

TRANSPARENCY ON TRANSMISSION TARIFFS

GAS YEAR 2022-2023

Information to be published pursuant to Article 30 of Commission Regulation (EU) 2017/460

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Introduction

Commission Regulation (EU) 2017/460 of 16 March 2017 establishes a network code defining the rules for harmonized structures for gas transmission tariffs ("Tariff Network Code"), including rules on the application of a reference price methodology, on the calculation of reserve prices for standardized capacity products and on the publication requirements, among others. The publication requirements are defined in Articles 29 and 30 of the Tariff Network Code.

Article 29 refers to the information to publish before the annual yearly capacity auction, and refers to standard capacity products for firm capacity and for interruptible capacity, covering information on reserve prices, multipliers, seasonal factors and evaluation of the probability of interruption. This information must be published no later than 30 days before the annual yearly capacity auction.

Article 30 refers to the information to publish before the tariff period, and refers to the information associated with the approval of transmission tariffs for natural gas, covering information on the determination of allowed revenues and tariffs. This information must be published no later than 30 days before the tariff period ¹.

This document ² presents the information required under article 30 of the Tariff Network Code. The information required under article 29 has been published in a separate document ³.

Legal notice

The information provided in this document aims to comply with the provisions of Article 30 of Commission Regulation (EU) 2017/460 of 16 March 2017, establishing a network code on harmonised transmission tariff structures for gas, not dispensing with the consultation of the <u>ERSE Directive n.º 15/2022</u>, of 28 of June ⁴, which approves the tariffs and prices for natural gas for the gas year 2022-2023. In case of discrepancy, the information published by the ERSE Directive n.º 15/2022 prevails over the information disclosed in this document.

 $^{^{1}}$ Starting with gas year 2019-2020, the tariff period begins on October $1^{\rm st}$ and lasts for one year.

² Available at <u>Transmission tariffs transparency</u> (ERSE's webpage).

³ Available at <u>Transmission tariffs transparency</u> (ERSE's webpage).

⁴ Only in Portuguese.

Art. 30 (1)(a) Technical parameters

Pursuant to Article 30(1)(a), it is necessary to publish the parameters used in the reference price methodology which relate to the technical characteristics of the transmission system. Such parameters include the technical capacities per network point, the forecasted capacities per network point, the structural representation of the network and other parameters relevant for the reference price methodology.

Technical capacity at the entry and exit points

Table 1 presents the entry and exit technical capacities of the transmission network for four different points.

Table 1 - Technical capacity by point of the transmission network, in GWh/day

	Entry	Exit
	Littiy	LAIL
Interconnection point (Campo Maior)	134,00	55,00
Interconnection point (Valença do Minho)	10,00	25,00
LNG terminal	200,00	5,00
Underground Storage	85,68	85,68
Gas producers	-	-

Some of the underlying assumptions need to be clarified:

- the two interconnection points (Campo Maior and Valença do Minho) are bidirectional,
 presenting positive technical capabilities in both directions;
- regarding the LNG terminal, although the gas flow is unidirectional, agents may, by means of a
 contract, place gas in the terminal through a reduction of the physical flow of gas leaving the
 terminal, implying that the terminal can function as an exit point as well;
- for underground storage the same technical capacity was assumed in both directions;
- for gas producers, and although a tariff for the injection of gas into the transmission network is already being published, there is currently no information on the connection to the transmission network of gas producers.

Forecasted capacity at entry and exit points

Table 2 presents the forecasted capacities ⁵ used to determine the transmission tariffs for gas year 2022-2023. It should be noted that the last column indicates the type of capacity for the billing of the tariff for the use of the transmission system ⁶.

Table 2 - Forecasted capacities by capacity type for gas year 2022-2023

	Point	Product	2022-2023	Unit	Type
Entry	VIP Iberico	Yearly	1 579 254	kWh/day	Contracted
		Quarterly	1 270 320	kWh/day	Contracted
		Monthly	7 952 916	kWh/day	Contracted
		Daily	5 579 291	kWh/day	Contracted
		Intraday	17 129	kWh/h	Contracted
	LNG terminal	Yearly	200 000 000	kWh/day	Contracted
		Quarterly	0	kWh/day	Contracted
		Monthly	0	kWh/day	Contracted
		Daily	0	kWh/day	Contracted
		Intraday	0	kWh/h	Contracted
	Underground Storage	Daily	11 708 683	kWh/day	Contracted
		Intraday	257 200	kWh/h	Contracted
	Gas producers	Used capacity at injection	0	kWh/day	Used
Exit	VIP Iberico	Yearly	1 994 814	kWh/day	Contracted
		Quarterly	0	kWh/day	Contracted
		Monthly	6 957 274	kWh/day	Contracted
		Daily	3 039 233	kWh/day	Contracted
		Intraday	29 617	kWh/h	Contracted
	LNG terminal	Yearly	0	kWh/day	Contracted
		Quarterly	0	kWh/day	Contracted
		Monthly	0	kWh/day	Contracted
		Daily	0	kWh/day	Contracted
		Intraday	0	kWh/h	Contracted
	Underground Storage	Daily	14 343 171	kWh/day	Contracted
		Intraday	60 196	kWh/h	Contracted
	Distribution networks and HP Customers	Long Uses	187 655 628	kWh/day	Used
	HP Customers	Annual Flexible Rate - Annual Base Capacity	127 055 451	kWh/day	Used
		Annual Flexible Rate - Additional Monthly Capacity (April to September)	6 843 516	kWh/day	Used
		Flexible Monthly Rate - Monthly Capacity (October to March)	26 336 031	kWh/day	Used
		Flexible Monthly Rate - Monthly Capacity (April to September)	28 015 769	kWh/day	Used
		Daily Flexible Rate - Daily Capacity (October to March)	0	kWh/day	Used
		Daily Flexible Rate - Daily Capacity (April to September)	0	kWh/day	Used

⁵ In the case of VIP Iberico, LNG terminal and Underground storage the values presented refer to products of firm capacity.

⁶ **Contracted Capacity** - Capacity value reserved by the market agent in capacity allocation processes, constituting a capacity utilization right with a binding payment, regardless of actual use, for various time horizons. **Capacity used** - Maximum daily energy, measured at the point of delivery of the transmission grid for a given horizon (usually for the horizon of the last twelve months, except for shorter products).

Structural representation of the transmission network

Table 3 presents a geographical⁷ and a simplified diagram of the transmission network, the latter being relevant for the application of the reference price methodology.

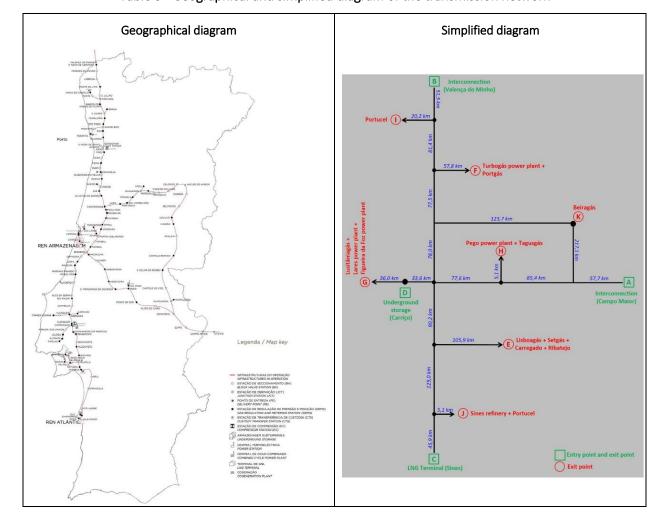


Table 3 - Geographical and simplified diagram of the transmission network

The simplified diagram is characterized by the fact that the various consumption points are grouped into seven clusters of exit points (called E to K). Table 4 summarizes the list of points identified in the simplified

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⁷ For a more detailed representation of the national transmission network visit the TSO's <u>webpage</u>.

diagram, further classifying whether the points correspond to points of entry or exit from the transmission network. ⁸

Table 4 - Points of the transmission network in the simplified diagram

Point	Type of point	Entry	Exit
A - Campo Maior	Interconnection point	•	•
B - Valença do Minho	Interconnection point	•	•
C - LNG terminal (Sines)	LNG terminal	•	•
D - Underground storage (Carriço)	Storage	•	•
E - Lisboagás, Setgás, Carregado, Ribatejo	Consumption		•
F - Portgás, Outeiro power plant	Consumption		•
G - Lusitâniagás, Lares power plant, Figueira da Foz power plant	Consumption		•
H - Tagusgás, Pego power plant	Consumption		•
I - Portucel	Consumption		•
J - Sines Refinary, Portucel	Consumption		•
K - Beiragás	Consumption		•

Given the simplified diagram in Table 3 and the list of network points in Table 4, it is possible to determine the distance matrix that measures the distances between each entry point and each exit point (Table 5). It should be noted that according to the simplified diagram the four entry points (A - D) also represent exit points from the transmission network.

Table 5 – Distance matrix, in km

Distance n	natrix										
km	Α	В	С	D	E	F	G	н	I	J	K
Α	0,0	509,0	481,8	254,3	416,9	434,0	290,2	148,2	477,8	441,0	274,9
В	509,0	0,0	549,5	321,9	484,5	190,7	357,9	371,0	71,7	508,6	334,0
С	481,8	549,5	0,0	294,7	276,8	474,4	330,7	343,8	518,2	51,1	462,8
D	254,3	321,9	294,7	0,0	229,7	246,9	36,0	116,2	290,6	253,8	235,2

Note: Rows refer to the four entry points (A - D) and the columns refer to the eleven exit points (A - K).

Other parameters relevant for the reference price methodology

The reference price methodology uses two core concepts to define reference prices, namely the concepts of effective distance and effective capacity.

⁸ Table 3 and Table 4 do not include gas producers since there is currently no information on the connection to the transmission network of these network users.

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Firstly, the **effective distance**⁹ is equivalent to the distance between two points in the network, times a multiplicative factor that will be greater than 100% if the gas flow between these two points uses additional network assets that are not measurable in terms of distance but in economic terms. This multiplicative factor is called the economic value factor.

In case of entry-exit combinations using GRMS¹⁰ the economic value factor is 131.6% to reflect the economic value of the GRMS.¹¹ For entry-exit combinations that do not use GRMS the economic value factor is 100%.

Secondly, **effective capacity**¹² is equal to the forecasted capacity for each entry point and each exit point, times a multiplicative factor that measures network utilization at that point. For a point that presents permanently a capacity equal to the technical capacity, the multiplicative factor, called the physical utilization factor, will be equal to 100%. For points whose utilization is less than technical capacity, the physical utilization factor shall be less than 100% and shall be determined by the ratio of physical flows to technical capacity.¹³

Table 6 presents the physical utilization factor per network point, where the measure of physical flows used corresponds to the average value of daily natural gas flows in the 10% of the days with highest utilization for a period of 3 years.¹⁴

⁹ Effective distance, measured in km, is given by $D_{i,j}^e = D_{i,j} \times v_{i,j}$, where $D_{i,j}$ is distance, measured in km, between an entry point i and an exit point j, and where $v_{i,j}$ is the economic value factor, set by ERSE, for the route between an entry point i and an exit point j, in order to reflect the economic value of the transmission assets used.

¹⁰ Entry-exit combinations using GRMS (gas regulation and metering stations) are all combinations that have High Pressure customers or distribution networks as their exit point.

 $^{^{11}}$ The value of 131.6% results from the fact that GRMS represent on average 24% of investments in the national transmission network. Therefore, compared to the pipelines, which represent the remaining 76%, the use of GRMS represents an additional investment of 31.6% (24% \div 76%).

Effective capacity, measured in kWh/d, is given by $K_p^e = K_p \times f_p$, where K_p is forecasted capacity, measured in kWh/d, at point p (entry point or exit point), and where f_p is the physical utilization factor, set by ERSE, at point p (entry point or exit point).

¹³ For situations where the tariff structure provides the same price for a set of points, the physical utilization factor has been calculated for these sets of points, and not for each point individually. Thus, in the case of the VIP (points A and B) and in the case of consumption points (points E through K) a joint value was calculated.

¹⁴ Information was used for the period from March 1, 2016 to February 28, 2019 (10% of the days in 3 years equals a total of 109 days).

Table 6 - Physical utilization factor, by point of the transmission network

			Technical capacity	Physical flow	Physical utilization factor
			kWh/day	kWh/day	%
Entry	Α	Campo Maior	134 000 000	121 162 499	90,4%
	В	Valença do Minho	10 000 000	9 041 978	90,4%
	С	LNG terminal (Sines)	200 000 000	178 819 192	89,4%
	D	Underground storage (Carriço)	85 680 000	42 207 941	49,3%
Exit	Α	Campo Maior	55 000 000	3 684 374	6,7%
	В	Valença do Minho	25 000 000	1 674 716	6,7%
	С	LNG terminal (Sines)	5 000 000	0	0,0%
	D	Underground storage (Carriço)	85 680 000	24 083 404	28,1%
	Ε	Lisboagás, Setgás, Carregado, Ribatejo	99 517 590	58 579 525	58,9%
	F	Portgás, Outeiro power plant	119 032 194	70 066 501	58,9%
	G	Lusitâniagás, Lares power plant, Figueira da Foz power plant	103 283 677	60 796 374	58,9%
	Η	Tagusgás, Pego power plant	50 785 037	29 893 844	58,9%
	-	Portucel	7 156 599	4 212 624	58,9%
	J	Sines Refinary, Portucel	44 610 181	26 259 108	58,9%
,	K	Beiragás	5 294 723	3 116 659	58,9%

Art. 30 (1)(b)(i,ii) Allowed revenues

The allowed revenues of the transmission system operator for the gas year 2022-2023, and the percentage change from this figure compared to the previous gas year, are summarized in the table below.

Art. 30 (1)(b)(i) Allowed or target revenue, or both, of the transmission system operator	23 908 467 € (revenues recovered)
Art. 30 (1)(b)(ii) Information related to changes in the revenue referred to in point (i) from one year to the next year	-19,6% (change of annual revenues recovered compared with gas year 2021/2022)

Art. 30 (1)(b)(iii) Revenue parameters

This section refers to a number of parameters related to the determination of the allowed revenues of the transmission system operator. The structure of the information provided follows the recommendation¹⁵ of the Agency for the Cooperation of Energy Regulators (ACER) and is divided into the following topics:

- 1. Description of the revenue methodology.
- 2. Values of the parameters.
- 3. Values of costs and expenditures that are used for setting the allowed or target revenue.

More detailed information on depreciation of assets is included in two annexes (Table 7, Table 8).

t. 30 (1)(b)(iii) A description of the methodology, including at leas	t a description of:
(a) The overall methodology, such as revenue-cap, hybrid, cost-plus or tariff benchmarking;	A price cap methodology is applied to operational expenditures, with a fixed part and a variable amount indexed to the evolution of physical variables. For CAPEX, a rate-of-return type methotodology is applied. Allowed revenues are adjusted each two years, based on real auditted values of the costs and the incomes.
(b) The methodology to set the regulated asset base;	The regulated asset base consists of the average value of assets net of investmen subsidies and amortizations and depreciations. The value of works in progress are not considered in the regulated asset base.
 i. Methodologies to determine the initial (opening) value of the assets; 	For the first regulatory period (2007) the RAB was re-evaluated by the government (ICR).
ii. Methodologies to re-evaluate the assets; iii. Explanations of the evolution of the value of the assets;	No revaluation of assets (ICR). Assets grow annually by the addition of new assets and the deduction of assets write-offs and subsidies.
(c) The methodology to set the cost of capital;	Gas TSO WACC is a pre-tax nominal. The calculation methodology for the cost of equity is the Capital Asset Pricing Model (CAPM) and the methodology for the cost of debt is the default spread. The WACC to be applied in the regulatory period 2020-2023 is indexed to the Portuguese 10 year bond benchmark and depends, in each year, on its evolution with a cap (8,80%) and a floor (4,50%).
(d) The methodology to determine the TOTEX or, if applicable, OPEX and CAPEX;	For OPEX, a price cap methodology is applied, with a fixed part and a variable paindexed to the evolution of physical variables (used exit capacity based on the damaximum over a 12 month period and an annual efficiency target of 3%). At the OPEX level, LNG transport costs by road are also considered. CAPEX is determined by the remuneration of the regulated assets base (WACC x RAB), plus amortizations and depreciation net of investment subsidies. Works in progress are not remunerated.
(e) The methodology to determine the efficiency of the cost, if applicable.	An analysis of the evolution of OPEX over the last few years is carried out to set parameters for the natural gas transport activity. Based on this evolution, the regulatory cost base is reviewed, which aims to share efficiency performance wit consumers. Based on the analysis carried out, it is also assessed whether the efficiency targets imposed to the company in the previous regulatory period are line with the level of costs achieved, and depending on the result, the efficiency factors may be reviewed. Finally, the relative efficiency position of the TSO vis-a-vis other European peers it terms is also assessed and monitored with the participation in a European benchmarking.

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¹⁵ See «<u>The internal gas market in Europe: The role of transmission tariffs</u>», ACER, April 2020, page 71.

Art. 30 (1)(b)(iii)	
(2) The values of the parameters:	
(a) Cost of equity and cost of debt or weighted average cost of capital in percentages;	Weighted average cost of capital: 4,85%
(b) Depreciation periods in years;	Depreciation rates have remained stable since gas year 2018/2019 . See table below (Annex A with average rates of depreciation by type of asset).
(c) Efficiency targets in percentages;	3%
(d) Inflation indices;	2022: 0,7%
	2023: 2,9%

Art. 30 (1)(b)(iii)			
(3) The values of costs and expenditures that are used for setting the allowed or target revenue in the local currency and in Euro of:			
(a) The regulated asset base per asset type;	526 860 818 €		
	(net weighted average asset value)		
(b) The depreciation per asset type;	See table below (Annex B with annual depreciation amounts by type of asset).		
(c) The cost of capital;	54 353 125 €		
(d) Operational expenditures.	20 436 935 €		

Table 7 - Annex A: Average depreciation rate per asset type

Asset type	Average rate of depreciation
Industrial property	5,26%
Linepack	4,94%
Land and Natural Resources	2,52%
Buildings and Other Constructions	1,69%
Basic Equipment	2,82%
Transporte Equipment	12,21%
Tools and Utensils	7,39%
Office Equipment	6,46%
Other tangible fixed assets	1,72%

Table 8 - Annex B: Average annual depreciation value per asset type

Asset type	Average annual values of depreciation by assets type (gas year)
Industrial property	1 526 316 €
Linepack	668 286 €
Land and Natural Resources	1 951 515 €
Buildings and Other Constructions	350 738 €
Basic Equipment	29 618 483 €
Transporte Equipment	418 146 €
Tools and Utensils	124 650 €
Office Equipment	608 504 €
Other tangible fixed assets	28 497 €

Art. 30 (1)(b)(iv,v) Transmission service revenue

The following table presents the value of transmission services revenue and various ratios that characterize the tariff structure.

Art. 30 (1)(b)(iv)	23 908 467 €
Transmission services revenue	
Art. 30 (1)(b)(v)(1)	100% / 0%
Capacity-commodity split, meaning the breakdown between the revenue from capacity-based transmission tariffs and the revenue from commodity-based transmission tariffs	Transmission tariffs are entirely capacity-based.
Art. 30 (1)(b)(v)(2)	28% / 72%
Entry-exit split, meaning the breakdown between the revenue from capacity-based transmission tariffs at all entry points and the revenue from capacity-based transmission tariffs at all exit points	Transmission tariffs are set in order to achieve an entry-exit split of 28/72.
Art. 30 (1)(b)(v)(3)	97,1% / 2,9%
Intra-system/cross-system split, meaning the breakdown between the revenue from intra-system network use at both entry points and exit points and the revenue from cross-system network use at both entry points and exit points calculated as set out in Article 5	The cross-system network use is very limited in the case of Portugal, where the interconnection points are mainly used for the import of natural gas.

Art. 30 (1)(b)(vi,vii) Reconciliation mechanism and auction premium

The following table characterizes the regulatory account reconciliation process and the use of the auction premium.

Art. 30 (1)(b)(vi)(1)	
Reconciliation of the regulatory account: the actually	In the last real year (2020) the amount of actually obtained revenues was 70 524
obtained revenue, the under- or over-recovery of the	thousand euros. This means that in the year 2020 the billing was higher than the
allowed revenue and the part thereof attributed to the	allowed revenues (an over-recovery of 19 378 thousand euros).
regulatory account and, if applicable, sub-accounts	
within such regulatory account	
Art. 30 (1)(b)(vi)(2)	
Reconciliation of the regulatory account: the	The reconcialiation period is of 2 years. No incentive mechanisms are applied.
reconciliation period and the incentive mechanisms	
implemented	
Art. 30 (1)(b)(vii)	
The intended use of the auction premium	Auction premium obtained are deducted to the TSO allowed revenues. Thus,
	auction premium return to gas consumers.

Art. 30 (1)(c) Transmission and non-transmission tariffs

The transmission tariffs for gas year 2022-2023 are in the following five tables:

- Prices for entry points from infrastructures in High Pressure¹⁶, distinguishing between firm capacity products (Table 9) and interruptible capacity products (Table 10).
- Prices for exit points to infrastructures in High Pressure, distinguishing between firm capacity products (Table 11) and interruptible capacity products (Table 12).
- Prices for entry points from gas producers (Table 13).
- Prices for the exit points to distribution networks, customers in High Pressure (HP) and facilities supplied by autonomous gas units (Table 14).

For an explanation of the impact of the transmission tariff on the final customer's invoice, it is recommended to consult the attached information (page 23).

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 $^{^{16}}$ High-pressure infrastructures are VIP Iberico, the LNG terminal at Sines and Underground storage at Carriço.

Table 9 - Prices of the tariff for the use of the transmission system for firm capacity products, by entry point

PRICES OF THE TRANSMISSION TARIFF: ENTRY POINTS Firm capacity produts (daily horizon or higher)	
VIP Iberico	Contracted capacity
	EUR/(kWh/day)/day
Annual	0,00008675
Quarterly	0,00011277
Monthly	0,00013012
Daily	0,00017349
LNG Terminal	Contracted capacity EUR/(kWh/day)/day
Annual	0,00007990
Quarterly	0,00010387
Monthly	0,00011984
Daily	0,00015979
Underground storage	Contracted capacity
	EUR/(kWh/day)/day
Daily	0,00000000
PRICES OF THE TRANSMISSION TARIFF: ENTRY POINTS Firm capacity produts (within-day horizon)	
VIP Iberico	Contracted capacity
	EUR/(kWh/h)/h
Within-day	0,00019084
LNG Terminal	Contracted capacity
	EUR/(kWh/h)/h
Within-day	0,00017577
Underground storage	Contracted capacity
	EUR/(kWh/h)/h
Within-day	0,00000000

Table 10 - Prices of the tariff for the use of the transmission system for interruptible capacity products, by entry point

PRICES OF THE TRANSMISSION TARIFF: ENTRY POINTS Interruptible capacity produts (daily horizon)	
VIP Iberico	Contracted capacity
	EUR/(kWh/day)/day
Daily	0,00016551
PRICES OF THE TRANSMISSION TARIFF: ENTRY POINTS Interruptible capacity produts (within-day horizon)	
VIP Iberico	Contracted capacity
	EUR/(kWh/h)/h
Within-day	0,00018206
LNG Terminal	Contracted capacity
	EUR/(kWh/h)/h
Within-day	0,00014888
Underground storage	Contracted capacity
	EUR/(kWh/h)/h
Within-day	0,00000000

Table 11 - Prices of the tariff for the use of the transmission system for firm capacity products, by exit point

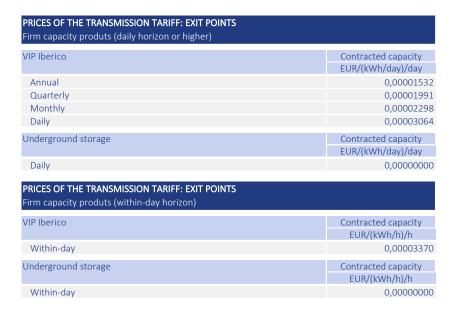


Table 12 - Prices of the tariff for the use of the transmission system for interruptible capacity products, by exit point

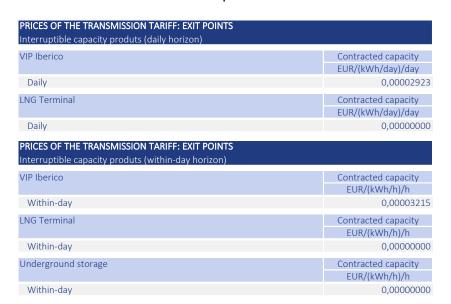


Table 13 - Prices of the tariff for the use of the transmission system, by entry point (gas producers)

TARIFF FOR THE USE OF THE TRANSMISSION NETWORK APPLIED BY THE TSO By entry point				
Gas producers (connected to the transmission network) Used capacity at injection				
	EUR/(kWh/day)/day			
Gas injection	0,00002349			

Table 14 - Prices of the tariff for the use of the transmission system, by exit point (distribution networks, customers in HP and facilities supplied by autonomous gas units)

TARIFF FOR THE USE OF THE TRANSMISSION NE By exit point and tariff option	TWORK APPLIED BY THE TSO	
Distribution networks and HP Customers		Used capacity
		EUR/(kWh/day)/day
Long uses		0,0001231
HP Customers	Annual base capacity	Monthly additional capacity (april to september)
	EUR/(kWh/day)/day	EUR/(kWh/day)/day
Flexible annual tariff	0,00012318	0,00018478
HP Customers	Monthly capacity (october	Monthly capacity (april to
	to march)	september)
	EUR/(kWh/day)/day	EUR/(kWh/day)/day
Flexible monthly tariff	0,00036955	0,00018478
HP Customers	Daily capacity (october to	Daily capacity (april to
ar customers	march)	september)
	EUR/(kWh/day)/day	EUR/(kWh/day)/day
Flexible daily tariff	0,00123185	0,00073913
Facilities supplied by UAG (customer-owned)		Commodity
		EUR/kWh
Commodity		0,00030000

Neither energy-based¹⁷ transmission tariffs nor non-transmission tariffs for non-transmission services are applied in the terms referred to in Article 4(3) and Article 4(4), respectively.

For more information on how transmission tariffs are reflected in the bill of final customers, please check the annex at end of this document.

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¹⁷ It should be noted that the price applicable to customer-owned UAG installations (autonomous gas units), although expressed in the EUR/kWh unit, results from a capacity-based price obtained using the reference price methodology, which is subsequently converted due to the impossibility of measuring a capacity concept for this type of consumer.

Art. 30 (2)(a) Tariff changes and trends

In addition to the tariffs for the use of the transmission system for gas year 2022-2023, Table 15 also shows the respective prices for the previous three gas years.

Table 16 shows the annual changes in transmission tariffs for gas years 2019-2020, 2020-2021, 2021-2022 and 2022-2023. The variations presented are explained by the following effects:

Gas year 2019-2020

- The variations in tariffs reflect the reduction of 21.2% in allowed revenues of the transmission system operator, mainly due to the intertemporal deferral of revenue deviations.
- At entry points, the following effects are highlighted:
 - o For the LNG terminal the reduction is greater than for the VIP due to the reference price methodology introduced with gas year 2019-2020 (according to this methodology the gas introduced into the system through the VIP implies, in comparison, a greater use of the transmission network).
 - o For underground storage there is a 100% reduction resulting from the application of a 100% discount. The application of this discount complies with the Tariff Network Code and is intended to make it easier for traders to be in balance through the use of the underground storage, taking advantage of the flexibility this infrastructure can provide to the system.
- At exit points, the following effects are highlighted:
 - o The variation in exit point tariffs for customers connected to the transmission network and for distribution networks is -18.9%, due to the reduction in allowed revenues.

Gas year 2020-2021

- The variations in tariffs reflect the reduction of 58.8% in allowed revenues of the transmission system operator, mainly due to the intertemporal deferral of revenue deviations.
- At entry points, the following effects are highlighted:

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- o At VIP Iberico and the LNG terminal the reduction is equal to 64.3%. The reduction is driven by the reduction in allowed revenues and the increase in forecasted demand.
- For underground storage the percentage variation is not presented because the prices are zero.
- At exit points, the following effects are highlighted:
 - o The variation in exit point tariffs is -51.0%, due to the reduction in allowed revenues.

Gas year 2021-2022

- The variations in tariffs reflect changes in the demand structure forecasted for gas year 2021-2022, with a reduction in the forecasted capacity for entry points, at the same time that an increase in the demand at exit points is forecasted. This change explains that the magnitude of variations is not aligned with the variation of the allowed revenues (-1.5%).
- At entry points, the following effects are highlighted:
 - o At VIP Iberico and the LNG terminal the increase is equal to 7.0%. The increase is driven by the decrease in forecasted demand.
 - For underground storage the percentage variation is not presented because the prices are zero.
 - o For gas producers the percentage variation is not presented as the price is published for the first time.
- At exit points, the following effects are highlighted:
 - o The variation in the tariffs is -22.3%, is driven by the increase in forecasted demand.

Gas year 2022-2023

• The tariff reductions mainly reflect a -19.6% reduction in allowed revenues. Changes in the expected demand structure explain why the reductions at exit points (-31.0%) are of greater magnitude than reductions at entry points (-14.5%).

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- The variations in tariffs reflect changes in the demand structure forecasted for gas year 2021-2022, with a reduction in the forecasted capacity for entry points, at the same time that an increase in the demand at exit points is forecasted. This change explains that the magnitude of variations is not aligned with the variation of the allowed revenues (-1.5%).
- At entry points, the following effects are highlighted:
 - o At VIP Iberico, the LNG terminal and for gas producers the decrease is equal to -14.5%.
 - o For underground storage the percentage variation is not presented because the prices are zero.
- At exit points, the following effects are highlighted:
 - o For underground storage and for the LNG terminal the percentage variation is not presented because the prices are zero.
 - For the remaining exit points the variation in the tariffs is -31.0%.

At points with capacity booking¹⁸, Table 15 and Table 16 only present the evolution of the reserve prices for firm capacity products. The reserve prices for interruptible capacity products result from the following:

- VIP Iberico: in both directions an ex-ante discount is applied since gas year 2021-2022, pursuant to article 16 of the Tariff Network Code. In gas year 2022-2023, the ex-ante discount is equal to 4.6% and results from a unitary adjustment factor (A=1) and a probability of interruption of 4.6% (Pro=4.6%) ¹⁹. Prices are presented in Table 10 and Table 12.
- LNG terminal: at the entry point to the transmission network an ex-ante discount of 15.3% is applied compared to the reserve price of the firm capacity product ²⁰; at the exit point from the transmission network the reserve price is identical to the reserve price of the firm capacity product 21.
- Underground storage: in both directions the reserve price is identical to the reserve price of the firm capacity product.²²

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¹⁸ VIP Iberico, LNG terminal and Underground storage.

¹⁹ Applicable to interruptible capacity products for the daily and the within-day timeframe.

²⁰ Applicable to interruptible capacity products for the within-day timeframe.

²¹ Applicable to interruptible capacity products for the daily and the within-day timeframe.

²² Applicable to interruptible capacity products for the within-day timeframe.

Information to be published pursuant to Article 30 of Commission Regulation (EU) 2017/460

Table 15 - Tariffs for the use of the transmission system, by gas year $\,$

	Point	Product	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	Unit
Entry	VIP Iberico	Yearly	0,1218	0,0969	0,0346	0,0370	0,0317	€/(kWh/day)/year
		Quarterly	0,1583	0,1260	0,0450	0,0481	0,0412	€/(kWh/day)/year
		Monthly	0,1827	0,1454	0,0519	0,0555	0,0475	€/(kWh/day)/year
		Daily	0,2436	0,1938	0,0692	0,0740	0,0633	€/(kWh/day)/year
		Intraday	6,4308	5,1168	1,8274	1,9548	1,6718	€/(kWh/h)/year
	LNG terminal	Yearly	0,1218	0,0893	0,0319	0,0341	0,0292	€/(kWh/day)/year
		Quarterly	0,1583	0,1160	0,0414	0,0443	0,0379	€/(kWh/day)/year
		Monthly	0,1827	0,1339	0,0478	0,0511	0,0437	€/(kWh/day)/year
		Daily	0,2436	0,1785	0,0638	0,0682	0,0583	€/(kWh/day)/year
		Intraday	6,4308	4,7128	1,6831	1,8005	1,5398	€/(kWh/h)/year
	Underground Storage	Daily	0,0034	0,0000	0,0000	0,0000	0,0000	€/(kWh/day)/year
		Intraday	0,0902	0,0000	0,0000	0,0000	0,0000	€/(kWh/h)/year
	Gas producers	Used capacity at injection	n/a	n/a	n/a	0,0100	0,0086	€/(kWh/day)/year
Exit	VIP Iberico	Yearly	0,0000	0,0213	0,0104	0,0081	0,0056	€/(kWh/day)/year
		Quarterly	0,0000	0,0277	0,0136	0,0105	0,0073	€/(kWh/day)/year
		Monthly	0,0000	0,0319	0,0157	0,0122	0,0084	€/(kWh/day)/year
		Daily	0,0000	0,0426	0,0209	0,0162	0,0112	€/(kWh/day)/year
		Intraday	0,0000	1,1237	0,5509	0,4281	0,2952	€/(kWh/h)/year
	LNG terminal	Yearly	0,0000	0,0000	0,0000	0,0000	0,0000	€/(kWh/day)/year
		Quarterly	0,0000	0,0000	0,0000	0,0000	0,0000	€/(kWh/day)/year
		Monthly	0,0000		0,0000	0,0000	0,0000	€/(kWh/day)/year
		Daily	0,0000		0,0000	0,0000	0,0000	€/(kWh/day)/year
		Intraday	0,0000	0,0000	0,0000	0,0000	0,0000	€/(kWh/h)/year
	Underground Storage	Daily	0,0000		0,0000	0,0000	0,0000	€/(kWh/day)/year
		Intraday	0,0000		0,0000	0,0000	0,0000	€/(kWh/h)/year
	Distribution networks and HP Customers	Long Uses	0,2110	0,1712	0,0839	0,0652	0,0450	€/(kWh/day)/year
	HP Customers	Annual Flexible Rate - Annual Base Capacity	0,2110	0,1712	0,0839	0,0652	0,0450	€/(kWh/day)/year
		Annual Flexible Rate - Additional Monthly Capacity (April to September)	0,3165		0,1259	0,0978	0,0674	€/(kWh/day)/year
		Flexible Monthly Rate - Monthly Capacity (October to March)	0,6329		0,2517	0,1956	0,1349	€/(kWh/day)/year
		Flexible Monthly Rate - Monthly Capacity (April to September)	0,3165		0,1259	0,0978	0,0674	€/(kWh/day)/year
		Daily Flexible Rate - Daily Capacity (October to March)	2,1097		0,8390	0,6521	0,4496	€/(kWh/day)/year
		Daily Flexible Rate - Daily Capacity (April to September)	1,2658	1,0269	0,5034	0,3913	0,2698	€/(kWh/day)/year

Table 16 - Annual variations in the tariffs for the use of the transmission system, by gas year

	Point	Product	2019-2020	2020-2021	2021-2022	2022-2023
Entry	VIP Iberico	Yearly	-20,4%	-64,3%	7,0%	-14,5%
		Quarterly	-20,4%	-64,3%	7,0%	-14,5%
		Monthly	-20,4%	-64,3%	7,0%	-14,5%
		Daily	-20,4%	-64,3%	7,0%	-14,5%
		Intraday	-20,4%	-64,3%	7,0%	-14,5%
	LNG terminal	Yearly	-26,7%	-64,3%	7,0%	-14,5%
		Quarterly	-26,7%	-64,3%	7,0%	-14,5%
		Monthly	-26,7%	-64,3%	7,0%	-14,5%
		Daily	-26,7%	-64,3%	7,0%	-14,5%
		Intraday	-26,7%	-64,3%	7,0%	-14,5%
	Underground Storage	Daily	-100,0%	-	-	-
		Intraday	-100,0%	-	-	-
	Gas producers	Used capacity at injection	-	-	-	-14,5%
Exit	VIP Iberico	Yearly	-	-51,0%	-22,3%	-31,0%
		Quarterly	-	-51,0%	-22,3%	-31,0%
		Monthly	-	-51,0%	-22,3%	-31,0%
		Daily	-	-51,0%	-22,3%	-31,0%
		Intraday	-	-51,0%	-22,3%	-31,0%
	LNG terminal	Yearly	-	-	-	-
		Quarterly	-	-	-	-
		Monthly	-	-	-	-
		Daily	-	-	-	-
		Intraday	-	-	-	i
	Underground Storage	Daily	-	-	-	ı
		Intraday	-	-	-	ı
	Distribution networks and HP Customers	Long Uses	-18,9%	-51,0%	-22,3%	-31,0%
	HP Customers	Annual Flexible Rate - Annual Base Capacity	-18,9%	-51,0%	-22,3%	-31,0%
		Annual Flexible Rate - Additional Monthly Capacity (April to September)	-18,9%	-51,0%	-22,3%	-31,0%
		Flexible Monthly Rate - Monthly Capacity (October to March)	-18,9%	-51,0%	-22,3%	-31,0%
		Flexible Monthly Rate - Monthly Capacity (April to September)	-18,9%	-51,0%	-22,3%	-31,0%
		Daily Flexible Rate - Daily Capacity (October to March)	-18,9%	-51,0%	-22,3%	-31,0%
		Daily Flexible Rate - Daily Capacity (April to September)	-18,9%	-51,0%	-22,3%	-31,0%

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Art. 30 (2)(b) Simplified tariff model

In accordance with the Tariff Network Code, ERSE provides a simplified tariff model which allows users to consult the tariffs for the use of the transmission network in force for gas year 2022-2023 and simulate what the transmission tariffs would have been equal to if demand or revenues were different.

For this purpose, the simplified tariff model allows the user to enter her estimates for the evolution of the transmission system operator's allowed revenues and for the evolution of forecasted capacity regarding the various capacity products.

The simplified tariff model can be found on the **ERSE** website.

Annex: Recovery of transmission tariffs in customer bills

The recovery of transmission tariffs in customer bills occurs in two ways. The value corresponding to the **exit from the transmission network** is fully reflected in the network access tariff, with prices being regulated and approved annually by ERSE.

The value corresponding to the **entry into the transmission network** is not reflected in the network access tariff and represents a cost of supply. That cost is paid by suppliers or market agents that book capacity at the entry points of the transmission network.

Gas supply is an activity that is only regulated for customers in the regulated market. For customers in a liberalized market, supply is a competitive activity, the cost of which depends on the supply strategy followed by the supplier. The supply strategy may consist of (i) the purchase of gas at VTP, the virtual trading point in Portugal, (ii) the introduction of gas in Portugal through VIP Iberico, the virtual point of interconnection between Portugal and Spain, (iii) the introduction of gas into Portugal through the Sines Terminal, which receives liquefied natural gas, among other strategies. Depending on the supply strategy, the market agents responsible for the supply bear different regulated tariffs for using the high-pressure infrastructures (Table 17).

Table 17 - Regulated tariffs at high pressure infrastructures to be supported by market agents, by supply strategy

Regulated tariffs at high pressure infrastructures		
Tariff for the use of the transmission network		
Tariff for the use of the LNG terminal for reception, storage and regasification		
Tariff for the use of the underground storage		

Supply strategy					
VTP at MIBGAS	VIP Iberico	LNG Terminal			
No.	Yes. For the service of entry from VIP Iberico.	Yes. For the service of entry from the LNG Terminal.			
No.	No.	Yes. For the services of reception, storage and regasification at the LNG Terminal.			
Not necessarily. It depends on the how the market agent manages the gas.	Not necessarily. It depends on the how the market agent manages the gas.	Not necessarily. It depends on the how the market agent manages the gas.			

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A market agent that acquires gas at the VTP in MIBGAS does not have to bear additional costs for the use of high-pressure infrastructures. In comparison, introducing gas into Portugal through VIP Iberico requires the payment of the transmission tariff, according to the price at the point of entry from VIP Iberico. In the case of introducing gas through the LNG Terminal, in addition to the transmission tariff, with the price applied at the point of entry from the LNG Terminal, the market agent also bears the tariff for the LNG Terminal.

Suppliers can recover the cost incurred for the use of the transmission network entry points in their customers' invoices, at variable prices to be chosen by each supplier, similarly to the costs of using the LNG Terminal, the underground storage or the supply of gas. The direct application of the prices approved by ERSE for the transmission tariff applied at entry points, which refer to booked capacity, to the used capacity of customers is not imposed by the ERSE's regulation, and any information transmitted to customers in the opposite direction is incorrect.

In compliance with the principles of transparency and objectivity in the commercial relationship with their customers, suppliers must inform their customers about the meaning of the values that constitute the gas bill.