

Annex to the Decision of the President of ERO
of 31 March 2022
ref. no: DRG.DRG-2.745.2.2022.JDo1

**Reference Price Methodology no 2/SGT
for transmission network owned by energy company System
Gazociągów Tranzytowych EuRoPol GAZ S.A. with its registered
office in Warsaw
from 06:00 a.m. 1 January 2023 to 06:00 a.m. 1 January 2025**

Warsaw, March 2022

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1. Preliminary information

The Reference Price Methodology (the RPM) is applied by the energy company Operatora Gazociągów Przesyłowych Gaz-System S.A. with its registered office in Warsaw, hereinafter referred to as "Operator", to calculate reference prices for the transmission network owned by System Gazociągów Tranzytowych EuRoPol GAZ S.A. with its registered office in Warsaw, hereinafter referred to as "EuRoPol GAZ".

The Operator performs operator's tasks re. transmission network owned by EuRoPol GAZ pursuant to the decision of the President of the Energy Regulatory Office of 17 November 2010, ref. no: DPE-4720-4(8)/2010/6154/BT.

The RPM for own transmission system of the Operator is described in a separate document.

The decision of the ERO President concerning the issues referred to in Article 28(1)(a) to (c) Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (OJ L 72 of 17.03.2017 p. 29), hereinafter referred to as "the Tariff Code", taking into account the results of consultations held from 31 August to 31 October 2021, concerning, among others, multipliers and seasonal factors for short-term gas transmission services and discounts used to calculate base prices of standard interruptible capacity products, has been published¹ independently of the decision on RPM referred to in Article 27(4) of the Tariff Code, to which this document is attached.

2. Legal disclaimer on the indicative nature of the data and the results of the calculations contained in this paper

Any figures relating to 2023 presented in this paper (e.g. regulated revenue, contracted capacities, reference prices) are indicative and are intended only to illustrate the impact of the adopted the RPM on the level of transmission charges. These data do not constitute the basis for calculation of the tariff during the term of validity of the RPM.

In the event of any discrepancies between the Polish and English versions of this paper, the paper drawn up in the Polish language shall prevail.

3. RPM validity term

Pursuant to Article 27(5) of the Tariff Code, the procedure including final consultation on the RPM, issuance of a decision on the RPM by the national regulatory authority, calculation of the tariff on the basis of that decision and publication thereof should be repeated at least every five years starting on 31 May 2019.

The validity term of this RPM is set at **2 years, that is from 06:00 a.m. 1 January 2023 to 06:00 a.m. 1 January 2025**². It stems from the duration of gas transmission contracts referred to in Article 22 of the Act of 26 July 2013 amending the Energy Law Act (Journal of Laws of 2013, item 984).

The two-year validity period of the RPM is the same as the methods for the Operator's own network, which will facilitate future cooperation and integration of both systems. This length of

¹ <https://www.ure.gov.pl/pl/biznes/taryfy-zalozenia/mnozniki-wspolczynniki-3/9723.Rynek-gazu-konsultacje-dotyczace-rabatow-mnoznikow-i-wspolczynnikow-sezonowych-d.html>

² Pursuant to the definition of gas day - Article 3(16) of Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 (OJ L 72/1 of 17.03.2017), hereinafter referred to as „NC CAM”.

the RPM's validity is also justified by the currently observed changes in the gas market, the rapidly changing and developing gas market in Poland. Such a period is also supported by the current unpredictability of the future use of the capacity offered in the EuRoPol GAZ transmission system, which is repeatedly pointed out by ACER in its Analysis of December 21, 2021.

Based on the applicable regulations and this methodology, the Operator calculates its tariff and submits it together with a justification to the President of the Energy Regulatory Office for approval. As a rule, the tariff period is the same as the a year (from 06:00 a.m. 1 January of the year to 06:00 a.m. 1 January the following year).

4. Description of the reference price methodology (Article 26 (1) (a) of the Tariff Code)

Pursuant to § 6(1) of Tariff Regulation³ transmission tariffs included in a tariff document are calculated for a period of 12 months. However, pursuant to Article 47(5) of the Energy Law Act, the operator shall apply the tariff since the date specified by the President of the ERO in the decision approving the tariff, not earlier than 14 days since the date of its publication.

Transmission charges are calculated based on the entry/exit model, applying the RPM based on cost drivers: planned capacity and distance, described in Article 8 of the Tariff Code – capacity weighted distance (CWD). Only fixed rates related to contractual capacity (gr⁴/kWh/h/h)⁵ for entries and exits to and from the transmission system are calculated, for high-methane gas (group E).

The application of variable rates based on fuel volumes referred to in Article 26(1)(c)(i) and Article 4(3)(a) and (b) of the Tariff Code is not envisaged.

The Operator does not plan to provide non-transmission services and therefore the RPM does not take into account the principles of calculating rates for non-transmission services referred to in Article 26(1)(c)(ii) of the Tariff Code.

The fixed payable price approach referred to in Article 26(1)(e) and Article 24(b) of the Tariff Code shall not be applied. The floating payable price approach referred to in Article 24(a) of the Tariff Code shall be applied.

Capacity-based transmission tariff adjustments, as referred to in Article 9 of the Tariff Code (Article 26(1)(a)(ii) of the Tariff Code), shall not be applied.

In accordance with Article 6(2) of the Tariff Code, as a result of the method applied a reference price is obtained. According to the definition contained in Article 3 of the Tariff Code, a reference price means the price for a firm capacity product with a duration of one year, which applies at entry and exit points and which is used to determine capacity-based transmission tariffs (i.e. rates for transmission services rendered).

Reserve prices (rates calculated on the basis of a reference price) for short-term and interruptible services shall be calculated in accordance with Articles 14 and 16 of the Tariff Code, respectively.

³ Detailed principles of tariff calculation are set forth in the Ordinance of the Minister of Energy of 15 March 2018 on detailed principles of shaping and calculating tariffs and settlements in trade in gaseous fuels (Journal of Laws of 2021, item 280).

⁴ 100 gr = 1 PLN.

⁵ According to Article 10 CAM NC

4.1. The applied RPM according to Article 8 of the Tariff Code

The capacity weighted distance RPM described in Article 8 of the Tariff Code will be applied to calculate reference prices. Due to the selection of this RPM, the comparison referred to in Art. 26(1)(a)(vi) of the Tariff Code will not be provided.

The 2020-22 RPM took into account the rights resulting from the so-called historical contracts. Due to the expiry of the last contract at the end of 2022, the new RPM takes into account the requirements of the Tariff Code, without the above-mentioned modification.

The entry/exit split, referred to in Article 30(1)(b)(v)(2) according to Article 8(1)(e) of the Tariff Code is set at 50/50.

The calculated revenue will be divided into entries and exits from the transmission system in accordance with the adopted entry/exit division. The revenue is then allocated to each entry/exit point or cluster of entry/exit points using weight of costs (Wc) calculated upon the formulas set out in Art. 8(2)(b) of the Tariff Code

After dividing the revenue allocated to individual entry/exit points by the total forecast contracted capacity and the number of hours per year, the reference price for entries/exits is obtained.

In the RPM interconnection points are taken into account:

- Kondratki–entry,
- Mallnow–entry,
- PWP–exit,
- Mallnow-exit

Kondratki–entry and Mallnow-exit are used for transit purpose. Mallnow–entry and PWP–exit are used for gas deliveries (import) to Poland.

4.2. Indicative information referred to in Article 30(1)(a) used in the RPM (Article 26(1)(a)(i) of the Tariff Code)

The RPM is based on the cost drivers of the planned capacity and the distance between entry and exit points for a given flow scenario.

The RPM uses the actual distances between the points, and in the case of the PWP-exit, the weighted average distance of this point from the Kondratki-entry and Mallnow-entry points was determined.

The PWP point is a virtual exit point from the transmission system belonging to EuRoPol GAZ to the Operator's system, which consists of 2 physical exit points: Lwówek (technical capacity - 2.46 GWh/h) and Włocławek (technical capacity - 9.11 GWh/h).

The level of forecasted contractual capacities constituting the basis for calculation of reference prices for the tariff year n+1 (the year for which the tariff is calculated) will be the sum of:

- **firm and interruptible capacities** booked for year n+1 under an Open Season procedure, resulting from long-term contracts and capacities booked under concluded auctions,
- contractual capacities booked under yearly standard capacity products for **firm and interruptible capacity** as of the date of the tariff application submission in year n,
- forecasted capacity bookings under standard yearly products for **firm and interruptible capacity** (also under long-term bookings, Open Season and auctions) for year n + 1, resulting from investments planned for commissioning in year n and n + 1, including those

resulting from the planned commissioning of new, modernized, rebuilt and expanded customer connections,

and

- the level of capacity realised under quarterly, monthly and daily standard products for **firm and interruptible capacity** in calendar year n-1 - preceding year n, in which the tariff application is submitted.

The level of transmission capacities adopted for the calculation of indicative reference prices for 2023 is presented in a table no. 1.

Table 1. The indicative transmission capacities for 2023.

Exit points		Entry points			
name	capacity [kWh/h]	Kondratki		Mallnow	
				13 517 000	
Mallnow	13 517 000	683,9 km		-	
Lwówek	1 229 427	581,6 km	412,9 km*	102,3 km	271,0 km*
Włocławek	4 553 434	367,4 km		316,5 km	

* the weighted average distance to PWP.

The weighted average distance of the PWP-exit point from the Kondratki-entry and Mallnow-entry points was calculated based on the actual distances (km) of the physical points of Lwówek and Włocławek (included in the PWP) from the Kondratki-entry point and from the Mallnow-entry point, taking into account the proportion of technical capacities for these physical points.

For the calculation of the indicative rates for 2023, capacity orders are forecast at the level of 50% of the capacity offered in annual auctions for 2023.

4.3. Indicative reference price referred to in Article 26(1)(a)(iii) of the Tariff Code

The table below shows the rates applied in 2022 and the indicative reference prices for 2023, calculated in accordance with this RPM, for entry/exit points.

Table 2. The indicative reference prices

Kalkulacja stawek	Tariff 2022 [PLN/MWh/d/d]	The indicative rates 2023 [PLN/MWh/d/d]	Change
Kondratki-entry	1,4573	2,6816	84,0%
PWP-exit	0,4825	1,4059	191,4%
Mallnow-exit	1,4573	2,5959	78,1%
Mallnow-entry	1,4573	1,2056	-17,3%

4.4. Results and components of the assessment of the cost allocation referred to in Article 5 and details of these components (Article 26(1)(a)(iv) of the Tariff Code)

There are no intra-system points in the EuRoPol GAZ network and therefore there is no obligation to assess the cost allocation referred to in Article 5 of the Tariff Code (no intra-system revenues).

Nevertheless, bearing in mind the recommendation of the ACER Analysis, the table below presents an assessment of the cost allocation assuming that the PWP point is used for intra-system needs.

Table 3. Cost allocation assessment

Cost allocation assessment	Unit	CWD
The allowed revenue	1000 PLN	757 187
distance – intra-system use - Mallnow-entry/PWP-exit	km	270,96
distance – cross-system use - Kondratki-entry/Mallnow-exit	km	683,9
capacity - intra-system use (entries + exits)	kWh/h	11 565 723
Mallnow-entry	kWh/h	5 782 862
PWP-exit	kWh/h	5 782 862
Capacity - cross-system use (entries + exits)	kWh/h	27 034 000
Kondratki-entry	kWh/h	13 517 000
Mallnow-exit	kWh/h	13 517 000
Income - intra-system use	1000 PLN	132 291
Mallnow-entry	1000 PLN	61 071
PWP-exit	1000 PLN	71 220
Income - cross-system use - (entries + exits)	1000 PLN	624 896
Kondratki-entry	1000 PLN	317 522
Mallnow-exit	1000 PLN	307 373
Cross-system commodity ratio	PLN/kWh/h/km	0,034
Intra-system commodity ratio	PLN/kWh/h/km	0,042
INDEX	%	22,1%

4.5. Assessment of the reference price methodology for compliance with Article 7 of the Tariff Code (Article 26(1)(a)(v) of the Tariff Code)

Due to the fact that the RPM will be used to calculate the reference prices on the basis of the distance weighted by the capacity, described in Art. 8 of the Tariff Code - model method - no detailed analysis of the compliance of this method with the provisions of Art. 7 of the Tariff Code will be presented.

It should also be emphasized that the simplified tariff model posted on the Operator's⁶ website enables network users to reconstruct the calculations of indicative reference prices and to forecast them. The accuracy of this forecast is limited by the uncertainty of estimates of changes in the permitted revenue and capacity orders resulting from the current situation on the European gas market. Detailed verification of the permitted revenue and capacity forecasts is carried out annually in the administrative proceedings regarding the approval of the tariff for gas transmission services.

Moreover, the adopted RPM takes into account the actual costs incurred in connection with the provision of transmission services. Based on the actual costs of providing transmission services disclosed in the financial statements audited by a certified auditor, a forecast of the costs justified for the calculation of the tariff is made.

Due to the lack of end-customers connected to the EuRoPol GAZ transmission network, there is no risk of allocating increased costs to these end-customers due to the lack of capacity orders by users using interconnection services (volume risk).

⁶ <https://www.gaz-system.pl/en/for-customers/services-in-the-tgps/tgps-tariff/tar-nc.html>

Due to the fact that distance is a significant cost factor for the network belonging to EuRoPol GAZ (the transit nature of the network - 82.5% of indicative revenues), in the current configuration of this network, the CWD method is the optimal method. The use of the postage stamp method in the current configuration resulting from the current use of this network is unjustified, moreover, it would result in an over 70% increase in fees for users importing gas fuel to Poland (Mallnow-entry/PWP-exit).

5. Indicative information referred to in Article 30(1)(b)(i), (iv) and (v) of the Tariff Code (Article 26(1)(b) of the Tariff Code)

5.1. Allowed revenue of the transmission system operator (Article 30(1)(b)(i) of the Tariff Code)

Regulated revenue approved by the President of ERO is the sum of forecast justified operating costs related to regulated activity for a given tariff year and return on capital employed.

Regulated revenue is determined for a period of 12 months in administrative proceedings on approving the tariff.

Pursuant to Article 10 (1), (2) and (3) of the Tariff Regulation, regulated revenue is covered by revenue earned from:

- a) transmission rates,
- b) fees for exceeding contracted capacity achieved during the year preceding the year in which the tariff is submitted for approval,
- c) fees for services performed at the additional demand of the customer (the quality testing of gaseous fuels supplied, interruption or resumption of the supply of gaseous fuels) achieved during the year preceding the year in which the tariff was submitted for approval,
- d) revenues from the performance of the contract referred to in Article 9h(3)(2) of the Energy Law Act, as well as performing activities resulting from the decision referred to in Article 9h(1)(9) of this act (balance of revenues and costs).

Due to the fact that the Tariff Code does not include detailed rules for determining regulated revenue, this issue will be explained in more detail in proceedings on approving the tariff.

5.2. Revenues from transmission services (Article 30(1)(b)(iv) of the Tariff Code)

The total indicative regulated income for the network of EuRoPol GAZ amounts to kPLN 757 187.

6. Indicative information referred to in Article 30(2) of the Tariff Code (Article 26(1)(d) of the Tariff Code)

Table 4. Tariff model – reference prices calculation

Natural gas transmission system	Unit	2022	2023
		Tariff application	Indicative data
Indicative calculation revenue	1000 PLN	971 733	757 187
Capacity forecast			
Kondratki-entry	MWh/yr	343 514 019	118 408 920
Mallnow-entry	MWh/yr	0	50 657 867
Mallnow-exit	MWh/yr	313 274 019	118 408 920
PWP - exit (Kondratki direction)	MWh/yr	30 240 000	0
PWP - exit (Mallnow direction)	MWh/yr	0	50 657 867
Distance			
Kondratki-Włocławek	km	367,4	367,4
Kondratki-Lwówek	km	581,6	581,6
Kondratki-Mallnow	km	683,9	683,9
Mallnow-Włocławek	km	-	316,5
Mallnow-Lwówek	km	-	102,3
Kondratki-PWP (average wighted)	km	455,2	412,9
Mallnow-PWP (average wighted)	km	-	271,0
Reference prices/transmission rates			
Kondratki-entry	PLN/MWh/d	1,4573	2,6816
PWP-exit	PLN/MWh/d	0,4825	1,4059
Mallnow-exit	PLN/MWh/d	1,4573	2,5959
Mallnow-entry	PLN/MWh/d	1,4573	1,2056
Revenue split (entry/exit)	%	51,52/48,48	50/50

7. Description of the EuRoPol GAZ transmission system.

The SGT System on the territory of the Republic of Poland is part of a 4,000 km long gas pipeline running from Russia through Belarus and Poland to Western Europe.

The transmission pipeline runs on the territory of Poland latitudinally, from east to west, from the Polish-Belarussian border in the vicinity of the village of Kondratki to the Polish-German border in the area of the village of Górzycza.

The gas pipeline route runs through the following administrative units of the country:

- 5 voivodships (podlaskie, mazowieckie, kujawsko-pomorskie, wielkopolskie and lubuskie)
- 27 poviats (counties)
- 69 gminas (municipalities).

Basic technical parameters of the Polish section of the transit gas pipeline:

- working pressure - 8.4 MPa
- length - 683,9 km
- gas pipeline diameter - DN1400

- 1 physical entry point - Kondratki
- 3 physical exit points - Mallnow, PWP (which consists of two physical points: Lwówek, Włocławek)
- 5 compressor stations with a total capacity of 400 MW - TG Kondratki, TG Zambrów, TG Ciechanów, TG Włocławek, TG Szamotuły

The development of the transmission network of the EuRoPol GAZ is presented in Operator's development plan. The planned investment projects are aimed at maintaining full technical efficiency and reliability of the operation of the network. The operator also plans to improve the integration of EuRoPol GAZ's transmission network with its own network.

The simplified scheme of the transmission network of EuRoPol GAZ is presented below.

