

Agency Report

Analysis of the Consultation Document on the Gas Transmission Tariff Structure for Hungary

NRA: Magyar Energetikai És Közmű-Szabályozási Hivatal (MEKH) TSO: FGSZ Földgázszállító Zártkörűen Működő Részvénytársaság (FGSZ) and Magyar Gáz Tranzit Zártkörűen Működő Részvénytársaság (MGT).

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1. ACER conclusion

- (1) The Hungarian national regulatory authority ('NRA'), Magyar Energetikai És Közmű-szabályozási Hivatal ('MEKH'), proposes a postage stamp reference price methodology ('RPM'), with a 40-60 entry-exit split. MEKH proposes to apply a 90% discount at entry points from storage facilities and a 100% discount at exit points to storage facilities. MEKH also proposes a commodity-based charge and charges for non-transmission services. The consultation document covers two Gas Years: 2019-20 and 2020-21. The Agency for the Cooperation of Energy Regulators ('the Agency') observes that MEKH conducts the consultation in English, providing transparency also to non-Hungarian stakeholders. MEKH has additionally carried out a consultation for the inter-transmission system operator compensation ('ITC') mechanism.
- (2) The Agency notes that there are several requirements pursuant to Article 26(1) of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a Network Code on Harmonised Transmission Tariff Structures for Gas ('NC TAR') that are not fully met in the consultation document.
 - The assessment of the RPM against the requirements in Article 7 of the NC TAR is incomplete and insufficient;
 - The consultation proposes the application of discounts to points from and to storage. These
 discounts are not taken into account when calculating the cost allocation assessment¹ ('CAA')
 and the various ratios² listed under Article 30(1)(b)(v) of the NC TAR. The approach taken
 significantly affects the result of these calculations;
 - MEKH proposes to apply a rescaling adjustment. However, the application of this adjustment aims at maintaining tariff stability and not at managing the under-recovery resulting from the application of storage discounts. As a result, the proposed tariffs lead to an under-recovery of revenues and consequently to inter-temporal cross-subsidies. This approach is not compliant with the objective of minimizing the regulatory account and of recovering the transmission revenue in a timely manner, as stated in Articles 17(1)(a) and (b) of the NC TAR;
 - The comparison between the proposed postage stamp methodology and the capacity-weighted distance ('CWD') methodology is not valid as both methodologies lead to different levels of revenue recovery. This structural mismatch is not sufficiently described in the consultation document.
- (3) The NC TAR foresees the calculation of the CAA. MEKH provides a calculation that does not take into account the application of storage discounts and that results in 8.7%. The Agency has calculated the CAA based on the applied discounts to storage which results in 17%. This figure is above the 10% threshold stated in Article 5(6) of the NC TAR and requires a justification.

 $^{^1}$ Throughout this document, 'CAA' is used to refer to the capacity cost allocation comparison index described in Article 5(3)(c) of the NC TAR.

² Capacity-commodity split, entry-exit split, intra-system/cross-system split.

- (4) The Agency, on the basis of the analysis of the consultation document, and taking into account the limitations resulting from the information provided and from the proposed adjustments, concludes pursuant to Article 27(2) of the NC TAR that:
 - Most of the information required by Article 26(1) of the NC TAR has been published, with the
 exception of the elements indicated in Table 1 of this Report. Among the missing information is
 a complete and satisfactory assessment of the proposed RPM in accordance with Article 7 of
 the NC TAR.
 - Absent such assessment, the Agency concludes that the RPM is not compliant with the requirements of cost-reflectivity, preventing undue cross-subsidisation, not distorting crossborder trade laid out under Article 7 of the NC TAR. The RPM complies with the requirement of ensuring non-discrimination. The Agency could not conclude that the RPM is compliant with the requirement of managing volume risk.
 - The proposed commodity-based tariffs are compliant with the criteria set out in Article 4(3) of the NC TAR.
 - On the criteria for setting non-transmission charges, MEKH does not include an assessment against the criteria of Article 4(1) of the NC TAR, on whether the proposed non-transmission services should indeed qualify as non-transmission services. At the same time, the Agency concludes that the proposed non-transmission services satisfy the criteria of Article 4(4)(a) of the NC TAR since they are charged in a cost-reflective, non-discriminatory, objective and transparent way. The Agency also considers that the proposed non-transmission services satisfy the criteria of Article 4(4)(b) of the NC TAR since they are charged to the beneficiaries of the services and therefore they do not create subsidies between network users within or outside Hungary.
- (5) The Agency recommends MEKH to consider the following aspects to be included in the motivated decision referred to in Article 27(4) of the NC TAR:
 - a proper assessment and a detailed justification of the proposed RPM against the criteria set out in Article 7 of the NC TAR, in particular against the cost-reflectivity principle, which also affects the compliance of the RPM with regards to the avoidance of cross-subsidies and the non-distortion of cross-border trade.
 - the application of adjustments in compliance with the NC TAR as outlined in this analysis.
 - an explanation of the principles underlying the choice of the 40/60 entry-exit split and, overall, more transparency regarding the entry-exit split resulting after adjustments should be provided.
 - the effects of storage discounts on tariffs, in particular concerning the CAA, Article 30(1)(b)(v) ratios, and the timely recovery of capacity-based allowed revenues should be assessed.
 - the calculation of the CAA for the proposed RPM and for the CWD methodology. The Agency recommends this as a best practice.
 - a more detailed explanation of the way in which the rescaling factor is set. This explanation should reflect how the application of rescaling is related to other parameters of the RPM (e.g. storage discounts), and how the application of rescaling aims at ensuring that the allowed revenue is met.
 - a more detailed description of the non-transmission tariff formulae, including the underlying assumptions, in order to allow network users to forecast the possible evolution of non-transmission tariffs.

2. Introduction

- (6) Commission Regulation (EU) 2017/460 of 16 March 2017 establishes a network code on harmonised transmission tariff structures for gas (NC TAR).
- (7) Article 27 of the NC TAR requires the Agency to analyse the consultation documents on the reference price methodologies for all entry-exit systems³. This Report presents the analysis of the Agency for the RPM for the transmission system of Hungary.
- (8) The Agency notes that the consultation document on the ITC mechanism, as referred to in Article 10(5) of the NC TAR, was published at the same time as the consultation document on the RPM. However, Article 27(1) of the NC TAR only requires the NRA or TSO to forward the consultation document pursuant to Article 26 of the NC TAR to the Agency. Therefore, the Agency did not analyse the consultation document on the ITC mechanism.
- (9) MEKH forwarded the consultation document to the Agency on 31 October 2018. The consultation was launched on the same date, and remained open until 15 January 2019. MEKH informed the Agency of the publication of the responses to the consultation accompanied by a short summary on 18 March 2019. 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, MEKH shall take and publish a motivated decision on all the items set out in Article 26(1) of the NC TAR.
- (10) A number of bilateral exchanges to collect additional information took place between MEKH and the Agency. MEKH provided information in a timely and clear manner. The Agency appreciates the interactions with MEKH during the process, as they supported the development of the analysis.

Reading guide

(11) Chapter 3 presents an analysis on completeness, namely if all the information in Article 26(1) has been published. Chapter 4 focusses on compliance, namely if the RPM complies with the requirements set out in Article 7 of the code, if the criteria for setting commodity-based transmission tariffs as set out in Article 4(3) are met and if the criteria for setting non-transmission tariffs as set out in Article 4(4) are met. This document contains two annexes, respectively on the legal framework and a list of abbreviations.

3. Completeness

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

(12) 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.

³ With the exception of article 10(2)(b), when different RPMs may be applied by the TSOs within an entry-exit zone.

- (13) Article 26(1) of the NC TAR requires that the consultation document be published in the English language, to the extent possible. The Agency confirms that the consultation document was published in English.
- (14) Most of the information in Article 26(1) of the NC TAR has been published, although it could be improved in some aspects as listed in Table 1. In addition, the Agency makes the following remarks:
 - A complete and satisfactory assessment of the proposed RPM in accordance with Article 7 of the NC TAR is missing⁴. The Agency considers that the lack of such an assessment leads to non-compliance with the requirement in Article 26(1)(a)(v) of the NC TAR.
 - Several requirements of the NC TAR are calculated without due consideration to the storage discounts applied to storage entries (90%) and exits (100%), in particular, the CAA and the ratios listed under Article 30(1)(b)(v)⁵.
 - The map containing the structural representation of the transmission network does not include the Magyar Gáz Tranzit ('MGT') pipeline. A comprehensive map is contained in the annual report by MEKH on the Hungarian gas system⁶.
- (15) Also, the Agency notes that a large share of information pursuant Article 26(1) of the TAR NC has been published in an Excel file (Annex 2), including the assessment as per Article 26(1)(a)(v) and the explanation as per Article 26(1)(b). The Agency would welcome the information and text descriptions to be included in a single text document, in order to make them accessible and readable to network users and increase the understanding of the considerations made by MEKH as part of its tariff setting process. The Agency recalls that Article 41(16) of Directive 2009/73/EC⁷ requires that 'Decisions taken by regulatory authorities shall be fully reasoned and justified to allow for judicial review.'

Article	Information	Published: Y/N/NA
26(1)(a)	the description of the proposed reference price methodology	Yes
26(1)(a)(i) 26(1)(a)(i)(1) 26(1)(a)(i)(2)	 the indicative information set out in Article 30(1)(a), including: the justification of the parameters used that are related to the technical characteristics of the system the corresponding information on the respective values of such parameters and the assumptions applied 	Yes
26(1)(a)(ii)	the value of the proposed adjustments for capacity-based transmission tariffs pursuant to Article 9	Yes
26(1)(a)(iii)	the indicative reference prices subject to consultation	Yes

 Table 1 Checklist information Article 26(1)

⁴ The assessment is included in the section of Annex 2 containing the comparison with the capacity weighted distance methodology.

⁵ Capacity-commodity split, entry-exit split, intra-system/cross-system split.

⁶ http://www.mekh.hu/a-magyar-foldgazrendszer-2017-evi-adatai - page 18.

⁷ Directive 2009/73/EC of the European parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, OJEU L-211, 14 August 2009

26(1)(a)(iv)	the results, the components and the details of these components for the cost allocation assessments set out in Article 5	Yes, although it has been performed without due regard to the storage discount
26(1)(a)(v)	the assessment of the proposed reference price methodology in accordance with Article 7	Partially. The assessment is limited.
26(1)(a)(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)	Yes
26(1)(b)	the indicative information set out in Article 30(1)(b)(i), (iv), (v)	Partially. The ratios in Article 30(1)(b) (v) have been calculated without due regard to the storage discount
26(1)(c)(i) 26(1)(c)(i)(1) 26(1)(c)(i)(2) 26(1)(c)(i)(3)	 where commodity-based transmission tariffs referred to in Article 4(3) are proposed the manner in which they are set the share of the allowed or target revenue forecasted to be recovered from such tariffs the indicative commodity-based transmission tariffs 	Yes
26(1)(c)(ii) 26(1)(c)(ii(1) 26(1)(c)(ii)(2) 26(1)(c)(ii)(3) 26(1)(c)(ii)(4)	 where non-transmission services provided to network users are proposed: the non-transmission service tariff methodology the share of the allowed or target revenue forecasted to be recovered from such tariffs the manner in which the associated non-transmission services revenue is reconciled as referred to in Article 17(3) the indicative non-transmission tariffs for non-transmission services provided to network users 	Partially, the items listed in the 1 st and 2 nd bullet points are sometimes insufficient.
26(1)(d)	the indicative information set out in Article 30(2);	Yes
26(1)(e) 26(1)(e)(i) 26(1)(e)(ii) 26(1)(e)(iii) 26(1)(e)(iv)	 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: the proposed index; the proposed calculation and how the revenue derived from the risk premium is used at which interconnection point(s) and for which tariff period(s) such approach is proposed the process of offering capacity at an interconnection point where both fixed and floating payable price approaches referred to in Article 24 are proposed 	Not applicable

4. Compliance

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

- (16) Article 27(2)(b)(1) of the NC TAR requires the Agency to analyse whether the proposed RPM complies with the requirements set out in Article 7 of the NC TAR. This article refers to Article 13 of Regulation (EC) No 715/2009 and lists a number of requirements to be taken 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.
- (17) As the concepts of transparency, cost reflectivity, non-discrimination, cross-subsidisation and distortion of cross border trade are closely related, the Agency concludes with an overall assessment.

4.1.1 Introductory remarks on the assessment performed by the Agency

- (18) The Agency notes that there are several requirements about the elements which need to be included in the consultation document, pursuant to Article 26 of the NC TAR, that are not fully met. These elements are:
 - The assessment of the RPM against the requirements in Article 7 of the NC TAR is incomplete and insufficient.
 - The consultation proposes the application of discounts to points from and to storage. These discounts are not taken into account when calculating the CAA and the various ratios listed under Article 30(1)(b)(v) of the NC TAR and significantly affect the result of these calculations.
 - MEKH proposes to apply a rescaling adjustment, however this calculation is disjoint from the application of discounts to storage. As a result, the proposed tariffs lead to an under-recovery of revenues.
 - The CAA, when calculated on the basis of adjusted reference prices (i.e. including rescaling and discounts to storages), results in 17%. This figure is not provided in the consultation document, and remains without the justification required by Article 5(6) of the NC TAR, as it is above the 10% threshold referred to in this Article.
 - The comparison between the proposed postage stamp methodology and the CWD methodology is not fully valid and it can be misleading, as both methodologies lead to different levels of revenue recovery.
- (19) On the basis of the information provided in the consultation document, the Agency cannot conclude the assessment of the proposed RPM. In particular, it is not possible to assess the appropriateness of the RPM. Consequently, it is not possible fully to assess the proposed RPM against the requirements listed under Article 7 of the NC TAR. The following sections provide the analysis completed by the Agency, based on the information provided by MEKH in the consultation document.

4.1.2 Transparency

- (20) **Article 7(a)** of the NC TAR requires that the RPM aim at ensuring that network users can reproduce the calculation of reference prices and their accurate forecast.
- (21) On the choice of the postage stamp methodology, the Agency considers that this RPM facilitates transparency on the tariff structure, as it is easy to understand and replicate. However, the Agency raises several transparency concerns, related to the elements listed in paragraph (18) above, regarding the way in which adjustments are performed, as well as the way in which they have been considered in the overall assessment of the methodology performed by MEKH.

4.1.2.1 Application of storage discounts

- (22) MEKH proposes to apply storage discounts. However, the consultation document is not transparent on the amount of under-recovery generated by this adjustment, and on the way in which the resulting missing revenues are recovered. In particular, under the information provided pursuant Article 30(2) for Gas Year 2020-21, MEKH predicts adjustments due to the reconciliation of the regulatory account that shall be equal to zero;
- (23) In addition, not taking into account discounts to storage also affects the information provided pursuant Article 26(1)(b), i.e. the ratios for the transmission services revenue: in particular, when considering the storage discount:
 - the resulting entry-exit split (including the effects of the rescaling factor) would be 46/54 instead of 40/60;
 - the resulting capacity-commodity split would be 84.43/15.57 instead of 85.12/14.88.
 - the resulting intra-system-cross-system split would be 70.08/29.92 instead of 71.75/28.25.

4.1.2.2 Application of rescaling

- (24) MEKH proposes to make use of a multiplying rescaling factor at entry and exit points. While the application of this adjustment is assessed in the section below (on cost-reflectivity), the Agency notes that the proposed application of rescaling limits the transparency provided to network users:
 - MEKH proposes to apply a factor, ranging between -1.3 and +1.3, that changes every tariff year. This variability impedes the accurate forecast of reference prices in future years. Only qualitative criteria, rather than quantitative ones, are provided to justify the value of the rescaling factor.
 - The consultation document does not clarify whether the rescaling factors will be set *ex-ante* in the final decision, or whether they will be determined later on during the yearly tariff setting process⁸.

4.1.2.3 Simplified tariff model

(25) The Agency finds the provided simplified tariff model, as required by Article 30(2)(b) of the NC TAR, useful, because it allows network users to simulate the impact of different variables (allowed revenues, aggregated capacity bookings) on the level of reference prices.

⁸ Following bilateral exchanges, MEKH clarified that the factor will be updated in the annual tariff process.

- (26) However, the Agency finds the model incomplete and unclear with regards to transmission tariffs at entry points from and exit points to storages. In particular, and in line with the conclusions on the storage discounts, it is not clear whether different assumptions on capacity bookings at storage points affect reference prices and, if this is the case, the model does not allow to change these assumptions.
- (27) Also, the Agency notes that, in the simplified tariff model, the rescaling factor for the Gas Year 2020-21 for entry points has been set equal to 1.3, while in Annex 2 is reported as 1.2. At the request of the Agency, MEKH clarified that the different figures provided show the potential impact on tariffs after the adjustment of the rescaling factor. However, in order to provide transparency on the tariff model, the Agency recommends the NRA to use a consistent set of data and assumptions that are followed through by the tariff model as well as the information provided pursuant Article 26(1) of TAR NC.

4.1.2.4 Tariffs applicable for the prevailing tariff period and for the remainder of the tariff periods for which the RPM is proposed

- (28) Article 30(2)(a) of TAR NC requires the NRA to publish an explanation of:
 - the difference in the level of transmission tariffs for the same type of transmission service applicable for the prevailing tariff period and for the tariff period for which the information is published;
 - the estimated difference in the level of transmission tariffs for the same type of transmission service applicable for the tariff period for which the information is published and for each tariff period within the remainder of the regulatory period.
- (29) The Agency finds that the information was correctly provided by MEKH.

4.1.2.5 Conclusion on transparency

- (30) The Agency finds the information provided in the consultation document not transparent and insufficient to allow users to reproduce and accurately forecast reference prices. This results, in particular, from the way in which the adjustments to the RPM are applied, and from the resulting under-recovery which is not reported by MEKH.
- (31) The Agency considers that more clarity should be given, in particular on post-discount storage tariffs and their effects on related calculations (namely, the CAA and the ratios⁹ listed under Article 30(1)(b)(v)). Also, the Agency considers that more transparency should be provided on the way in which the rescaling factors are set, also in order to ensure its predictability. Such considerations also apply to the simplified tariff model.

4.1.3 Cost-reflectivity

(32) **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.

⁹ Capacity-commodity split, entry-exit split, and intra-system/cross-system split.

4.1.3.1 Choice of RPM and comparison with the CWD methodology

- (33) MEKH proposes a postage stamp methodology, based on a 40-60 entry-exit split. In addition, the NRA proposes to apply a 90% discount at entry points from storage facilities and a 100% discount at exit points to storage facilities. Reference prices are rescaled, although this adjustment is not applied to recover the missing revenues resulting from the application of storage discounts.
- (34) Concerning the assessment of the proposed RPM in accordance with Article 7 of TAR NC, as a requirement per Article 26(1)(a)(v), the Agency notes that MEKH does not provide a sufficient justification of the proposed RPM against the requirements pursuant to Article 7 of the NC TAR¹⁰.
- (35) The Agency notes that the choice of a postage stamp methodology is generally best suited in meshed systems, where distance is less relevant as a cost driver, or where its effects tend to be mitigated. The Agency considers that MEKH fails to provide a proper assessment of the costreflectivity of the proposed RPM, the only reference in the document being a sentence supporting the opposite, i.e. that 'the tariff structure according to the methodology does not reflect the complexity of the system'¹¹.
- (36) Following bilateral exchanges, MEKH explained to the Agency that the methodology is costreflective. To support its point, MEKH argued that the revenues are not allocated and calculated individually for entry and exit points. As a result, tariffs are not calculated for individual points, but instead for all points of the network based on the proposed RPM. According to MEKH, this approach guarantees that tariffs reflect the costs of the TSO at an aggregate level (at the level of the entryexit zone),
- (37) The Agency believes that the notion of cost-reflectivity adopted by MEKH only applies in as much as the RPM is based on the allowed revenue of the TSO. At the same time, the Agency remarks that there are additional choices, related to the design of the RPM, that can further impact the level of cost-reflectivity of reference prices at individual points. The choice of cost drives is an example of this. A discussion of these elements is not included as part of the consultation.
- (38) In the view of the Agency, the appropriateness of a postage-stamp methodology and its degree of cost-reflectivity in a given system can be evaluated by comparing its outcomes with those of a distance-based methodology, such as the CWD methodology. In this respect, the results of the CWD methodology provided by MEKH pursuant to Article 26(1)(a)(vi) show a significant variability between tariffs at entry points as well as between tariffs at exit points, signaling the role of distance, as cost driver in the Hungarian system¹².

¹⁰ Such description is provided in Annex 2, under the information provided as per Article 26(1)(a)(vi).

¹¹ See Annex 2 to the consultation document. The information is provided in the section relevant to Article 26(1)(a)(vi), in row 388, columns E-F.

¹² At the same time, the Agency remarks that the proposed postage stamp methodology and the CWD methodology lead to different levels of revenue recovery as a result of the application of rescaling and storage to the proposed postage stamp methodology. The Agency notes that this limits the value to the comparison performed to MEKH.

- (39) The proposed postage stamp methodology results in reference prices of 969.42 HUF/kWh/h/y for entries and 623.92 HUF/kWh/h/y for exits. In comparison, the CWD methodology provides the following results:
 - Tariffs at entry IPs range from zero (Drávaszerdahely point from Croatia), or very low tariff levels (Csanádpalota from Romania, equal to 227,67 HUF/kWh/h/y), to values as high as 1.500,72 HUF/kWh/h/y (Mosonmagyaróvár from Austria);
 - Tariffs at exit IPs range from zero (Balassagyarmat point to Slovakia), or very low tariff levels (Beregdaróc to Ukraine, equal to 22.95 HUF/kWh/h/y) to values as high as 1,016.72 HUF/kWh/h/y (Drávaszerdahely point to Croatia).
- (40) The Agency considers that the evidence from the comparison with the CWD methodology indicates a lack of cost-reflectivity of the proposed RPM.

4.1.3.2 Application of discounts

- (41) MEKH proposes to apply a 90% discount at entry points from storage facilities and a 100% discount at exit points to storage facilities.
- (42) The Agency notes that, although the consultation document mentions the application of discounts to storage, the information provided in Annex 2, as well as the simplified tariff model in Annex 3, do not take such discounts into account. In particular, with the only exception of the information provided according to Article 26(1)(a)(iii) of the NC TAR (indicative prices subject to the consultation), tariffs to and from storage are not reported, as they are assumed to be equal to other entry and exit points. This also applies to cases where storage transmission tariffs are used as input for other calculation as described in paragraph (23) above.
- (43) Finally, the CAA is also significantly affected by the approach taken by MEKH. Although the NRA publishes the CAA, which results in 8.73%, the calculation of the CAA taking into account the storage discounts would result in 17% as calculated by the Agency.

4.1.3.3 Impact of storage discounts on revenue recovery

- (44) Following the application of the storage discount, the expected revenues from capacity-based transmission tariffs are not rescaled to meet the target revenues. This results in the proposed tariffs leading to an under-recovery of revenues.
- (45) According to the information provided as per Article 30(1)(b)(i) of the NC TAR, the amount of revenues to be recovered by capacity-based charges is HUF 56,645 million. However, by considering the tariffs resulting after the storage discount and the corresponding forecasted contracted capacities, only HUF 51,772 million are recovered¹³.
- (46) The Agency notes that, while MEKH applies a rescaling adjustment, the proposed factor is not designed to compensate for the storage discounts. Its primary goal, according to MEKH, is to avoid significant year-on-year tariff changes.

¹³ MHUF 4,873 under-recovery (cca. MEUR 15)

(47) In this respect, the Agency notes that:

- First, the consultation document is not transparent on the amount of under-recovery generated by the storage discounts, and on the way in which it would be reconciled. In particular, according to the information provided pursuant to Article 30(2) of the NC TAR for the Gas Year 2020-21, MEKH predicts adjustments due to the reconciliation of the regulatory account to be equal to zero. On the basis of the tariff levels provided by MEKH and the application of discounts to storage, some degree of under-recovery will occur.
- Second, the reconciliation of the under-recovered revenues using the regulatory account lead to intertemporal cross-subsidies between network users that use the network from one year to another.

4.1.3.4 Assessment of the proposed application of storage discounts

- (48) During bilateral exchanges, MEKH justified the choice of not including the discounted tariffs as input to the CAA, the CWD methodology and the various ratios required as part of Article 30(1)(b)(v) of the NC TAR. In the view of MEKH, the tariffs that should be published as part of the consultation on Article 26(1) of the NC TAR are those directly derived from the proposed RPM. Reference prices that have been adjusted following the instruments provided by the NC TAR in Article 6(4), such as discounts to storage, fall therefore outside the scope of the RPM.
- (49) The Agency however notes that Article 26(1)(a)(iii) of TAR NC requires the final consultation include the indicative reference prices subject to consultation, and that Article 3(1) of the NC TAR defines "reference price" as "the price for a capacity product for firm capacity with a duration of one year, which is applicable at entry and exit points and which is used to set capacity-based transmission tariffs". It follows that "transmission tariffs" shall be interpreted as post-adjustments, and consequently that "transmission services revenue" shall be interpreted as recovered by postadjustments transmission tariffs. Following these argument, the Agency points out that the information provided according to Article 26(1) of TAR NC, as well as the simplified tariff model referred to in Article 30(2)(b) of the NC TAR, shall take storage discounts into account.
- (50) The Agency therefore considers the approach adopted by MEKH as not compliant with the NC TAR. One of the principles laid out in the NC TAR is that capacity-based tariffs have to be set at a level consistent with the amount of capacity-based revenue to be recovered. Such principle can be found in several provisions of the NC TAR, in particular in the definition of transmission services revenue as per Article 3(6) (*'the part of the allowed or target revenue which is recovered by transmission tariffs*'), as well as among the provisions related to revenue reconciliation which state that:
 - Article 17(1)(a) of the NC TAR: 'The under- or over-recovery shall be minimised having due regard to necessary investments'.
 - Article 17(1)(b) of the NC TAR: 'The level of transmission tariffs shall ensure that the transmission services revenue is recovered by the transmission system operator in a timely manner'

(51) The Agency communicated its view to MEKH prior to the release of this analysis. In response, MEKH informed the Agency that it is now considering revising the method applied for handling storage discounts.

4.1.3.1 Application of rescaling

- (52) Independently to the application of storage discounts, MEKH proposes to apply a rescaling adjustment of reference prices. MEKH proposes to make use of a multiplying rescaling factor at entry and exit points, ranging from -1.3 to +1.3. According to MEKH, this adjustment is used with the aim of smoothening tariff changes in the upcoming periods, to avoid significant year-on-year changes, and to compensate for the uncertainties in the forecast of capacities. The adjustment is not applied with the aim of allocating the missing revenues resulting from the application of storage discounts. The proposal by MEKH is based on the following scheme:
 - for the Gas Year 2019-20, MEKH proposes a +1.3 rescaling factor for entry points and a 1.0 rescaling factor for exit points;
 - for the Gas Year 2020-21, MKEH assumes that the uncertainties of capacity-bookings will decrease, but will not cease to exist, therefore the rescaling factor for entry point capacities decreases (+1.2), and for exit point capacities will remain the same¹⁴.
- (53) The Agency notes that, within the consultation document, it is not clear whether the factor will be set ex-ante in the final decision, or whether it will be determined later on during the yearly tariff setting process. Following bilateral exchanges, MEKH clarified that the factor will be updated in the annual tariff process.
- (54) While acknowledging the importance of tariff stability, the Agency's view is that the presence of a range of possible values for the rescaling factor raises transparency concerns, with special regard to the impossibility for network users accurately to forecast reference prices in future years. This is particularly relevant as only qualitative, rather than quantitative, criteria are proposed to justify the rescaling factor value.
- (55) Also, the Agency notes that by using different rescaling factors, the share of revenues attributed to entry points increases in relation to exit points, changing the resulting entry-exit split.
- (56) Finally, the Agency considers that the second reason put forward by MEKH to justify rescaling (i.e. in order to compensate for the uncertainties in the forecast of capacities) should be addressed by other means (i.e. more accurate capacity forecasts, timely revenue reconciliation) and shall not lead to any significant over-recovery for the TSO.
- (57) In conclusion, the Agency considers that the primary use of rescaling is to ensure the recovery of the allowed revenue. Any deviation in this respect should be transparently explained and motived by the NRA in its final decision. In particular, the Agency recommends that the NRA provide a more detailed explanation on the potential relation between the rescaling factor and the entry-exit split.

¹⁴ The Agency notes that, under the information provided pursuant Article 26(1)(b), the value of the rescaling capacity factor for exit points for year 2019 is wrongly reported as 1.3 instead of 1.0.

Also, the Agency recommends the NRA to avoid systematic under- or over-recoveries, and to compensate for the risk of uncertain capacity bookings by other means.

4.1.3.2 Entry-exit split

- (58) MEKH proposes a 40/60 entry-exit split, used as an input to the methodology, which compares to the current 50/50 split. MEKH provides no justification regarding the choice of the split, nor for the reasons for a change from the split currently applied.
- (59) While the NC TAR does not prescribe a 50/50 entry-exit split, the Agency recommends the NRA to provide, in its final decision, an explanation of the reasons underlying the choice of a different split.
- (60) Also, the Agency notes that no reference is made in the consultation document to the entry-exit split post-adjustments, i.e. 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. In the proposed RPM, such adjustments consist of the storage discount and rescaling.
- (61) The Agency finds that, taking into account these adjustments, the resulting split is 46/54. The Agency recommends the NRA to provide, in its final decision, transparency also regarding the resulting entry-exit split.

4.1.3.3 Conclusion

- (62) The assessment completed by the Agency is based on the information provided in the consultation document, which in several respects is not compliant with the requirements laid out under Article 26(1) of the NC TAR.
 - The proposed cost driver (capacity in the case of the postage stamp methodology) is not properly assessed against the complexity of the network and against the requirements in Article 7 of the NC TAR.
 - The application of storage discounts is not followed by the rescaling of tariffs. This is not compliant with the NC TAR as it leads to an under-recovery of the allowed revenue.
 - MEKH proposes to rescale tariffs to maintain the current tariff levels. The application of rescaling for this purpose is not defined in the NC TAR and MEKH does not provide a justification supporting the proposed approach.
 - The CAA is not calculated taking into account the discounts to storage. The Agency has performed such calculation arriving at a result of 17%. This outcome is not referred to, nor justified, in the consultation document as required by the NC TAR.
- (63) Based on this analysis, the Agency concludes that the proposed RPM is not compliant with the requirement of cost-reflectivity.

4.1.4 Cross-subsidisation

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

4.1.4.1 Discrimination

(65) The Agency has not identified discrimination resulting from the correct application of the NC TAR, nor from practices not allowed by the NC TAR. For this analysis, the Agency defines 'discrimination' as 'charging different prices to network users for the same service'. The allocation of all transmission costs via a single RPM to all entry-exit points minimises the possibility of forms of discrimination not allowed by the NC TAR.

4.1.4.2 Cross-subsidisation

(66) MEKH considers that the application of a single tariff at all entry and at all exit points prevents crosssubsidisation, both between intra-system and cross-system network users, and between different network users within Hungary. However, the Agency considers that the application of a postage stamp does not prevent, as such, cross-subsidies, and that further assessment should be conducted, including by examining the comparison with the CWD methodology and the CAA.

4.1.4.3 Cross-subsidisation between cross-system and intra-system network users

- (67) One instrument to evaluate possible cross-subsidisation between intra-system and cross-system uses is the CAA. The result for the CAA as published by MEKH is 8.73%, so the NRA provided no justification. However, as already pointed out, the calculation does not take storage discounts into consideration. When taking this adjustment into account, the CAA is 17% as a result of cross-system users being allocated higher revenues per unit of capacity compared to intra-system users. Such an outcome is indicative of a significant degree of cross-subsidies from cross-system users to intra-system users, and also suggests that the storage discounts play a relevant role in the result of the CAA (the other main factor being the rescaling factor applied to entry points only).
- (68) The Agency concludes that, for capacity tariffs, there is significant cross-subsidisation between cross-system and intra-system network users, mostly arising from the storage discounts and the way in which they is handled. MEKH does not provide a justification of this effect as required by Article 5(6) of the NC TAR, following the CAA result of 17% (as calculated by the Agency).

4.1.4.4 Cross-subsidisation between different network users within Hungary

- (69) Concerning cross-subsidisation between different network users within Hungary, the Agency's view is that the extent of cross-subsidies depends on how the chosen cost drivers and the applied adjustments (in this case, the forecasted contracted capacity only) relate to the characteristics of the network¹⁵.
- (70) The Agency cannot assess this effect with the information provided in the consultation document¹⁶. For such analysis, the comparison between the proposed postage stamp methodology and the CWD methodology is relevant. In particular, it is relevant to assess the tariffs for domestic points resulting from the CWD methodology and to compare them with the standard tariff resulting from

¹⁵ For example, in a system where costs are mainly driven by distance, a postage stamp methodology would result in some level of cross-subsidisation.

¹⁶ Weighting tariffs at domestic exit points resulting from the CWD methodology requires the capacities associated to these points. This information is not provided as part of the consultation.

the proposed postage stamp methodology set to domestic exits. The Agency recommends MEKH to take into account such comparison when assessing the compliance of the proposed RPM with the requirement of preventing undue cross-subsidisation.

4.1.5 Volume risk

- (71) **Article 7(d)** of the NC TAR requires that the RPM ensure that significant volume risk related particularly to transports across an entry-exit system is not assigned to final customers within that entry-exit system.
- (72) MEKH states that the proposed RPM does not assign significant risk to the users of the entry-exit system because it handles volume risk for all entry-exit points combined, meaning that the reconciliation of revenues is carried out at the level of the RPM without differentiating between domestic and transit users.
- (73) The Agency remarks that Recital 6 of the NC TAR states that the RPM should include safeguards to shelter domestic captive customers in entry-exit systems that transport significantly more gas into other systems than for consumption into their own entry-exit system. At the same time, Article 7(d) of the NC TAR requires that 'significant volume risk related to transports across an entry-exit system is not assigned to final customers'. In the case of Hungary, the share of flows crossing the system is around 35% of the total flows. This is not significantly above the share of flows transported for domestic consumption (as referred to in Recital 6 of the NC TAR), but it could still lead to a significant volume risk being transferred to domestic customers (as referred to in Article 7(d) of the NC TAR).
- (74) Following this reasoning, the Agency recommends that MEKH, in preparing the motivated decision, complete an assessment of the evolution and the forecast of capacity bookings. In the event of a relevant decrease in cross-system bookings, Article 7 of the NC TAR requires that a significant volume risk is not assigned to final customers within the entry-exit system.
- (75) In addition, the Agency remarks that the mechanism proposed by MEKH to shelter domestic customers, as described in paragraph (72) above, is not a guarantee to avoid transferring the volume risk associated to the cross-system use of the network to domestic customers. Given that the reconciliation of revenues is carried out at the level of the RPM without differentiating between domestic and transit users, a significant underutilization of the cross-system infrastructure could lead to these costs being reconciled to all points and therefore being passed through to domestic customers.

4.1.6 Cross-border trade

(76) **Article 7(e)** of the NC TAR requires that the RPM ensure that the resulting reference prices do not distort cross-border trade. MEKH considers that, as the RPM applies the same charges at cross-border and domestic points, the chosen RPM does not affect cross-border trade.

- (77) The Agency sees the merits of applying the same reference price at all entry points for the purpose of avoiding distortion of cross-border trade. However, in the Agency's view, the mere application of a postage stamp methodology does not avoid distortion of cross-border trade.
- (78) The Agency interprets that tariffs do not distort cross-border trade when they are set at costreflective levels, and where there are no cross-subsidies between intra-system and cross-system users. As already indicated, the Agency has concluded that the proposed RPM is characterized by a lack of cost-reflectivity. On cross-subsidies, the Agency already concluded that there is significant cross-subsidisation between cross-system and intra-system network users. Hence, in the Agency's view, the adoption of the proposed RPM leads to a risk of distortion of cross-border trade.

4.1.7 Conclusion

- (79) Following the analysis of the consultation document, the Agency concludes that the assessment of the RPM against the requirements in Article 7 of the NC TAR provided in the consultation document is incomplete and insufficient. In addition to the non-fulfillment of this requirement, the RPM is not compliant with several other requirements of the NC TAR, in particular:
 - The consultation document proposes the application of discounts to points from and to storage. These discounts are not taken into account when calculating the CAA and the various ratios listed under Article 30(1)(b)(v) of the NC TAR.
 - MEKH proposes to apply a rescaling adjustment. This, is however disjoint from the application
 of discounts to storage. As a result, the proposed tariffs lead to an under-recovery of revenues.
 This approach is not compliant with the objective of minimizing the regulatory account and of
 recovering the transmission revenue in a timely manner, as stated in Articles 17(1)(a) and (b)
 of the NC TAR.
 - The CAA, when calculated on the basis of adjusted reference prices (i.e. including rescaling and discounts to storages), results in 17%. This figure is not provided in the consultation document, and remains without the justification required by Article 5(6) of the NC TAR, as it is above the 10% threshold referred to in this Article.
 - The comparison between the proposed postage stamp methodology and the CWD methodology is not fully valid and is misleading as the two methodologies result in different levels of revenue recovery.
- (80) On the basis of the limited assessment that the information provided in the consultation document allows with respect to the requirements laid out in Article 7 of the NC TAR, the Agency concludes that the proposed RPM is not compliant with the requirements of cost-reflectivity, preventing undue cross-subsidisation and not distorting cross-border trade. At the same time, the Agency concludes that the RPM complies with the requirement of ensuring non-discrimination. On the requirement of volume risk, the Agency cannot conclude that the proposed methodology is compliant with the requirement in Article 7(d) of the NC TAR.
- (81) The Agency notes that the application of adjustments as proposed by MEKH risks overriding the fundamental role of the RPM. This is so because the proposed adjustments are disjoint from each other and because they are not applied to preserve the recovery of the allowed revenue.

(82) The Agency recommends MEKH to improve its assessment for its motivated decision, pursuant to Article 41(16) of Directive 2009/73/EC and based on this Report. MEKH should conduct a proper assessment and a detailed justification of the proposed RPM against the criteria set out in Article 7 of the NC TAR, in particular against the cost-reflectivity principle, which also affects the compliance of the RPM with regards to the avoidance of cross-subsidies and the non-distortion of cross-border trade. The application of adjustments should comply with the NC TAR as outlined in this analysis.

4.2 Are the criteria for setting commodity-based transmission tariffs as set out in Article 4(3) met?

- (83) Article 27(2)(b)(2) of the NC TAR requires the Agency to analyse whether the criteria for setting commodity-based transmission tariffs as set out in Article 4(3) are met.
- (84) Commodity-based transmission tariffs can be used as an exception. The NC TAR allows for two types of commodity-based transmission tariffs: a flow-based charge and a complementary revenue charge. In the consultation document, MEKH proposes to use a flow-based charge, levied for the purpose of covering costs driven by the quantity of gas flows, e.g. pressure regulation, own gas use, and gas shrinkage. The flow-based charge is expected to constitute around 15% of the transmission services revenue. The Agency considers that this share is consistent with the requirements of the NC TAR (see Table 3 below summarising the criteria for setting the flow-based charge).
- (85) Also, the flow-based charge shall be 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. MEKH proposes to charge the levy at all exit points (including storage and cross-border points), and use the quantity of gas flows for the latest available 12 months as a driver.
- (86) The expected charge for the Gas Year 2019-20 is 42.19 HUF/MWh.
- (87) The commodity cost allocation comparison index calculated by MEKH is 0%. This values does not exceed 10% and therefore does not require further justification.

Criteria	Y/N?
levied for the purpose of covering the costs mainly driven by the quantity of the gas flow	Yes
calculated on the basis of forecasted or historical flows, or both	Yes
set in such a way that it is the same at all entry points and the same at all exit points Yes	Yes
expressed in monetary terms or in kind	Yes

Table 3 Criteria for setting the flow-based charge, as laid out in Article 4(3a)

4.3 Are the criteria for setting non-transmission tariffs as set out in Article 4(4) met?

- (88) Article 27(2)(b)(3) of the NC TAR requires the Agency to analyse whether the criteria for setting non-transmission tariffs as set out in Article 4(4) of the NC TAR are met. The consultation document includes the following services to be recovered via non-transmission tariffs:
 - odourisation;
 - title transfer, defined as a service 'during which the transmission system operator transcribes the right of disposition over a given amount of natural gas at a physical or virtual point defined by the system user from the system user to its named partner';
 - data services exceeding basic data provided as part of the core services, mainly consisting in more frequent data updates than legally prescribed;
 - fees for balancing services provided for system users not being members of the Trading Platform;
 - connection to the transmission system.
- (89) The odourisation service amounts to 1.3% of the total allowed revenue. For other non-transmission services, MEKH does not forecast the allowed revenue for the TSO as they are rendered upon users' request. Revenues from non-transmission services are kept by the TSO, and they are not reconciled.
- (90) The consultation document does not include an assessment against the criteria in Article 4(1) of the NC TAR. Despite the absence of such an assessment, the Agency considers that these services should indeed qualify as non-transmission services because the costs for these services are not driven by capacity and distance.
- (91) MEKH describes the principles followed when setting the non-transmission tariffs. However, the Agency notes that most descriptions do not allow network users to replicate the calculation of non-transmission tariffs, and to forecast their possible evolution.
- (92) Based on the available information, and the principles described by MEKH, the Agency considers that the proposed non-transmission services satisfy the criteria of Article 4(4)(a) of the NC TAR since they are charged in a cost-reflective, non-discriminatory, objective and transparent way. The Agency also considers that the proposed non-transmission services satisfy the criteria of Article 4(4)(b) of the NC TAR since they are charged to the beneficiaries of the services and therefore they do not create subsidies between network users within or outside Hungary.
- (93) The Agency concludes that the criteria for setting non-transmission tariffs as set out in Article 4(4) of the NC TAR are met. The Agency nonetheless recommends the NRA to provide, in its final decision, a more detailed description of the non-transmission tariff formulae, including the underlying assumptions, in order to allow network users to forecast the possible evolution of non-transmission tariffs.

Annex 1: Legal framework

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.

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:

(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.

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;

(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.

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 non discriminatory 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.

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

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

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 non-transmission 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 crosssubsidisation 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
ACER	Agency for the Cooperation of Energy Regulators
CAA	Cost Allocation Assessment
CWD	Capacity Weighted Distance
EC	European Commission
EU	European Union
FGSZ	FGSZ Földgázszállító Zártkörűen Működő Részvénytársaság
ITC	Inter-transmission system operator compensation mechanism
MEKH	Magyar Energetikai És Közmű-Szabályozási Hivatal (NRA)
MGT	Magyar Gáz Tranzit Zártkörűen Működő Részvénytársaság
NC TAR	Network code on harmonised transmission tariff structures for gas
NRA	National Regulatory Authority
RPM	Reference Price Methodology
TSO	Transmission System Operator