both in the proposed by GAZ-SYSTEM *postage stamp* methodology and the capacity weighted distance are presented in the table below.

**Tabela 6A**

*Basic assumptions for tariff calculation*

<b>Allowed revenue</b>	<b>[m PLN]</b>	<b>1 644</b>
<b>Cost allocation</b>		
Indicative allowed revenue - gas E subsystem	[m PLN]	1 593
Indicative allowed revenue - gas Lw subsystem	[m PLN]	51
Revenue recovered from commodity-based tariffs	100%	
Revenue recovered from capacity-based tariffs	0%	
Revenue to be recovered at Exit points (gas E and gas Lw)	50%	822
Revenue to be recovered at Entry points (gas E and gas Lw)	50%	822
Number of hours in the tariff year	[h]	8 760

The differences between the prices calculated based on the CWD methodology and the postage stamp methodology occur due to the following factors:

- a) The usage of different cost drivers

The reference price methodology proposed by GAZ-SYSTEM is the *postage stamp* methodology. This method assumes that costs are allocated to certain entry or exit points based on one cost driver – the contracted capacity. This results in equal prices for certain type of points, assuming *ex-ante* Entry-Exit split equal 50/50.

The reference prices calculated according to CWD methodology, indicated in the TAR NC as the counterfactual methodology, are calculated based on two cost drivers – the contracted capacity and the distances between entry points to and exit points from the transmission system.

b) The adjustments for storage facilities and LNG facility

In the reference price methodology proposed by GAZ-SYSTEM the following adjustments are applied:

- At entry points from the storage facilities to the transmission system and exit points from the transmission system to the storage facilities a discount of 80% applies. For further details please refer to the point 2 of this consultation document.
- At the entry point from the LNG terminal a discount of 100% applies, described in detail in point 2 of this consultation document.

In the counterfactual capacity weighted distance methodology, the above-mentioned adjustments for storage facilities and LNG facilities have not been applied.

The comparison of the indicative reference prices for particular points calculated based on the reference price methodology proposed by GAZ-SYSTEM and the CWD methodology are Attachment no. 1 to this document downloadable from [http://en.gaz-system.pl/fileadmin/pliki/taryfa/en/CWD\\_en.pdf](http://en.gaz-system.pl/fileadmin/pliki/taryfa/en/CWD_en.pdf).

The attached tables present only the entry and exit points for which the Company, based on historical data, forecasts capacity for 2020.

## **7. THE INDICATIVE INFORMATION ON THE ALLOWED REVENUE USED TO CALCULATE THE INDICATIVE REFERENCE PRICES FOR YEAR 2020.**

The level of the allowed revenue approved by the decision of the President of URE is set based on the cost-plus methodology and is the sum of the yearly operational costs related to transmission services and the return on the capital employed that is the percentage of the regulated asset base related to the transmission services run by GAZ-SYSTEM.

The allowed revenue is calculated for a period of 12 months and is recovered through capacity-based tariffs.

The indicative allowed revenue for year 2020, used for the indicative reference prices calculation equals 1 644 101 517.80 PLN. The detailed breakdown of the indicative allowed revenue, in accordance with the requirements set for the consultation document, is presented in the table 7A. Due to the fact that GAZ-SYSEM does not provide non-transmission services the whole indicative allowed revenue for 2020 shall be recovered from transmission tariffs.

**Table 7A**

<i>Indicative allowed revenue for year 2020</i>		
<b>Allowed revenue</b>	<b>[m PLN]</b>	<b>1 644</b>
Revenue from capacity-based tariffs	[m PLN]	1 644
Revenue from commodity-based tariffs	[m PLN]	-
<b>High-methane gas E subsystem</b>	<b>[m PLN]</b>	<b>1 593</b>
Entry points	[m PLN]	797
Exit points	[m PLN]	797
<b>Low-methane gas Lw subsystem</b>	<b>[m PLN]</b>	<b>51</b>
Entry points	[m PLN]	25
Exit points	[m PLN]	25
<b>High-methane gas E subsystem</b>	<b>[m PLN]</b>	<b>1 593</b>
Intra-system network use	[m PLN]	1 525
Cross-system network use	[m PLN]	68
<b>Low-methane gas Lw subsystem</b>	<b>[m PLN]</b>	<b>51</b>
Intra-system network use	[m PLN]	51
Cross-system network use	[m PLN]	-

#### 7.1. CAPACITY – COMMODITY SPLIT

The breakdown between the revenue recovered from capacity- and commodity-based transmission tariffs proposed by GAZ-SYSTEM in this document equals 100/0. The above-mentioned split complies with the provisions of national legislation (tariff regulation), as well as with the Article 4 of the TAR NC. It results in charging tariff based on only one cost-driver – the contracted capacity.

## 7.2. ENTRY-EXIT SPLIT

The *ex-ante* Entry-Exit split stipulates the relation between the revenue to be recovered from the capacity-based tariffs at entry and exit points. GAZ-SYSTEM plans to use the 50/50 Entry-Exit split taken into consideration in the indicative reference price methodology calculation presented within this consultation document. The Entry-Exit split ranging from 40 to 60 or from 60 to 40 may apply only in the situations of high increases in reference prices at entry or exit points.

The Entry-Exit split being subject to minor fluctuations ensures the transparency of the proposed reference price methodology and enables the network users to easily calculate the proposed tariffs as well as estimate their changes in future. With regard to existing market conditions- the gas market development level, the number of system users, GAZ-SYSTEM considers the proposed Entry-Exit split, approved in previous years by the decisions of the President of URE, non-discriminatory and supportive for both intra-system and cross-system network use.

## 7.3. INTRA-SYSTEM AND CROSS-SYSTEM NETWORK USE SPLIT

GAZ-SYSTEM does not use the *ex-ante* breakdown between the revenue to be recovered from intra- and cross-system network use. The consecutive split (*ex-post*) between the intra-system and cross-system revenues equals 96/4. The almost homogenic characteristics of the transmission is another argument for applying the *postage stamp* methodology – very limited risk of cross-subsidisation between the intra-system and cross-system network users, what is confirmed in the cost assessment analysis described in detail in point 4.

## **8. COMMODITY-BASED TRANSMISSION TARIFFS.**

GAZ-SYSTEM does not plan to charge commodity-based tariffs. This solution is in line with the provisions of national tariff regulation and is allowed by the provisions of the TAR NC.

## **9. COMPLEMENTARY REVENUE RECOVERY CHARGE.**

GAZ-SYSTEM does not use the complementary recovery charge.

## **10. INFORMATION ON NON-TRANSMISSION SERVICES PROVIDED TO NETWORK USERS.**

GAZ-SYSTEM does not provide non-transmission services and therefore does not have non-transmission tariffs.

## 11. THE COMPARISON BETWEEN THE TRANSMISSION TARIFFS FOR YEAR 2019 AND THE PROPOSED INDICATIVE REFERENCE PRICES.

The below presented reference prices binding for year the 2019 and the indicative reference prices for the year 2020 were calculated in accordance with the assumptions presented within this consultation document. The simplified tariff models prepared based on these assumptions are available from <http://en.gaz-system.pl/customer-zone/tariff/tar-nc-consultation/>.

The company would like to inform that the tariff period is equal to the regulatory period.

**Table 11A**

*The comparison of the reference prices for year 2019 and indicatice reference prices for year 2020*

Tariff Group	Indicative reference prices - year 2020 [PLN/(MWh/h) per h]	Reference prices - year 2019 [PLN/(MWh/h) per h]	difference [%]
<i>High-methane gas E subsystem</i>			
Entry Points	3.517	3.015	17%
Exit Points	1.791	1.876	-5%
LNG entry point	-	-	
UGS entry point	0.703	0.603	17%
UGS exit point	0.358	0.375	-4%
<i>Low-methane gas Lw subsystem</i>			
Entry Points	2.105	1.807	17%
Exit Points	1.549	1.625	-5%

The main factor influencing the difference in the level of transmission tariffs in year 2019 and indicative reference prices for 2020 is the level of the allowed revenue. The planned increase in the allowed revenue of 5% relates to the realisation of capital-intensive strategic investments, concerning new interconnections as well as the development of the transmission system in Poland, built in order to improve the quality and the security of the transmission services provided by GAZ-SYSTEM.

The differences between the reference prices for year 2019 and indicative reference prices for the year 2020 results from a different approach for the Entry-Exit split applied to calculate both tariffs. The Entry-Exit split applied to calculate the reference prices for the year 2019 equals 45/55.

The Entry-Exit split applied in the reference price methodology proposed by GAZ-SYSTEM for year 2020 equals 50/50. Such breakdown of the revenue to be recovered at entry and exit points does not discriminate the system users nor constitutes any barrier for intra-system or cross-system network use.

## **12. FIXED PAYABLE PRICE OFFERED UNDER A PRICE CAP REGIME**

GAZ-SYSTEM used a tariff model based on the floating payable price approved by decision of the President of URE.