



European Union Agency for the Cooperation  
of Energy Regulators

## Agency Report

# Analysis of the Consultation Document on the Gas Transmission Tariff Structure for Portugal

NRA: Entidade Reguladora dos Serviços  
Energéticos (ERSE)

TSO: REN Gasodutos S.A. (REN)

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## Contents

1.	ACER conclusion.....	2
2.	Introduction.....	5
3.	Completeness.....	5
3.1	Has all the information referred to in Article 26(1) been published?.....	5
4.	Assessment of the proposed reference price methodology.....	7
4.1	Description of the network.....	7
4.1.1	Regional networks and autonomous gas units (AGU).....	8
4.1.2	Changes in network utilisation.....	8
4.2	Description of proposed RPM.....	9
4.2.1	Effective capacity cost driver.....	9
4.2.2	Effective distance cost driver.....	12
4.2.3	Entry-exit split.....	12
4.3	Adjustments and discounts.....	13
4.4	Tariffs applicable to domestic production points.....	13
4.5	Resulting reference prices.....	13
4.6	Regional networks.....	14
4.6.1	Proposed RPM.....	14
4.6.2	Counter-factual RPM to allocate the costs of regional networks.....	14
4.6.3	Compared results.....	15
4.6.4	ACER conclusion.....	16
4.7	Comparison with the CWD methodology.....	17
4.8	Cost allocation assessment.....	18
5.	Compliance.....	19
5.1	Does the RPM comply with the requirements set out in Article 7?.....	19
5.1.1	Transparency.....	19
5.1.2	Cost-reflectivity.....	20
5.1.3	Cross-subsidisation and non-discrimination.....	20
5.1.4	Volume risk.....	20
5.1.5	Cross-border trade.....	20
	Annex 1: Legal framework.....	21
	Annex 2: List of abbreviations.....	25

## 1. ACER conclusion

- (1) The Portuguese national regulatory authority (NRA), Entidade Reguladora dos Serviços Energéticos (ERSE), has consulted on the application of a reference price methodology (RPM) pursuant to Article 26(1) of the Network Code on Harmonised Transmission Tariff Structures for Gas (NC TAR). The NRA proposes a modified capacity weighted distance (modified CWD) RPM based on the cost drivers of effective capacity and effective distance, instead of the standard capacity and distance cost drivers, and an entry-exit split of 28/72%. The NRA proposes 100% discounts to storage and no commodity-based transmission services nor any non-transmission services.
- (2) The Portuguese transmission network includes regional network and autonomous gas units<sup>1</sup> (AGU). Regional networks represent 258 km (19% of the total distance of the network of 1375 km and 44% of the past investments in the transmission network). Over the course of the last years, the utilisation of the network has shifted by decreasing the reliance on the VIP Iberico entry from Spain (utilisation rate of 59.7% in 2019 to 13.0% in 2022), and increasing the reliance on LNG imports via the Sines LNG terminal (utilisation rate of 94.7% in 2019 to 100% in 2022). ERSE proposes a methodology to signal the use of the network infrastructure.
- (3) The effective capacity cost driver is calculated multiplying the forecasted contracted capacity by the utilisation rate of network points. The result is a higher value of the cost driver for the points with higher utilisation rates and a lower value for the points with lower utilisation rates. This approach allows ERSE to provide network signals to users to enable an efficient utilisation of the transmission network. The effective distance cost driver is calculated as the distance cost driver multiplied by a factor of 132% that is applied to domestic exit points. ERSE proposes this cost driver to prevent cross-subsidisation between transmission networks and regional networks. As a result of the proposed cost drivers, the methodology allocates higher costs to more utilised network points and to domestic exit points.
- (4) The proposed RPM is intended to allocate the costs of regional assets to domestic exit points. ERSE provides in the consultation document an extensive analysis comparing the results of four different counter-factual methodologies. The Agency considers that the proposed approach can partially limit potential cross-subsidisation between transmission networks and regional networks. At the same time, the proposed methodology does not fully prevent the spill over of costs between these two types of assets. In particular, the proposed methodology results in tariffs for the VIP Iberico exit 92% higher compared to a counter-factual proposed by ERSE which prevents any form of cross-subsidies between these two categories of assets. The proposed tariffs result in EUR 648,562 revenue per year, associated with regional networks, allocated to the VIP Iberico exit.

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<sup>1</sup> Autonomous gas units (AGU) are storage systems (cryogenic reservoirs) for storing LNG, other gases or gas mixtures, which can supply distribution networks or dedicated customers (customer owned AGU) in areas of the country where there is no gas network.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- (5) The NC TAR foresees a cost allocation assessment (CAA) and the comparison of the proposed RPM with the CWD methodology. ERSE also provides the CAA results for four different methodology calculations, including the proposed RPM, which results in a CAA value of 1.2%. This result is within the 10% threshold laid out in Article 5(6) of the NC TAR and does not require further justification. Regarding the comparison with the CWD methodology, ERSE provides, in the consultation document, a comparison of the proposed RPM with the postage stamp methodology and with two different versions of the CWD methodology. In the view of the Agency, the proposed RPM improves the cost reflectivity of the resulting tariffs due to its modified cost drivers, which allow providing signals for the utilisation rate of network points (resulting from the effective capacity cost driver) and limiting the spill-over effect of the regional networks (thanks to the effective distance cost driver).
- (6) In gas year 2021-2022, a price applicable to gas producers' injection to the transmission network was published for the first time, in EUR/(kWh/day)/day, applied to the utilised injection capacity<sup>2</sup>, i.e. the maximum daily injection over the last twelve months. Since there are not yet any gas producers directly connected to the transmission network, the proposed RPM assumes that a hypothetical gas producer is located next to the underground storage, as being representative of a location closer to domestic consumption.
- (7) The Agency concludes that the proposed RPM is appropriate for the Portuguese transmission network. At the same time, the Agency notes that the costs allocated using the proposed RPM are related, not only to transmission assets, but also to regional networks. While the proposed RPM allows to partially limit the cross-subsidies between these networks and the transmission networks, it does however lead to some degree of cross-subsidisation between these two types of assets.
- (8) In bilateral exchanges after the end of the consultation, ERSE explained to the Agency that the proposed RPM can be adjusted to limit the allocation of regional networks to domestic exit points. This is possible by modifying the economic value factor that is used to calculate the effective distance cost driver, which is applied to domestic exit points and is currently set to 132%. The Agency understands, in view of this outcome, that the proposed RPM can be modified to accurately allocate the costs of regional networks and AGU to domestic exit points and not to the VIP Iberico or to other transmission points.
- (9) The Agency concludes, after having completed the analysis of the proposed RPM, pursuant to Article 27(2) of the NC TAR, that:
- The consultation document includes all the elements required under Article 26(1) of the NC TAR.
  - The proposed RPM is compliant with the requirement on transparency (Article 7(1) of the NC TAR). The compliance of the methodology with the requirements on cost reflectivity, prevention of undue cross-subsidisation and non-distortion of cross-border trade are subject to the accurate allocation of the costs of regional networks to users of this infrastructure (i.e. domestic exit points and not IPs or entry points to the network). The Agency concludes that the RPM is compliant with the requirement of avoiding volume risk and of ensuring non-discrimination.

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<sup>2</sup> The billing variable is the capacity used for injection, since the intention is not to apply a capacity reservation system to the injection of these gasses.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- The criteria for setting the commodity charge are not applicable.
  - The criteria for setting the non-transmission services are not applicable.
- (10) The Agency recommends, pursuant to Article 27(4) of the NC TAR, that ERSE adapt the proposed RPM to prevent cross-subsidisation between the cost associated with transmission network and the costs associated with regional networks. For this purpose, the Agency extends the recommendation previously made in other ACER consultation reports<sup>3</sup> to allocate the costs associated with regional networks as follows:
- First, in cases where regional networks are in place, these costs can be allocated using the RPM, should the proposed methodology prove capable of allocating the costs related to regional networks to domestic users only.
  - Second, should the allocation of the costs of regional networks to domestic end users not be possible under the proposed RPM, the Agency recommends changing the category of regional networks to distribution, allocating these costs outside the RPM.
- (11) As stated above, the Agency understands that the proposed RPM can be adapted to fully meet the first option referred to in the previous paragraph. To assess the effectiveness of the proposed RPM, the Agency recommends ERSE to compare the results of the proposed RPM with the results of the counter-factual methodology described in section 4.6.2 of this Report.
- (12) In addition, the Agency recommends ERSE to assess that the costs of regional networks and AGU are adequately allocated to domestic exit points when considering the allowed revenue allocated using the RPM. The proposed methodology allocates costs based on the investments that have taken place in the transmission network, regional networks and AGU, over a period of time. In particular, both the entry-exit split and the efficient distance cost drivers are set based on investments and not on the total allowed revenue of the TSO. The Agency recommends that ERSE assess the cost-reflectivity of the RPM considering the total costs of these networks in addition to considering the already proposed approach, which is based on investments. The Agency understand that such analysis will necessarily be based on assumptions, which ERSE can provide as part of the assessment.
- (13) The Agency acknowledges the high quality of the analyses and the large amount of details provided in the consultation document. This information enables a high degree of transparency on the proposed tariff structure for the stakeholders. The consultation document can be considered as a good practice for other NRAs and TSOs to follow, in terms of providing full information based on Article 26 and of providing inputs beyond it to explain in a comprehensive manner a less standard RPM. The Agency further thanks ERSE for its availability and for its promptness when responding to ACER's information requests in relation to the consultation.

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<sup>3</sup> See, for example, section 4.1 of the 2023 ACER Report on the Consultation Document on the Gas Transmission Tariff Structure for Italy ([link](#)) or section 4.4 of the 2023 ACER Report on the Document on the Gas Transmission Tariff Structure for Lithuania ([link](#)).

## 2. Introduction

- (14) Commission Regulation (EU) 2017/460 of 16 March 2017 establishes a network code on harmonised transmission tariff structures for gas (NC TAR).
- (15) Article 27 of the NC TAR requires the Agency to analyse the consultation documents on the reference price methodologies for all entry-exit systems.<sup>4</sup> This Report presents the analysis of the Agency for the transmission system of Portugal.
- (16) On 3 October 2023 ERSE forwarded the consultation documents to the Agency. The consultation was launched on 4 October 2023 and remained open until 4 December 2023. On 4 January 2024, the consultation responses and their English summary were published. The Agency has taken these into consideration for this analysis. Within five months following the end of the final consultation, and pursuant to Article 27(4) of the NC TAR, ERSE shall take and publish a motivated decision on all the items set out in Article 26(1).

### *Reading guide*

- (17) In section 3, this document first presents an analysis on the completeness, namely if all the information in Article 26(1) has been published. Section 4 assesses the proposed reference price methodology. Section 5 focusses on the compliance, namely if the RPM complies with the requirements set out in Article 7 of the code. This document contains two annexes, respectively the legal framework and a list of abbreviations.

## 3. Completeness

### 3.1 Has all the information referred to in Article 26(1) been published?

- (18) Article 27(2)(a) of the NC TAR requires the Agency to analyse whether all the information referred to in Article 26(1) of the NC TAR has been published.
- (19) Article 26(1) of the NC TAR requires that the consultation document should be published in the English language, to the extent possible. The Agency remarks that the consultation document has been published in English.
- (20) The Agency points out that all the information in Article 26(1) of the NC TAR has been properly published. The Agency further remarks that the consultation documents include additional information compared to the NC TAR requirements. The Agency considers such degree of analysis a best practice in the implementation of the NC TAR.

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<sup>4</sup> With the exception of Article 10(2)(b), when different RPMs may be applied by the TSOs within an entry-exit zone.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

Table 1 Checklist information Article 26(1)

Article	Information	Published: Y/N/NA
<b>26(1)(a)</b>	the description of the proposed reference price methodology	Yes
<b>26(1)(a)(i)</b> <b>26(1)(a)(i)(1)</b> <b>26(1)(a)(i)(2)</b>	the indicative information set out in Article 30(1)(a), including: <ul style="list-style-type: none"> <li>the justification of the parameters used that are related to the technical characteristics of the system</li> <li>the corresponding information on the respective values of such parameters and the assumptions applied</li> </ul>	Yes
<b>26(1)(a)(ii)</b>	the value of the proposed adjustments for capacity-based transmission tariffs pursuant to Article 9	Yes
<b>26(1)(a)(iii)</b>	the indicative reference prices subject to consultation	Yes
<b>26(1)(a)(iv)</b>	the results, the components and the details of these components for the cost allocation assessments set out in Article 5	Yes
<b>26(1)(a)(v)</b>	the assessment of the proposed reference price methodology in accordance with Article 7	Yes
<b>26(1)(a)(vi)</b>	where the proposed reference price methodology is other than the capacity weighted distance reference price methodology detailed in Article 8, its comparison against the latter accompanied by the information set out in point (iii)	Yes
<b>26(1)(b)</b>	the indicative information set out in Article 30(1)(b)(i), (iv), (v)	Yes
<b>26(1)(c)(i)</b> <b>26(1)(c)(i)(1)</b> <b>26(1)(c)(i)(2)</b> <b>26(1)(c)(i)(3)</b>	where commodity-based transmission tariffs referred to in Article 4(3) are proposed <ul style="list-style-type: none"> <li>the manner in which they are set</li> <li>the share of the allowed or target revenue forecasted to be recovered from such tariffs</li> <li>the indicative commodity-based transmission tariffs</li> </ul>	N.A.
<b>26(1)(c)(ii)</b> <b>26(1)(c)(ii)(1)</b> <b>26(1)(c)(ii)(2)</b> <b>26(1)(c)(ii)(3)</b> <b>26(1)(c)(ii)(4)</b>	where non-transmission services provided to network users are proposed: <ul style="list-style-type: none"> <li>the non-transmission service tariff methodology therefor</li> <li>the share of the allowed or target revenue forecasted to be recovered from such tariffs</li> <li>the manner in which the associated non-transmission services revenue is reconciled as referred to in Article 17(3)</li> <li>the indicative non-transmission tariffs for non-transmission services provided to network users</li> </ul>	N.A.
<b>26(1)(d)</b>	the indicative information set out in Article 30(2);	Yes
<b>26(1)(e)</b> <b>26(1)(e)(i)</b> <b>26(1)(e)(ii)</b> <b>26(1)(e)(iii)</b> <b>26(1)(e)(iv)</b>	where the fixed payable price approach referred to in Article 24(b) is considered to be offered under a price cap regime for existing capacity: <ul style="list-style-type: none"> <li>the proposed index;</li> <li>the proposed calculation and how the revenue derived from the risk premium is used</li> <li>at which interconnection point(s) and for which tariff period(s) such approach is proposed</li> <li>the process of offering capacity at an interconnection point where both fixed and floating payable price approaches referred to in Article 24 are proposed</li> </ul>	N.A.



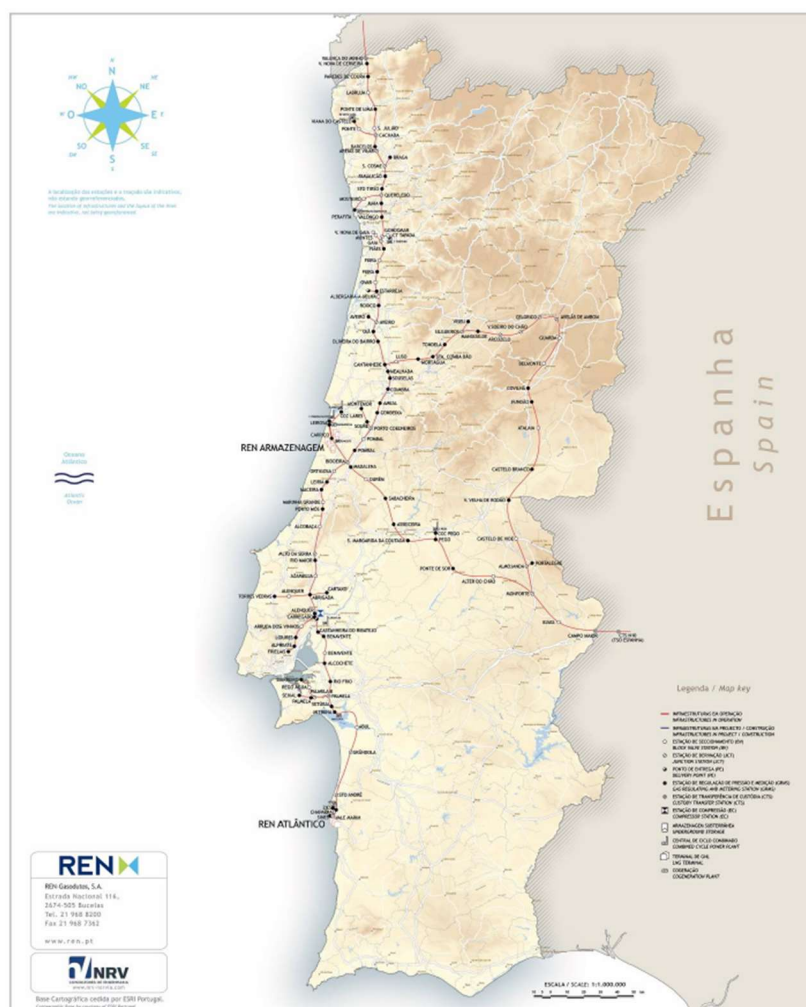
## 4. Assessment of the proposed reference price methodology

- (21) The following chapter assesses the proposed RPM considering the input parameters of the methodology and the cost allocation assessment.

### 4.1 Description of the network

- (22) The Portuguese transmission network consists of 1.375 km of pipelines, 258 km of which are regional networks. There are currently no compressor stations installed in the network, which receives pressure from the LNG import terminal and the entry VIP Iberico with Spain. Figure 1 below provides a presentation of the network.

Figure 1: Map illustrating the Portugues transmission network. Source: ERSE.



- (23) The network has 4 entry points (VIP Iberico with Spain, an entry point from the Sines LNG terminal, the entry point from the storage facility Carrico and an injection entry points<sup>5</sup>) and four exit points

<sup>5</sup> This is a hypothetical entry point, as there are currently no injection points connected. In the methodology, this point is located next to the underground storage.



## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

(VIP Iberico with Spain, the virtual exit to the Sines LNG terminal, the exit point to the storage facility and the domestic exit points).

### 4.1.1 Regional networks and autonomous gas units (AGU)

- (24) The distance matrix is based on the information provided by the TSO<sup>6</sup>. Instead of using a simplified diagram, as in the previous consultation, ERSE uses the complete characterisation of the network based on five entry points and 89 exits<sup>7</sup>. ERSE furthermore identifies transmission and regional networks accounting for the following distances:
- Transmission pipelines: 1117 km.
  - Regional networks 258 km, including 8 km of pipelines beyond the gas regulating and measurement stations (GRMS).
- (25) As part of regional network, ERSE includes autonomous gas units (AGU). These are storage systems (cryogenic reservoirs) for storing LNG, other gases or gas mixtures, which can supply distribution networks or dedicated customers (customer owned AGU) in areas of the country where there is no gas network. The AGU are supplied by road using tanker trucks that fill up at the Sines LNG terminal. As explained in page 14 of the consultation document, *“the costs of tanker transport to supply customer-owned AGU are transferred by the AGU owner to the transmission network operator and are included in the calculation of the transmission network tariff. This results in a transmission tariff that is the same for all consumers, whether they are supplied via a network interconnected with the transmission network or via a customer-owned AGU”*.
- (26) Based on the structure of past investments, ERSE assumes that the costs associated with the transmission network, the regional networks and the AGU service are as follows:
- Allowed revenue associated with transmission networks: EUR 39,7 m (56% of the total allowed revenue).
  - Allowed revenue associated with regional networks: EUR 31,2 m (44% of the total allowed revenue).
- (27) ACER notes that the costs of regional networks service benefit domestic users and should not be allocated to cross-border points (i.e. LNG entry point and VIP exit to Spain). The allocation of these costs resulting from the proposed RPM is discussed in section 4.6 below.

### 4.1.2 Changes in network utilisation

- (28) The use of the Portuguese infrastructure has significantly changed. This is illustrated in Figure 2 and Figure 3 below which shows the contracted capacity at the two main entries of the system. The LNG entry point has become the main supply point to the network.

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<sup>6</sup> See page 25 of the consultation document.

<sup>7</sup> See page 25 of the consultation document.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

Figure 2: Contracted capacity at the VIP Iberico entry point. Source: ERSE.

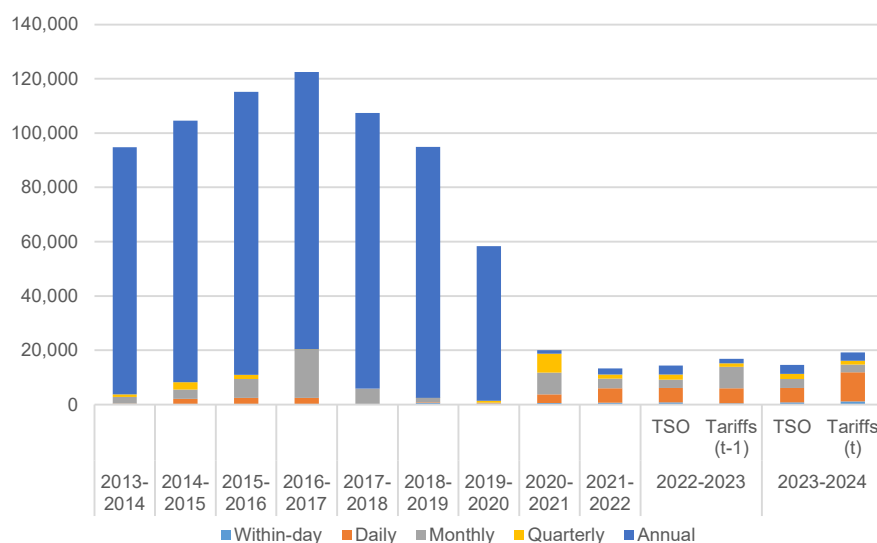
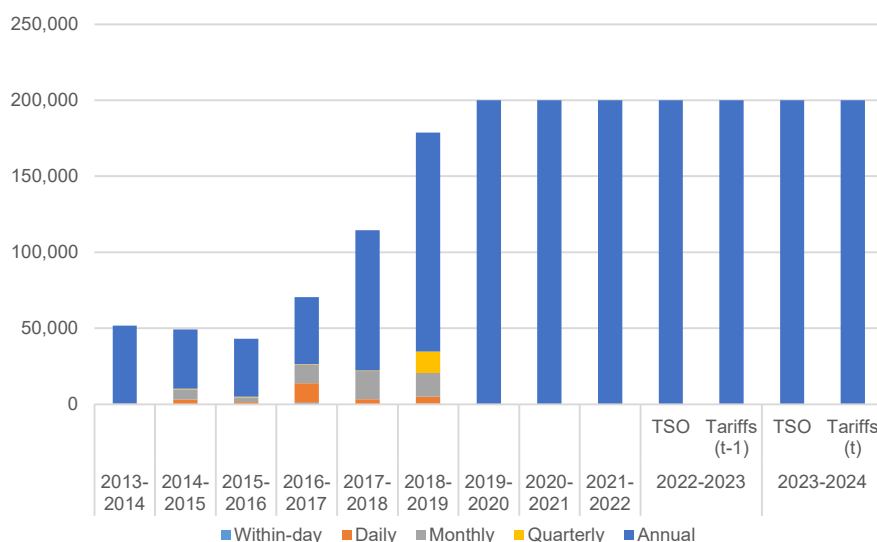


Figure 3: Contracted capacity at the Sines LNG entry point. Source: ERSE.



## 4.2 Description of proposed RPM

- (29) ERSE proposes to apply a CWD methodology where the capacity and the distance cost drivers are modified resulting in the effective capacity and effective distance cost drivers. ERSE justifies this modification based on the aim to reflect the utilisation rate of the network and the difference in costs between transmission and regional networks.

### 4.2.1 Effective capacity cost driver

- (30) ERSE proposes to use the effective capacity cost driver to reflect the commercial utilisation factor of network points. The cost driver is calculated for each point as the commercial<sup>8</sup> capacity divided by the technical capacity. For this calculation, ERSE uses the following formula:

<sup>8</sup> The term 'commercial' is preferable to 'contracted' or 'booked' as not all capacity is billed according to a contracted/booked value (e.g. capacity at domestic exits).

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

$$K_e = K * f$$

$K_e$ : effective capacity

$K$ : forecasted capacity (K)

$f$ : commercial utilisation factor.

- (31) The result is a value that ranges between 0 (for a point with no commercial capacity) and 1 (for a point where the technical capacity is fully utilised). Table 2 and Table 3 below provide the forecasted capacity (first group of rows of the tables), the commercial utilisation factor (second group of rows of the tables) and the resulting effective capacity (third group of rows of the tables).

Table 2 Forecasted capacity, commercial utilisation factor and effective capacity at entry points. Source: ERSE

Forecasted capacity at entry points (Includes yearly and short-term products. Includes firm and interruptible capacity. Conversion internalizes multipliers). (kWh/d)					
Entry point	Type	2023-24	2024-25	2025-26	2026-27
CTS Campo Maior	IP	30,931,240	32,548,788	32,548,788	32,548,788
CTS Valença do Minho	IP	2,308,302	2,429,014	2,429,014	2,429,014
LNG Terminal Sines	LNG terminal	200,000,000	200,000,000	200,000,000	200,000,000
Underground storage Carriço	Underground storage	8,990,276	8,990,276	8,990,276	8,990,276
Gas producers	Producer	1	1	1	1

Commercial utilization factor at entry points					
Entry point	Type	2023-24	2024-25	2025-26	2026-27
CTS Campo Maior	IP	30%	30%	30%	30%
CTS Valença do Minho	IP	30%	30%	30%	30%
LNG Terminal Sines	LNG terminal	99%	99%	99%	99%
Underground storage Carriço	Underground storage	13%	13%	13%	13%
Gas producers	Producer	13%	13%	13%	13%

Effective capacity at entry points. Forecasted capacity in CWD). (kWh/d)					
Entry point	Type	2023-24	2024-25	2025-26	2026-27
CTS Campo Maior	IP	9,309,240	9,796,067	9,796,067	9,796,067
CTS Valença do Minho	IP	694,719	731,050	731,050	731,050
LNG Terminal Sines	LNG terminal	197,327,578	197,327,578	197,327,578	197,327,578
Underground storage Carriço	Underground storage	1,180,232	1,180,232	1,180,232	1,180,232
Gas producers	Producer	0	0	0	0

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

Table 3 Forecasted capacity, commercial utilisation factor and effective capacity at exit points. Source: ERSE

Forecasted capacity at exit points. Includes yearly and short-term products. Includes firm and interruptible capacity. Conversion internalizes multipliers.					
Exit point	Type	2023-24	2024-25	2025-26	2026-27
CTS Campo Maior	IP	16,318,270	17,068,295	17,068,295	17,068,295
CTS Valença do Minho	IP	7,417,395	7,758,316	7,758,316	7,758,316
LNG Terminal Sines	LNG terminal	2	2	2	2
Underground storage Carriço	Underground storage	11,893,400	11,893,400	11,893,400	11,893,400

Commercial utilization factor at exit points					
Exit point	Type	2023-24	2024-25	2025-26	2026-27
CTS Campo Maior	IP	14%	14%	14%	14%
CTS Valença do Minho	IP	14%	14%	14%	14%
LNG Terminal Sines	LNG terminal	0%	0%	0%	0%
Underground storage Carriço	Underground storage	53%	53%	53%	53%

Effective capacity at exit points. Forecasted capacity in CWD)					
Exit point	Type	2023-24	2024-25	2025-26	2026-27
CTS Campo Maior	IP	2,358,335	2,466,730	2,466,730	2,466,730
CTS Valença do Minho	IP	1,071,971	1,121,241	1,121,241	1,121,241
LNG Terminal Sines	LNG terminal	0	0	0	0
Underground storage Carriço	Underground storage	6,281,807	6,281,807	6,281,807	6,281,807

- (32) The resulting cost driver reduces the value of the original capacity cost driver where the point has a low utilisation rate and increases the value of the original capacity cost driver where the point has a high utilisation rate. The purpose of this modification is to provide tariff signals that can allow network users to potentially avoid network costs by using network points that are less utilised. This can potentially reduce additional CAPEX investments in the network. Transmission tariffs increase at points where the utilisation is close to or at the level of the technical capacity.
- (33) The effective capacity driver is complementary to the auction premia, although it is intended to provide a price signal before a point becomes congested.
- (34) The commercial capacity is calculated as the average value for the period 2019 to 2022 (both years included).

### 4.2.1.1 Calculation steps and potential loss of revenue

- (35) The values of the effective capacity cost driver range from 0-100%. It could be possible that the application of the effective capacity cost driver leads to a loss of revenue. However, this is not the case as a result of the following calculation steps:
- ERSE first calculates the effective capacity cost driver.
  - Second, ERSE proposes to calculate the relative cost driver associated with each point of the network.
  - These values are later used to derive the tariffs applicable at each point of the network, which are calculated as the share of revenue allocated to each point divided by the forecasted capacity at the point. It should be noted that in this step, ERSE uses the forecasted capacity

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

and not the effective capacity. As a result, there is no revenue loss resulting from the application of the effective capacity factor.

### 4.2.1.2 Measurement of the capacity cost driver

- (36) ERSE points out, in the consultation document, the various approaches used to measure capacity in the network:
- For points where capacity allocation mechanisms apply (namely at the VIP Iberico, the LNG entry point and point to and from underground storage), capacity is measured based on firm and interruptible capacity and on the duration of the capacity products (annual, quarterly, monthly, daily and within-day time horizons).
  - For domestic exit points, where capacity allocation mechanisms do not apply, the capacity is measured considering the peak capacity, measured by default, as the maximum daily consumption recorded during the last twelve months.

### 4.2.2 Effective distance cost driver

- (37) ERSE proposes to use the effective distance cost driver to reflect investments in GRMS<sup>9</sup>. ERSE proposes to use the economic value factor, which has a value of 132% for entry-exit combinations using GRMS (which are effectively any paths that exits towards domestic users, either in the form of high-pressure customers or in the form of distribution networks) and 100% for all other entry-exit combinations.

- (38) The effective distance cost driver is calculated as follows:

$$D_e = D \cdot v$$

D<sub>e</sub>: Effective distance

D: distance

v: economic value factor

- (39) The application of the effective distance cost driver results in an increase of costs allocated to domestic exits to reflect the difference in investments for transmission and regional networks. The 132% factor applicable to domestic exits was calculated for the 2019 motivated decision<sup>10</sup> and ERSE proposes to keep this factor unchanged.
- (40) The impact of the effective distance cost driver is assessed in the section on regional networks (section 4.6), on the comparison with the CWD (section 4.7) and on the section on the tariffs resulting from the proposed RPM (section 4.4)

### 4.2.3 Entry-exit split

- (41) ERSE proposes to apply an entry-exit split that reflects investments made in the network in the period 2010-22:
- 56% of the investments have taken place in the transmission network.
  - 20% of the investments have taken place in the regional network.

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<sup>9</sup> Page 18 consultation document

<sup>10</sup> Calculated based on the motivated decision of ERSE 2019. See footnote 18 of the consultation document.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- 24% of the investments have taken place in the GRMS.
- (42) The entry-exit split remains unchanged based on ERSE's 2019 motivated decision.
- To establish the share of revenue allocated to entry points, ERSE assumes that the share of transmission revenues related to the transmission pipelines (56%) is allocated on a 50/50 basis, which results in 28% of the total revenue being allocated to entry points.
  - To establish the share of revenue allocated to exit points, ERSE assumes that both the regional networks and the investments at GRMS are allocated on a 0/100 basis, which results in 44% of the revenue being added to the previous 28% allocated to exit points. This results in 72% of the total revenue being allocated to exit points.
- (43) The approach prevents the costs of regional networks being allocated at entry points.

### 4.3 Adjustments and discounts

- (44) ERSE proposes to equalise tariffs applicable to domestic exit points. In addition, ERSE proposes to apply a 100% discount to tariffs applicable to entry points from and exit point to storage facilities. Both adjustments are compliant with Article 6(4) and 9 of the NC TAR.

### 4.4 Tariffs applicable to domestic production points

- (45) ERSE proposes a tariff for domestic injection points for renewable and low carbon gasses. As there are currently no injection points, there is no distance value to calculate the applicable tariffs. ERSE therefore proposes to use the same distance value that is used for the storage points. ERSE proposes to adapt the distance cost driver as these points are added to the network.

### 4.5 Resulting reference prices

- (46) The proposed methodology signals the utilisation rate of the transmission infrastructure, as does the currently applicable methodology. As a result of the changes in contracted capacity, which are described in section 4.1.2 above, the tariff signals provided by the proposed methodology differ compared to those resulting from the currently applicable methodology. The differences between both methodologies are summarised in Table 4 below.

Table 4 Currently applicable reference prices and reference prices resulting from the proposed RPM. Source ERSE

€/MWh/d/year		2023-24	2024-25	% difference
Entries	VIP	91.3	28.6	-68.7%
	LNG	84.1	94.2	12.0%
	Injection	24.7	5.4	-78.1%
Exits	VIP	19.9	54.6	+174.4%
	LNG		-	
	Domestic	159.8	157.0	-2%

- (47) ACER notes the following changes in tariffs, which are related to the underlying changes in the utilisation capacity of the network:

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- The tariff applicable to the entry point from the LNG facility increases 12%. This partly reflects the increase in the utilisation capacity which is summarised in Figure 3.
- The tariff applicable to the entry point from the VIP Iberico decreases 68%. This partly reflects the decrease in the utilisation capacity at this point which is shown in Figure 2.
- The tariff applicable to the exit point from the VIP Iberico increases 174%.

### 4.6 Regional networks

- (48) As described in section 4.1.1, the Portuguese system includes regional networks in addition to AGU. ERSE proposes two instruments to prevent allocating the costs of these networks to the VIP with Spain: the entry-exit split and the effective distance cost driver. This section introduces the various calculations provided in the consultation document and assesses the difference between the resulting tariffs.

#### 4.6.1 Proposed RPM

- (49) ERSE uses the entry-exit split to calculate entry tariffs that do not include any costs associated with regional networks. However, costs associated with regional networks could still spill over to exit points, particularly the VIP Iberico (a 100% discount is applicable to the exit point to storage facilities, so this point would not be affected). To prevent the spill over of regional networks to this exit point, ERSE therefore complements the application of the entry-exit split with the effective distance cost driver. This cost driver increases its value by 132% at domestic exit points while remaining unchanged for the rest of network points. This result is higher costs allocated to domestic exit points compared to the VIP Iberico, which are summarised in Table 5 below.
- (50) While this approach serves to limit the cross-subsidies between transmission networks and regional networks, it only does so partially.

#### 4.6.2 Counter-factual RPM to allocate the costs of regional networks

- (51) To assess the outcome of the proposed RPM, ERSE provides a counter-factual methodology that allows allocating the costs of regional networks exclusively to domestic users. This calculation is based on the two separate methodologies to allocate separately the costs associated with the transmission network and the costs of the regional networks.
- (52) A first methodology is used to allocate the costs of the transmission network and is based on the following specifications:
- Cost drivers of effective capacity and distance. As there is no need to allocate regional networks, ERSE sets the economic value factor to 100% for all entry-exit combinations, affecting the effective distance cost driver.
  - Allocates 56% of the revenue, which corresponds the revenue associated with transmission assets.
  - E/E split of 50/50.
  - The distance matrix is based on the transmission assets and does not take into account regional networks.



## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- (53) A second methodology is used to allocate the costs of regional networks and is based on the following specifications:
- The methodology is a postage stamp.
  - Allocates 44% of the revenue, which ERSE considers to be the costs associated with regional networks.
  - A 0-100% entry-exit split is applied.
  - The methodology is used to set an additional tariff applicable to domestic exits which is not applied to the VIP exit to Spain.
- (54) Compared to the proposed RPM, this counter-factual RPM ensures that no costs from regional networks spill over to transmission network points. This is possible because the costs associated with transmission and regional networks are allocated using different methodologies.

### 4.6.3 Compared results

- (55) In the consultation document ERSE compares the intra-system and cross-system revenue for four different methodologies based on the proposed RPM and from the counter-factual methodology described above. ACER additionally requested the reference prices and the revenue allocated per point resulting from each of these options, which are provided in Table 5 below. The results are summarised in Table 5 below. The four scenarios that ERSE proposes, in addition of the CWD, are the following:
- Option Y: Standard CWD methodology calculated using a 50/50 entry-exit split.
  - Option A<sup>11</sup>: Proposed modified CWD methodology based on an entry-exit split of 50/50. This methodology shows the impact of the effective capacity cost driver when compared to the CWD methodology (option Y)
  - Option B: Proposed modified CWD methodology based on an entry-exit split of 28/72. This methodology shows the impact of the entry-exit split when compared with option A (which is based on an entry-exit split of 50/50). This methodology incorporates the effective capacity cost driver, as option A.
  - Option C: proposed modified CWD methodology. This methodology shows the impact of the effective distance cost driver, which is not used in options A and B.
  - Option D: counter-factual methodology, as described in section 4.6.2. When compared with option C, this methodology shows the potential cross-subsidisation resulting the proposed methodology. Option D prevents cross-subsidies between transmission and both, regional assets.

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<sup>11</sup> In options A and B, the economic value factor 'v' is set to 100% for all entry-exit combinations, meaning that effective distance is always equal to the actual distance.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

Table 5: Reference prices and allocated revenue resulting from various methodologies. Source: ERSE

		Y CWD 50/50	A mCWD 50/50 'v' is set to 100%	B mCWD 28/72 'v' is set to 100%	C mCWD 'v' is set to 132%	D mCWD applied to 56% of the revenue 'v' is set to 132%	Difference between C and D (%)
<b>Reference price, EUR/kWh/d/year</b>							
<b>Cross-system</b>	<b>LNG Entry</b>	0.1511	0.1683	0.0943	0.0942	0.0943	0%
	<b>VIP Exit</b>	0.1226	0.0495	0.0712	0.0546	0.0284	92%
<b>Intra-system</b>	<b>VIP Entry</b>	0.1494	0.0508	0.0284	0.0286	0.0284	1%
	<b>LNG Entry</b>	0.1511	0.1683	0.0943	0.0942	0.0943	0%
	<b>Domestic exits</b>	0.1024	0.1081	0.1557	0.1570	0.1591	-1%
<b>Revenues, EUR</b>							
<b>Cross-system</b>	<b>LNG Entry</b>	3,751,422.46	4,178,454	2,339,934	2,339,212	2,340,013	0%
	<b>VIP Exit</b>	3,040,673.19	1,227,678	1,767,857	1,354,836	706,274	92%
<b>Intra-system</b>	<b>VIP Entry</b>	5,223,391.62	1,776,093	994,612	1,000,431	993,976	1%
	<b>LNG Entry</b>	26,469,555.25	29,482,635	16,510,276	16,505,179	16,510,834	0%
	<b>Domestic exits</b>	32,405,672.61	34,209,504	49,261,685	49,674,706	50,323,268	-1%
<b>Total revenue</b>		<b>EUR 70,874,364.32</b>					

- (56) The reference prices resulting from option D prevent the allocation of costs associated with regional network and AGU to points of the transmission network. In order to assess the effectiveness of the proposed RPM to meet this goal, the tariffs for domestic exit points and for the VIP Iberico exit should be compared. The proposed methodology results in a tariffs which is 92% higher at the VIP Iberico exit compared to option D (0.0546 EUR/kWh/d/y compared to 0.0284 EUR/kWh/d/y). This results in EUR 648,562 of costs associated with regional networks allocated to the VIP Iberico.
- (57) In bilateral exchanges after the end of the consultation, ERSE explained to the Agency that the proposed RPM can be adjusted to limit the allocation of regional networks to domestic exit points. This is possible by modifying the economic value factor that is used to calculate the effective distance cost driver, which is applied to domestic exit points and is set to a value of 132%. The Agency understands, in view of this outcome, that the proposed RPM can be modified to accurately allocate the costs of regional networks to domestic exit points and not to the VIP Iberico or to other transmission points.

#### 4.6.4 ACER conclusion

- (58) Based on the results of the different methodologies, the Agency acknowledges the capacity of the proposed RPM to partially allocate the costs of regional networks to users of this infrastructure. This objective is achieved by the combined utilisation of the proposed entry-exit split and the effective distance cost driver.
- (59) At the same time, the Agency notes that the proposed methodology does not fully allocate the costs of this infrastructure to domestic exit points. In particular, EUR 648,562 per year related to regional network are allocated at the VIP Iberico. The Agency further notes that cross-subsidies do not affect

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

entry tariffs as a result of the proposed entry-exit split. This implies that the effective distance cost driver does not fully prevent cross-subsidisation resulting from the allocation of regional networks.

- (60) The Agency further notes that the allocation of regional networks to domestic exit points is an important aspect when eliminating a cross-border point, as it is being considered by ERSE and CNMC for the VIP Iberico<sup>12</sup> Setting cost reflective tariffs limits cross-subsidisation and simplifies reaching an agreement on a potential inter-TSO compensation mechanism (ITC).
- (61) Based on this reasoning, the Agency extends the recommendation previously made in other ACER consultation reports<sup>13</sup> to allocate the costs associated with regional networks:
- First, in cases where regional networks are in place, these costs can be allocated using the RPM, should the proposed methodology prove capable of allocating the costs related to regional networks to domestic users only.
  - Second, should the allocation of the costs of regional networks to domestic end users not be possible under the proposed RPM, the Agency recommends changing the category of regional networks to distribution, allocating these costs outside the RPM
- (62) The Agency understands that the proposed RPM can be adapted to fully meet the first option referred to in the previous paragraph. To assess the effectiveness of the proposed RPM, the Agency recommends ERSE to compare the results of the proposed RPM with the results of the methodology described in section 4.6.2 of this report.
- (63) In addition, the Agency recommends ERSE to assess that the costs of regional networks and AGU are adequately allocated to domestic exit points when considering the allowed revenue allocated using the RPM. The proposed methodology allocates costs based on the investments that have taken place in the transmission network, regional networks and AGU, over a period of time. In particular, both the entry-exit split and the efficient distance cost drivers are set based on investments and not on the total allowed revenue of the TSO. The Agency recommends that ERSE assess the cost-reflectivity of the RPM considering the total costs of these networks in addition to considering the already proposed approach, which is based on investments. The Agency understand that such analysis will necessarily be based on assumptions, which ERSE can provide as part of the assessment.

### 4.7 Comparison with the CWD methodology

- (64) In addition to the methodology comparisons that ERSE provides to assess the impact of regional networks, ERSE further compares the proposed methodology with the CWD and postage methodologies calculated based on the following specifications:
- CWD methodology with a 50/50 entry-exit split

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<sup>12</sup> As referred in the consultation document: “ERSE is currently developing a study, together with the national regulatory authority in Spain (CNMC, Comisión Nacional de los Mercados y la Competencia), regarding the role of tariffs in the integration of the gas markets in Spain and Portugal. As mentioned in the work programme of the Southern Regional Gas Initiative, the study must evaluate a set of options, including the elimination of the tariff at the interconnection point between Portugal and Spain and the application of a common reference price methodology for transmission tariffs in both countries. The next periodic consultation to be carried out by ERSE will benefit from the conclusions of this joint study”.

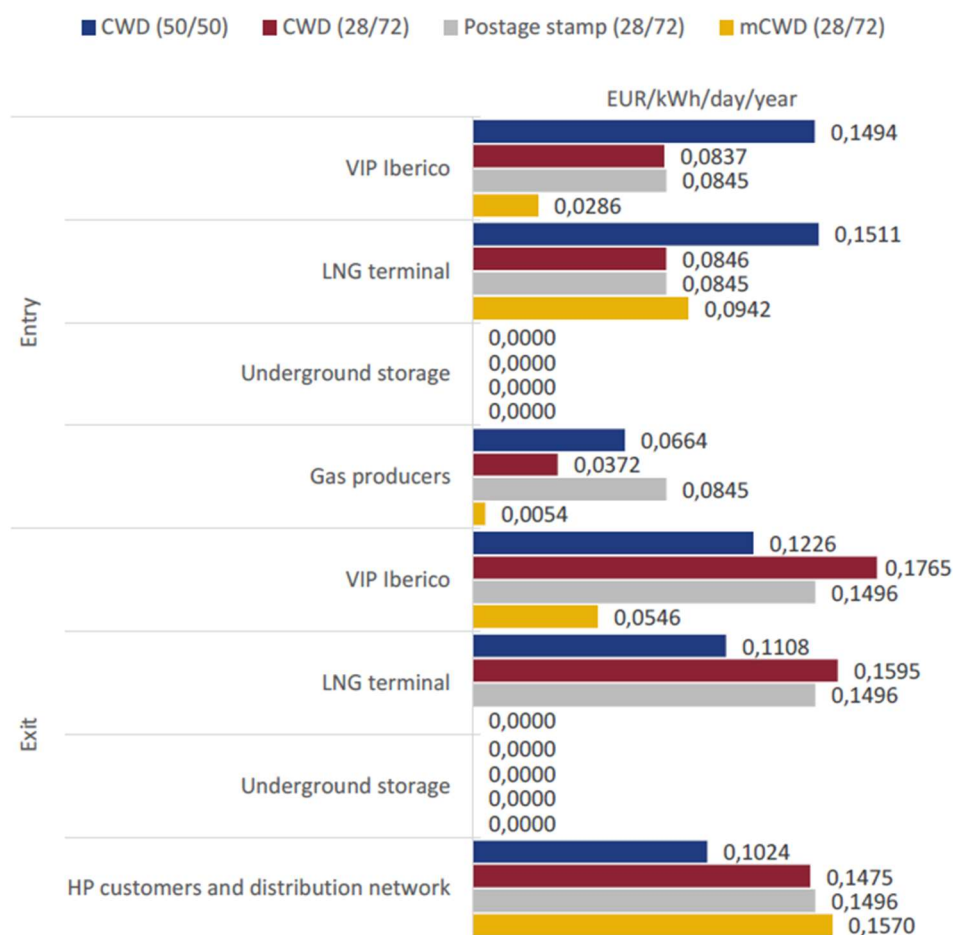
<sup>13</sup> See footnote 3.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- CWD methodology using a 28/72 entry-exit split, as the proposed RPM.
- Postage stamp methodology using a 28/72 entry-exit split, as the proposed RPM.

(65) The results of the comparison are summarised in Figure 4 below.

Figure 4 Comparison between the proposed RPM and the CWD and postage stamp methodologies. Source: ERSE



(66) The Agency considers that the results of the comparison support the choice of the proposed RPM. The proposed RPM provides locational signals, as the CWD methodology. However, the proposed RPM can signal network utilisation and can partially allocate the costs of regional networks to domestic exit points (based on the effective distance cost driver). At the same time, the Agency refers to the previous section on regional networks where the limitations of the proposed RPM to allocate these costs are discussed.

### 4.8 Cost allocation assessment

(67) ERSE provides the CAA results for four different methodology configurations. Table 6 summarises the results. The costs drivers used for these calculations are the forecasted contracted capacity and the distance.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

Table 6: Components and results for the proposed CAA calculations. Source: ERSE.

		CWD 50/50	CWD 28/72	Postage stamp 28/72	mCWD 28/72
<b>Revenues</b>					
Cross-system	million €	6,79	6,48	5,81	3,69
Intra-system	million €	64,08	64,39	65,06	67,18
<b>Cost driver</b>					
Cross-system	%	9,40%	8,96%	8,96%	5,16%
Intra-system	%	90,60%	91,04%	91,04%	94,84%
<b>Ratio = Revenues ÷ Cost driver</b>					
Cross-system	million €	72,29	72,38	64,87	71,65
Intra-system	million €	70,73	70,73	71,46	70,83
<b>Capacity cost allocation comparison index</b>		(-) 2,2%	(-) 2,3%	(+) 9,7%	(-) 1,2%

- (68) The Agency notes that all the results are within the 10% threshold in Article 5(6) of the NC TAR and do not need further justification.

## 5. Compliance

### 5.1 Does the RPM comply with the requirements set out in Article 7?

- (69) Article 27(2)(b)(1) of the NC TAR requires the Agency to analyse whether the proposed reference price methodology complies with the requirements set out in Article 7 of the NC TAR. This article refers to Article 13 of Regulation (EC) 715/2009 and lists a number of requirements to take into account when setting the RPM. As these overlap, in the remainder of this chapter, the Agency will take a closer look at the five elements listed in Article 7 of the NC TAR.
- (70) As the concepts of transparency, cost reflectivity, non-discrimination, cross-subsidisation and cross border trade are closely related the Agency concludes with an overall assessment. Special attention is paid to the allocation of revenues between domestic and transit routes.

#### 5.1.1 Transparency

- (71) **Article 7(a)** of the NC TAR requires that the RPM aims at ensuring that network users can reproduce the calculation of reference prices and their accurate forecast. The Agency considers that network users would be able to reproduce the calculation of reference prices. The Agency further considers that network users would be able to forecast the reference prices.
- (72) The Agency remarks that the methodology proposed by ERSE entails some degree of complexity. At the same time, this more complex approach to a modified CWD is underpinned with a stepwise description complemented with comparisons with relevant methodologies. ERSE additionally provides the CAA calculations for various of these methodologies. This information contributes to making the proposed methodology understandable.

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

### 5.1.2 Cost-reflectivity

- (73) **Article 7(b)** of the NC TAR requires the RPM to take into account the actual costs incurred for the provision of transmission services, considering the level of complexity of the transmission network.
- (74) Following the conclusion on regional networks in section 4.6.4, the compliance of the methodology with the requirements on cost reflectivity is subject to the accurate allocation of the costs of regional networks to users of this infrastructure (i.e. domestic exit points and not IPs or entry points to the network). The Agency therefore refers to the recommendations made in section 4.6.4.

### 5.1.3 Cross-subsidisation and non-discrimination

- (75) **Article 7(c)** of the NC TAR requires the RPM to ensure non-discrimination and prevent undue cross-subsidisation.

#### 5.1.3.1 Cross-subsidisation

- (76) The Agency refers to the conclusion on cost-reflective in paragraph (74) above.
- (77) Additionally, the Agency refers to the results of the CAA provided in the consultation document, which are assessed in section 4.8 above. The value of the CAA for the proposed methodology is within the 10% threshold Article 5(6) of the NC TAR and does not require further justification.

#### 5.1.3.2 Non-discrimination

- (78) The Agency has not identified any form of discrimination related to the proposed RPM. This analysis is based on the definition of 'discrimination' as 'charging different prices to different network users for the identical gas transmission service'.

### 5.1.4 Volume risk

- (79) **Article 7(d)** of the NC TAR requires that the RPM ensures that significant volume risk related particularly to transports across an entry-exit system is not assigned to final customers within that entry-exit system. In Portugal, it is not the case that significantly more gas is transported than used for consumption. There is therefore no significant volume risk in Portugal and the proposed RPM can therefore be deemed as compliant with the requirement on volume risk.

### 5.1.5 Cross-border trade

- (80) **Article 7(e)** of the NC TAR requires that the RPM ensures that the resulting reference prices do not distort cross-border trade.
- (81) The Agency refers to the conclusion on cost-reflectivity in paragraph (74) above.

## Annex 1: Legal framework

(82) Article 27 of the NC TAR reads:

1. *Upon launching the final consultation pursuant to Article 26 prior to the decision referred to in Article 27(4), the national regulatory authority or the transmission system operator(s), as decided by the national regulatory authority, shall forward the consultation documents to the Agency.*

2. *The Agency shall analyse the following aspects of the consultation document:*

*(a) whether all the information referred to in Article 26(1) has been published;*

*(b) whether the elements consulted on in accordance with Article 26 comply with the following requirements:*

*(1) whether the proposed reference price methodology complies with the requirements set out in Article 7;*

*(2) whether the criteria for setting commodity-based transmission tariffs as set out in Article 4(3) are met;*

*(3) whether the criteria for setting non-transmission tariffs as set out in Article 4(4) are met.*

3. *Within two months following the end of the consultation referred to in paragraph 1, the Agency shall publish and send to the national regulatory authority or transmission system operator, depending on which entity published the consultation document, and the Commission the conclusion of its analysis in accordance with paragraph 2 in English.*

*The Agency shall preserve the confidentiality of any commercially sensitive information.*

4. *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 to the Agency and the Commission its decision.*

5. *The procedure consisting of the final consultation on the reference price methodology in accordance with Article 26, the decision by the national regulatory authority in accordance with paragraph 4, the calculation of tariffs on the basis of this decision, and the publication of the tariffs in accordance with Chapter VIII may be initiated as from the entry into force of this Regulation and shall be concluded no later than 31 May 2019. The requirements set out in Chapters II, III and IV shall be taken into account in this procedure. The tariffs applicable for the prevailing tariff period at 31 May 2019 will be applicable until the end thereof. This procedure shall be repeated at least every five years starting from 31 May 2019.*

(83) Article 26(1) of the NC TAR reads:

1. *One or more consultations shall be carried out by the national regulatory authority or the transmission system operator(s), as decided by the national regulatory authority. To the extent possible and in order to render more effective the consultation process, the consultation document should be published in the English language. The final consultation prior to the decision referred to in Article 27(4) shall comply with the requirements set out in this Article and Article 27, and shall include the following information:*

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

*(i) the indicative information set out in Article 30(1)(a), including:*



## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

- (1) the justification of the parameters used that are related to the technical characteristics of the system;
        - (2) the corresponding information on the respective values of such parameters and the assumptions applied.
      - (ii) the value of the proposed adjustments for capacity-based transmission tariffs pursuant to Article 9;
      - (iii) the indicative reference prices subject to consultation;
      - (iv) the results, the components and the details of these components for the cost allocation assessments set out in Article 5;
      - (v) the assessment of the proposed reference price methodology in accordance with Article 7;
      - (vi) where the proposed reference price methodology is other than the capacity weighted distance reference price methodology detailed in Article 8, its comparison against the latter accompanied by the information set out in point (iii);
    - (b) the indicative information set out in Article 30(1)(b)(i), (iv), (v);
    - (c) the following information on transmission and non-transmission tariffs:
      - (i) where commodity-based transmission tariffs referred to in Article 4(3) are proposed:
        - (1) the manner in which they are set;
        - (2) the share of the allowed or target revenue forecasted to be recovered from such tariffs;
        - (3) the indicative commodity-based transmission tariffs;
      - (ii) where non-transmission services provided to network users are proposed:
        - (1) the non-transmission service tariff methodology therefor;
        - (2) the share of the allowed or target revenue forecasted to be recovered from such tariffs;
        - (3) the manner in which the associated non-transmission services revenue is reconciled as referred to in Article 17(3);
        - (4) the indicative non-transmission tariffs for non-transmission services provided to network users;
    - (d) the indicative information set out in Article 30(2);
    - (e) where the fixed payable price approach referred to in Article 24(b) is considered to be offered under a price cap regime for existing capacity:
      - (i) the proposed index;
      - (ii) the proposed calculation and how the revenue derived from the risk premium is used;
      - (iii) at which interconnection point(s) and for which tariff period(s) such approach is proposed;
      - (iv) the process of offering capacity at an interconnection point where both fixed and floating payable price approaches referred to in Article 24 are proposed.
- (84) Article 7 of the NC TAR reads:

The reference price methodology shall comply with Article 13 of Regulation (EC) No 715/2009 and with the following requirements. It shall aim at:

  - a) enabling network users to reproduce the calculation of reference prices and their accurate forecast;
  - b) taking into account the actual costs incurred for the provision of transmission services considering the level of complexity of the transmission network;
  - c) ensuring non-discrimination and prevent undue cross-subsidisation including by taking into account the cost allocation assessments set out in Article 5;

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

*(d) ensuring that significant volume risk related particularly to transports across an entry-exit system is not assigned to final customers within that entry-exit system;*

*(e) ensuring that the resulting reference prices do not distort cross-border trade.*

(85) Article 13 of Regulation (EC) No 715/2009 reads:

*1. Tariffs, or the methodologies used to calculate them, applied by the transmission system operators and approved by the regulatory authorities pursuant to Article 41(6) of Directive 2009/73/EC, as well as tariffs published pursuant to Article 32(1) of that Directive, shall be transparent, take into account the need for system integrity and its improvement and reflect the actual costs incurred, insofar as such costs correspond to those of an efficient and structurally comparable network operator and are transparent, whilst including an appropriate return on investments, and, where appropriate, taking account of the benchmarking of tariffs by the regulatory authorities. Tariffs, or the methodologies used to calculate them, shall be applied in a nondiscriminatory manner.*

*Member States may decide that tariffs may also be determined through market-based arrangements, such as auctions, provided that such arrangements and the revenues arising therefrom are approved by the regulatory authority.*

*Tariffs, or the methodologies used to calculate them, shall facilitate efficient gas trade and competition, while at the same time avoiding cross-subsidies between network users and providing incentives for investment and maintaining or creating interoperability for transmission networks.*

*Tariffs for network users shall be non-discriminatory and set separately for every entry point into or exit point out of the transmission system. Cost-allocation mechanisms and rate setting methodology regarding entry points and exit points shall be approved by the national regulatory authorities. By 3 September 2011, the Member States shall ensure that, after a transitional period, network charges shall not be calculated on the basis of contract paths.*

*2. Tariffs for network access shall neither restrict market liquidity nor distort trade across borders of different transmission systems. Where differences in tariff structures or balancing mechanisms would hamper trade across transmission systems, and notwithstanding Article 41(6) of Directive 2009/73/EC, transmission system operators shall, in close cooperation with the relevant national authorities, actively pursue convergence of tariff structures and charging principles, including in relation to balancing.*

(86) Article 4(3) of the NC TAR reads:

*3. The transmission services revenue shall be recovered by capacity-based transmission tariffs. As an exception, subject to the approval of the national regulatory authority, a part of the transmission services revenue may be recovered only by the following commodity-based transmission tariffs which are set separately from each other:*

*(a) a flow-based charge, which shall comply with all of the following criteria:*

- (i) levied for the purpose of covering the costs mainly driven by the quantity of the gas flow;*
- (ii) calculated on the basis of forecasted or historical flows, or both, and set in such a way that it is the same at all entry points and the same at all exit points;*
- (iii) expressed in monetary terms or in kind.*

*(b) a complementary revenue recovery charge, which shall comply with all of the following criteria:*

- (i) levied for the purpose of managing revenue under- and over-recovery;*
- (ii) calculated on the basis of forecasted or historical capacity allocations and flows, or both;*

## ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR PORTUGAL

*(iii) applied at points other than interconnection points;*

*(iv) applied after the national regulatory authority has made an assessment of its cost-reflectivity and its impact on cross-subsidisation between interconnection points and points other than interconnection points.*

(87) Article 4(4) of the NC TAR reads:

*4. The non-transmission services revenue shall be recovered by non-transmission tariffs applicable for a given nontransmission service. Such tariffs shall be as follows:*

*(a) cost-reflective, non-discriminatory, objective and transparent;*

*(b) charged to the beneficiaries of a given non-transmission service with the aim of minimising cross-subsidisation between network users within or outside a Member State, or both.*

*Where according to the national regulatory authority a given non-transmission service benefits all network users, the costs for such service shall be recovered from all network users.*

## Annex 2: List of abbreviations

Acronym	Definition
<b>ACER</b>	Agency for the Cooperation of Energy Regulators
<b>ENTSOG</b>	European Network of Transmission System Operators for Gas
<b>NRA</b>	National Regulatory Authority
<b>TSO</b>	Transmission System Operator
<b>EC</b>	European Commission
<b>EU</b>	European Union
<b>MS</b>	Member State
<b>NC TAR</b>	Network code on harmonised transmission tariff structures for gas
<b>IP</b>	Interconnection Point
<b>VIP</b>	Virtual Interconnection Point
<b>RPM</b>	Reference Price Methodology
<b>CWD</b>	Capacity Weighted Distance
<b>CAA</b>	Cost Allocation Assessment
<b>RAB</b>	Regulated Asset Base
<b>OPEX</b>	Operational Expenditures
<b>CAPEX</b>	Capital Expenditures