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Agency Report

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

NRA: Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen
TSOs: all TSOs in the market zone
Trading Hub Europe

17 July 2020
ACER ANALYSIS OF THE CONSULTATION DOCUMENT ON THE GAS TRANSMISSION TARIFF STRUCTURE FOR GERMANY

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1. ACER conclusion

(1) The Agency issues the present Report to analyse the second tariff consultation on the reference price methodology (‘RPM’) carried out by the Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen (‘BNetzA’). The purpose of this Report is to assess the compliance of the proposed RPM with the requirements laid out in Article 7 of the Network Code on Harmonised Transmission Tariff Structures for Gas (‘NC TAR’) of transparency, cost reflectivity, prevention of undue cross-subsidisation, non-discrimination, volume risk and non-distortion of cross-border trade. In addition, the Report assesses the compliance of non-transmission charges with Article 4(4) of the NC TAR. These objectives aim at contributing to market integration, enhancing security of supply and promoting the interconnection between gas networks.

(2) BNetzA carried out a first tariff consultation on 18 December 2018. The Agency published its corresponding Report on the Gas Transmission Tariff Structure for Germany on 15 February 2019. BNetzA is carrying out this second consultation ahead of the merger of the two market zones, which will result in the Trading Hub Europe that will be in place as of 1 October 2021.

(3) In this second consultation, BNetzA proposes to apply the same RPM, a postage stamp methodology, jointly for all transmission system operators (‘TSOs’) of the market zone Trading Hub Europe. The NRA does not apply an ex-ante entry-exit split, and the resulting share of revenues that the RPM allocates to entries and exits is 36.9% - 63.1%. BNetzA proposes to apply a 75% discount at entry points from and exit points to storage facilities, which also applies to storage facilities connected to neighbouring entry-exit systems, unless the specific capacity booking allows for a transfer of gas to the neighbouring entry-exit system. In addition a benchmarking adjustment is applied at 2 points of the network. As a result of the application of the RPM and post-adjustments, a single tariff is proposed for all entry and exit points. Four non-transmission tariffs are proposed and no commodity-based transmission tariffs. The consultation proposes discounts to conditional products, which are widely used by the German TSOs. BNetzA has additionally carried out a consultation for the inter-transmission system operator compensation (‘ITC’) mechanism. Finally, BNetzA proposes to set tariffs for entries from biogas, hydrogen produced by electrolysis, and synthetic methane produced via power-to-gas (‘PTG’) to zero.

(4) The NC TAR foresees a cost allocation assessment (‘CAA’) and the comparison of the chosen RPM with the capacity-weighted distance (‘CWD’) methodology. For the calculation of the CAA, BNetzA proposes several scenarios to assess the impact of storage on the cross-system and intra-system use of the network. The CAA index for the different scenarios are within the 10% threshold laid out.

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2 Storage facilities allowing crossing two different entry-exit systems are located at the borders with Austria and the Netherlands.

3 With the exception of storage points, points subject to benchmarking and entries from biogas, hydrogen produced by water electrolysis, and synthetic methane.

4 Gas manufactured using hydrogen produced by water electrolysis with subsequent methanation.

5 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.

6 There are two situations applicable for the German network where storage can be used for cross-system flows: first, in the case of storages connected to neighbouring Member States; secondly, in the case of cross-system users that contract storage when
in Article 5(6) of the NC TAR, except for an outlier. When calculated following the NC TAR rules as laid out in Article 5, the result of the CAA is 2.46%. BNetzA also provides the CAA calculation for the CWD methodology which results in 11.40%. The Agency notes that these results cannot be used to validate cost-reflectivity of the proposed postage stamp methodology as they do not serve to assess the appropriateness of the cost drivers of the RPM for the German network.

(5) The Agency remarks that the consultation proposes a postage stamp methodology, the appropriateness of which the Agency cannot assess. The stakeholder input provided as part of the consultation process points out at the existence of smaller pipelines that are part of the transmission network which could have a downstream purpose, based on the Directive 2009/73/EC. These networks are referred to in this report as ‘regional networks’. The allocation of these assets together with the rest of the transmission assets, as proposed by BNetzA, could distort the overall cost-reflectivity of tariffs, should these regional networks be mainly used for intra-system purposes and have very different unit costs to the rest of the TSOs’ transmission assets. BNetzA does not provide an assessment of this matter in the consultation document nor a correlation between the costs of the network and the cross-system and intra-system use of the system. Such assessments should allow concluding whether the cross-system and the intra-system use of the network have different underlying costs that should be reflected in the tariffs that are charged. At the same time, the Agency notes that it received on 7 July 2020, close to the publication deadline of this Report, additional information from BNetzA on its analysis of the correlation between the costs and the use of the network. This information is in line with the recommendations made by the Agency in the Report on the previous tariff consultation. This analysis was not shared with stakeholders as part of the consultation and for time reasons could not be fully assessed by the Agency.

(6) The Agency concludes, after having completed the analysis of the consultation document pursuant to Article 27(2) of the NC TAR, that:

- The consultation document contains the required information listed in Article 26(1).
- The Agency cannot conclude its analysis on the requirements of cost reflectivity, prevention of undue cross-subsidisation and non-distortion of cross-border trade listed under Article 7 of the NC TAR. While the consultation document provides a clear description of the proposed RPM, it does not provide a sufficient assessment supporting the choice not to reflect the differences in the unit costs of the network in the choice of the RPM. In the absence of such analysis, the Agency cannot conclude whether the proposed RPM is appropriate for the German network. At the same time, the Agency notes that the RPM is compliant with the requirements on transparency, non-discrimination and volume risk.
- The criteria for setting the commodity charge are not applicable.
- The Agency concludes that most of the criteria for setting non-transmission charges are met.

(7) The Agency recommends that:

- First, BNetzA should assess whether the Agency’s understanding that it is likely that regional networks are in place in the German system is correct. One way to do so would be to look into

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a correlation between the differences in unit costs of the network and the cross-system and intra-system use of the system. The evidence provided by BNetzA to the Agency on 7 July can support this analysis and can be made part of the motivated decision following the consultation. The Agency points out that the identification of regional networks has been done or is underway in Austria, France, Italy, Lithuania and Spain. Once these regional networks are identified, they should be properly delineated.

- Second, once the regional networks are identified and delineated, BNetzA should allocate the costs of regional networks to end-users of the German network. One way to meet this objective could be to move regional networks into distribution. As a reference for the duration to complete such a task, the Agency points at the case of Lithuania, where a two year plan was designed to move regional networks to distribution.\(^8\)

8 See https://www.regula.lt/dujos/SiteAssets/Action plan_EN.pdf


10 See §62-§76 of the consultation document.
state aid measures, if appropriate. This recommendation has been provided in the case of another tariff consultation proposing zero reference prices to biogas inputs to the network (Belgium).

(12) The consultation was provided in English, in a clear and well-reasoned document.
2. Introduction


(14) Article 27 of the NC TAR requires the Agency to analyse the consultation documents on the reference price methodologies for all entry-exit systems\(^\text{11}\). The Agency notes that BNetzA proposes to apply the same RPM jointly for all TSOs within the market zone Trading Hub Europe, which will be in place as of 1 October 2021. This Report presents the analysis of the Agency for the consultation document for Germany. The Agency already published a first Report on 15 February 2019 analysing the final consultation carried out by BNetzA\(^\text{12}\).

(15) The Agency notes that the consultation on the ITC mechanism, as referred to in Article 10(5) of the NC TAR, is 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.

(16) On 16 March 2020, BNetzA, forwarded the consultation documents to the Agency. The consultation was launched on the same day and remained open until 18 May 2020. On 9 June 2020, the consultation responses were published and on 18 June 2020 the summary was also published. The Agency has taken these into consideration for this analysis and appreciates the efforts shown by stakeholders when providing an English translation of their responses. Within five months following the end of the final consultation, and pursuant to Article 27(4) of the NC TAR, BNetzA shall take and publish a motivated decision on all the items set out in Article 26(1) of the NC TAR.

(17) A number of bilateral exchanges to collect additional information took place between BNetzA and the Agency. BNetzA provided information in a timely and clear manner following the requests of the Agency, including a correlation between the costs and the use of the network as recommended in the 2019 Agency Report on the Gas Transmission Tariff Structure for Germany.

**Reading guide**

(18) Chapter 3 assesses the justification provided by BNetzA for the proposed RPM. Chapter 4 presents the analysis on completeness, namely whether all the information referred to in Article 26(1) has been published. Chapter 5 focusses on compliance, namely whether the RPM complies with the requirements set out in Article 7 of the Code, whether the criteria for setting commodity-based transmission tariffs as set out in Article 4(3) are met, and whether the criteria for setting non-transmission tariffs as set out in Article 4(4) are met. Chapter 6 includes other comments. This document contains two annexes, respectively on the legal framework and a list of abbreviations.

\(^\text{11}\) With the exception of Article 10(2)(b), when different RPMs may be applied by the TSOs within an entry-exit zone.

3. Assessment of the proposed reference price methodology

The following section provides an analysis of the proposed RPM focusing on the justification provided by BNetzA.

3.1 Description of the proposed RPM

BNetzA is carrying out a consultation on the RPM in view of the market merger of the two market areas Gaspool and Net Connect Germany into the new market area Trading Hub Europe which will be in place as of 1 October 2021.\(^\text{13}\)

BNetzA proposes to apply a postage stamp methodology jointly for all TSOs. Article 10 of the NC TAR sets the rules for the calculation of tariffs in entry-exit systems within a Member State where more than one TSO is active. The same RPM shall be applied jointly by all TSOs in an entry-exit system. As an exception, the NRA may decide that the same RPM is applied separately by each TSO. The Agency supports the joint application, as an approach, while remarking that such approach should comply with the requirements laid out in Article 7 of the NC TAR, including the requirement on cost-reflectivity.

The input to the RPM are the target revenues and the revenue of the TSOs and the non-adjusted forecasted contracted capacity.\(^\text{15}\) Capacities associated to entries from biogas, hydrogen produced by electrolysis, and synthetic methane produced via PtG are excluded.

The NRA does not apply an ex-ante entry-exit split. The allocation of revenues to entries and exits can be calculated based on the contracted capacities. This results in an entry-exit split of 36.9% - 63.1% that is subject to changes based on the booked capacities per tariff year.

BNetzA proposes to apply the following adjustments:

- Benchmarking at two specific points.\(^\text{16}\)
- Discounts to entry points from and exit point to storage facilities of 75% insofar as the storage facility is not connected to more than one transmission or distribution network and it is not used as an alternative to an IP.
- Rescaling to allocate the missing revenue resulting from the application of benchmarking, discounts to storage and conditional products.

\(^\text{13}\) The 2017 amendment to the Gas Network Access Ordinance, GasNZV (link) requires the gas TSOs to merge the current two market areas – NetConnect Germany (NCG) and GASPOOL – to form one single German market area (see section 21 GasNZV). The merger is planned to take place on 1 October 2021.

\(^\text{14}\) The proposed approach implies a change from the methodology applied prior to 2019, which was based on a separate application of the RPM to each TSO.

\(^\text{15}\) ‘Non-adjusted contracted capacity’ means that the capacity used as an input is not weighted to its economic value. For example, 100 kWh/h of storage capacity offered at a 75% discount, results in a non-adjusted value of 100 kWh and an adjusted value of 25 kWh/h. As a result of using non-adjusted capacity as an input to the RPM, reference prices do not lead to the full recovery of revenues. For this reason, BNetzA complements the use of non-adjusted contracted capacity with the rescaling of reference prices at all points. After the application of this adjustment, reference prices lead to the full recovery of revenues.

\(^\text{16}\) BNetzA proposes to apply a benchmarking adjustment at:
- The IP connecting the end-user Wacker Chemie AG to Bayernets GmbH.
- The entry and exit points at the Haidach storage facility, connecting to Bayernets GmbH
BNetzA additionally proposes to apply discounts for conditional firm capacity. The discounted tariffs should not be lower than the capacity tariffs for interruptible capacity products with the lowest discount at the same point as the conditional product.

As a result of the application of the RPM and post-adjustments, a single tariff is proposed for all entry and exit points, with the exception of points to and from storage, points where benchmarking is applied, and entry points from biogas, hydrogen produced by electrolysis, and synthetic methane produced via power-to-gas, which are set to zero.

3.2 Summary of the Agency’s analysis of the RPM consulted on 18 October 2018

In its earlier report on the consultation launched by BNetzA on 17 October 2018, the Agency could not conclude its analysis on the requirements of cost reflectivity, prevention of undue cross-subsidisation and non-distortion of cross-border trade listed under Article 7 of the NC TAR. The information provided by BNetzA in that consultation document was not sufficient to assess the appropriateness of the proposed postage stamp for the German network. This was particularly the case because of the differences in unit costs related to the infrastructure in the network. The proposed postage stamp methodology led to uniform tariffs that did not reflect such differences. In its motivated decision following the public consultation and the Agency’s report, BNetzA set the same postage stamp methodology that was proposed in the consultation. A postage stamp methodology is now proposed for consultation.

In the 2019 Agency Report on the Gas Transmission Tariff Structure for Germany, the Agency recommended BNetzA to include in the motivated decision the following analyses:

- An assessment of the complexity of the network, including the unit cost differences related to infrastructure associated with the cross-system and intra-system use of the network;
- An assessment on the extent to which the network can be considered as meshed, in view of its internal physical constraints reflected in the extensive use of conditional products;
- An explanation of the differences between the previous tariffs (2018) and tariffs resulting from the proposed RPM (2020) that would allow to assess the importance of these changes.

In addition, the Agency raised its concern about the existence of regional networks as part of the TSO’s transmission assets. The allocation of both, regional and transmission networks, using the same RPM, can lead to a cross-subsidisation effect between the cross-system and the intra-system use of the network.

The Agency recommended BNetzA to assess the RPM taking into account its recommendations. Should the proposed postage stamp methodology prove not to be cost-reflective, the Agency recommended BNetzA to consider adopting a more appropriate RPM that better reflected the underlying costs of the network.

3.3 BNetzA’s justification of the proposed postage stamp RPM

In its consultation document, BNetzA provides several arguments to support the proposed postage stamp methodology, which relate mainly to the cost-reflectivity, simplicity and transparency of the methodology.
Regarding cost-reflectivity, BNetzA justifies the application of a postage stamp methodology based on the impossibility to identify the costs associated to the cross-system and intra-system use of the network. ‘Allocating specific pipelines to specific bookings is not possible due to the complexity and meshed structure of the Germany-wide market area’17. In view of such impossibility, BNetzA proposes to apply a flat tariff to all points of the system.

BNetzA argues that this results from several factors related to the complexity and the meshedness of the German network, in particular:
- The close coordination between 16 TSOs based on inter-TSO services;
- The decoupling of services resulting from the implementation of the market merger.

In addition, BNetzA compares the proposed postage stamp methodology with the CWD methodology and with a number of other methodologies, including a matrix methodology. In this comparison, BNetzA points out the superiority of the postage stamp methodology in terms of simplicity, tolerance to errors and predictability.

In this section, the Agency focusses on the arguments provided by BNetzA that are related to the compliance with the requirement of cost reflectivity.

### 3.3.1 Complexity of the network

In the consultation document, BNetzA provides a description of the German gas transmission network18. The German market area is a highly complex system consisting of 16 TSOs. They operate a transmission network with a length of more than 37,000 km with 270 physical entry points and 3,514 physical exit points (combining the previous NetConnect Germany and Gaspool market areas). Altogether 122 bookable entry points and 1,171 bookable or orderable exit points can be counted for the future joint market area after removal of the market area interconnection points.

BNetzA argues that the number of possible combinations of entry and exit points can also be used as a measure for the complexity of the system19. According to information from the TSOs, there were 116,281 possible combinations in the GASPOOL market area and 380,397 possible combinations in the NCG market area in 2011. The future merger of these two market areas, planned for 1 October 2021, will increase the number of possible combinations to 948,780. The large number of possible combinations in each case demonstrates that each market area already constitutes a complex system in itself. Furthermore, in future this complexity will significantly increase.

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17 See 102 of the consultation document.
18 See §57 of the consultation document.
19 See §60 of the consultation document.
3.3.2 Services between TSOs

(38) The consultation document refers to services between TSOs. BNetzA argues that the complexity of the network ‘demands a high level of cooperation between transmission system operators’. This cooperation takes place in the form of services between TSOs (referred to in this Report as ‘inter-TSO services’).

(39) BNetzA argues that the provision of services between TSOs decouples any possible correlation between the cross-system and intra-system use of the network and the associated infrastructure costs. As a result, the NRA argues that the costs associated with each of these network uses cannot be identified.

(40) BNetzA does not provide a description of these services nor a quantitative assessment of the costs involved (e.g. of the transactions between TSOs). Instead, it describes how complex were the administrative proceedings to adequately determine the amount and value of these services. This process goes as far back as 2009, without reaching a satisfactory outcome. BNetzA concludes that issuing an administrative order for a mechanism of this nature is extremely difficult and there is only a very slight possibility or, given the available data, no possibility at all of determining the actual value of the gas services provided mutually between TSOs

3.3.3 Decoupling of services resulting of the market area

(41) BNetzA explains that as a result of the zone merger the allocation of transport services and transport infrastructure, and the costs connected with those, is likely to be fundamentally impossible, specially under the conditions of the united market area. At the same time, the Agency notes that BNetzA does not provide an assessment supporting this conclusion.

3.4 Agency’s considerations on the proposed postage stamp methodology

(42) The Agency notes that the justification of the RPM provided by BNetzA does not include an assessment of how the costs of the network are correlated with its use. Such assessment should allow concluding whether the cross-system and the intra-system use of the network have different underlying costs that should be reflected in the tariffs. In the absence of such assessment, it is not possible to conclude on the compliance of the proposed postage stamp methodology with the cost-reflectivity requirement.

(43) The Agency notes that it received on 7 July 2020, close to the publication deadline of this Report, additional information from BNetzA on the correlation between the costs and the use of the network. This information is in line with the recommendations made by the Agency in the Report on the previous tariff consultation carried out by BNetzA. For time reasons, the Agency could not fully assess this information and cannot therefore take it into account in this Report.

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20 See §62 of the consultation document.
21 See §74 of the consultation document.
22 Administrative proceedings BK7-19/037 (KAP+) and BK9 19/606 (KOMBI).
23 See §82 of the consultation document.
There are at least three factors that suggest that the differences in the unit costs of the infrastructure could be correlated to the cross-system or intra-system use of the network. These factors are:

- The potential existence of regional networks (a definition of regional network is detailed in Section 3.4.2);
- The wide use of conditional capacity products;
- The differences in tariffs resulting from the joint and the separate application of the RPM.

From the evidence reviewed, in particular in a report published by DNV-GL and Commissioned by Gascade Gastransport GmbH, Grtgaz Deutschland GmbH And Gazprom Export Llc. (referred to in this analysis as ‘the DNV-GL report’), some part of the German transmission system might be classified as regional networks. These networks might lead to large differences in the overall unit costs of the infrastructure, challenging the feasibility of allocating all costs under the same RPM.

To assess these factors, the Agency refers to the study published by DNV-GL in the context of the consultation process. BNetzA did not completely fulfil the recommendations made by the Agency in the Report on the Gas Transmission Tariff Structure for Germany. A number of stakeholders which were involved in the consultation process did provide relevant information in relation to the recommendations of the Agency. The Agency therefore finds it relevant to refer to these analyses.

### 3.4.1 Description of the network.

The Agency acknowledges the complexity of the network as described by BNetzA. At the same time, the Agency notes that the consultation document does not provide sufficient information for these description to be fully used to assess the justification of the proposed postage stamp methodology.

First, the consultation document does not provide an assessment of the inter-TSO services referred to by BNetzA. For this reason, the Agency cannot assess the impact of these services nor its relevance when assessing the proposed postage stamp methodology.

Second, the consultation document does not contain an assessment supporting BNetzA’s conclusion that the merger of the two market zones leads to a decoupling of services that renders the correlation between the costs and the use of the network impossible.

### 3.4.2 Unit costs

Regarding the differences in unit costs, the DNV-GL report points out that pipelines in the German network have different cost profiles. Pipelines mainly designed for the purpose of crossing the

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24 Expert Opinion on the Economic Suitability of the Regent Regulations and the Possibility of Cost-Orientated Reference Price Methods. Commissioned by Gascade Gastransport GmbH, Grtgaz Deutschland GmbH And Gazprom Export Llc. Date: 13.12.2019. The report was commissioned in the context of the court proceedings related to the BNetzA motivated decision of 2019. The report is referred to in the current BNetzA consultation document and has been discussed with stakeholders as part of the consultation process.

German network typically have a larger diameter and a higher pressure level and allow for larger flows to be transported. This results in lower unit costs compared to smaller pipelines designed to supply end-users connected to the network\textsuperscript{26}.

The DNV-GL study published in the context of the BNetzA consultation, scores of German TSOs according to their average costs which are calculated based on a number of indicators\textsuperscript{27}. The final scoring is shown in Figure 1 below. TSOs with higher scores have lower average costs, while TSOs with lower scores have higher average costs. There are six of TSO with scoring 80 or above, and five of TSOs scoring below 30. The remaining four stand in between.

Figure 1. Aggregated scores according to five selected cost drivers applied across German TSOs. Source: DNV-GL.

The Agency notes that this methodology cannot be taken univocally to establish a correlation between the cost associated with the cross-system and the intra-system use of the network. This is for several reasons. First, the study looks at TSOs and not at points of the network (e.g. IPs and domestic points). TSOs are not necessarily correlated to the cross-system and the intra-system use of the network to the extent that points of the network are\textsuperscript{28}. Second, the study does not refer to a number of potentially relevant costs drivers such as distance, the utilisation rate of pipelines, and the booking profiles of domestic points and IPs. Taking into account such cost drivers could lead to different results regarding the unit costs differences that DNG-GL points to.

At the same time, the Agency notes that the study allows concluding that TSOs in the German network have different underlying costs, and that the pipelines in the German system have also different underlying costs. As a result, it is highly likely, although not proven, that the network points associated with the cross-system and the intra-system use of the network also have different underlying network costs. In this context, it is key for the assessment of the RPM to understand if the differences in infrastructure costs are correlated in some way to the to its use for cross-system or intra-system purposes. A postage stamp methodology results in a flat tariff, which does not reflect any underlying differences in the unit costs of the infrastructure.

\textsuperscript{26} According to the result presented in the DNV-GL report ‘the specific costs per m\textsuperscript{3} of a pipeline with a diameter of 400mm compared with the costs of a pipeline with a diameter of 1400mm are roughly four times higher’ (see page 35 of the report).

\textsuperscript{27} In its study, DNV-GL assesses the TSOs’ infrastructure according to five cost drivers to give account of the differences in costs\textsuperscript{27}. DNV-GL uses the following indicators:
- Average diameter of the pipeline network.
- The proportion of the pipelines with a diameter above 700mm.
- The exit point density (exit point/kilometre).
- The ratio of interconnector capacity to exit capacity.
- The ratio of compressor capacity to the length of pipelines with diameter above 700mm.

\textsuperscript{28} Domestic points are clearly associated with the intra-system use of the network while IP exits are clearly associated with the cross-system use of the network. In the case of IP entries or storage points, the use for cross-system or intra-system purposes is subject to interpretation.
In the next section, the Agency assesses whether the differences in unit costs can be addressed by identifying regional networks and separating these assets from the rest of the transmission infrastructure of the TSOs.

### 3.4.3 Regional networks

In the 2019 Agency Report on the Gas Transmission Tariff Structure, the Agency noted it could not assess whether German TSOs included, as part of transmission assets, infrastructure used for the purpose of supplying domestic consumers (referred to in this Report as ‘regional networks’). The proportion of such assets could be significantly different from one TSO to another. The allocation of regional networks together with transmission assets using the same RPM, can lead to a cross-subsidisation effect between intra-system and cross-system users. For this reason, the Agency pointed to the relevance of assessing the existence of regional networks as part of TSOs in the German network.

The DNV-GL study assesses a correlation between the average costs of the TSOs and the density of exit points per TSOs. Typically, regional networks have a greater exit point density as they are used to supply end-users. The results, as shown in Figure 2 below, indicate that TSOs with a higher exit point density have higher average costs.

**Figure 2: Total indicator score (accounting for the average costs of TSOs) and density of exit points per TSO.**

![Graph showing the correlation between total indicator score and exit point density](image)

The average costs, represented on the y-axis, decrease with higher scores. The TSOs with higher average costs are correlated with higher density of exit points (represented on the x-axis).

The information provided by DNV-GL and by BNetzA in the consultation document points at the very different cost profiles that TSOs in the German network have. The Agency notes that BNetzA has not assessed the existence of the regional networks as part of TSOs transmission assets in the consultation document.
The separation of transmission assets from distribution assets is laid down in the Directive 2009/73/EC. The definition of ‘transmission’ provided in the Directive 2009/73/EC and the Regulation (EC) 715/2009 distinguishes high-pressure ‘transmission’ pipelines from ‘the part of high-pressure pipelines primarily used in the context of local distribution of natural gas, with a view to its delivery to customers, but not including supply’. The latter are the so-called ‘regional networks’ which consequently fall under the definition of ‘distribution’. Distribution refers to ‘the transport of natural gas through local or regional pipeline networks with a view to its delivery to customers’.

In addition, the requirements on the NC TAR on cost-reflectivity and cross-subsidisation further support the clear separation of transmission assets and regional networks in view of the allocation of each of these asset types to the beneficiaries.

The Agency notes that the allocation of regional networks together with transmission assets can impact the cost reflectivity of tariffs. Following this consideration, and in view of the possible unit costs differences in the German network, the Agency recommends BNetzA to:

- First, assess the existence of regional networks and its impact on tariffs.
- Second, should the main beneficiaries of these assets be end-users, the NRA should allocate the costs of regional networks to end-users of the German network. One way to meet this objective could be to move regional networks into distribution.

Overall, the Agency considers that addressing the existence of regional networks, together with its impact on tariffs, is a way of improving the cost reflectivity of the RPM by limiting its application to assets with potentially more homogenous unit costs.

The Agency notes that the German definition of the transmission assets of a TSO requires that TSO networks include an IP. Such a requirement should be scrutinised, as the existence of an IP as part of a TSO network does not imply that all other infrastructure serves the purpose of transmission. When assessing the existence of regional networks, BNetzA should assess how to set a relevant limit between the infrastructure that belongs to transmission assets and to distribution networks, regardless whether high-pressure lines are involved.

At this point, given the complexity of the network and the difficulties to fit RPMs over the German network, possibly a structural solution, like the one mentioned in the paragraphs above, seem ideal to be followed through.

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29 See Article 2(3) of the Directive 2009/73/EC.
30 See Article 2(5) of the Directive 2009/73/EC.
31 Energy Industry Act, §3 Nr.5.
32 The Agency notes that the identification of regional networks can be carried out based on a definition or on other methods. In the 2019 Agency Report The internal gas market in Europe: The role of transmission tariffs, the Agency provides a definition of regional networks as ‘pipelines that cannot be used to flow gas to cross-border IPs’. The Agency recommends that BNetzA assess whether such definition has a practical value for identifying regional networks. An alternative approach is that adopted by DNV-GL in its report where regional networks are identified on the basis of indicators and functional roles.
The topic of Regional networks has been discussed in a dedicated chapter of the 2020 Report *The internal gas market in Europe: The role of transmission tariffs* and was referred to in the final consultations of Austria, France, Italy, Lithuania and Spain. The Agency points out at the approach adopted by Austria as a best practice. Such solution led to the separation of regional networks into distribution assets.

3.4.4 Conditional products

The German network is characterised by the offering of a large share of conditional capacity. In the case of IPs, the share is around 61% at entries and around 57% at exits. The share at domestic exits is around 6%. Finally, the share at storage points stands between 50% to 65%.

Conditional capacity is used on the basis of point combinations, mainly between IPs. Conditional capacity is used on the larger pipelines crossing the German networks. The Agency nevertheless remarks that these pipelines cannot be solely associated with the cross-system use of the network, as the intra-system use also relies on this infrastructure.

BNetzA argues that while there are a number of TSOs offering a high share of capacity on conditional terms between IPs, *‘there are no pipelines that can be categorised as transit only, and despite the proportion of conditional capacity products, they are fundamentally integrated into the market area’*. BNetzA argues that the pipelines where a high share of conditional capacity is offered, are still dependent on other TSOs operating in the German network. The costs associated to the offering of conditional capacity cannot be identified independently of the rest of the network. BNetzA concludes that *‘even the network operators who exclusively run so-called transit pipelines, certain aspects certainly indicate that they are sufficiently integrated into the complex market area’*.

The Agency considers that the arguments provided by BNetzA support that pipelines associated with high shares of conditional capacity are not only used for cross-system but also intra-system purpose. At the same time, the Agency notes that BNetzA does not provide a systematic assessment of this matter across all point of the network. Such an assessment would allow understanding any possible correlation between the cross-system use of the network and the underlying unit costs. On the basis of such results, it would be possible to understand whether tariffs at IPs should be closer aligned to the unit costs associated with IPs.

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34 See §85 of the consultation document

35 See §93 of the consultation document

36 BNetzA argues that:
- First, TSOs that are offering high shares of conditional capacity still offer regular firm capacity and are therefore also integrated in the market are.
- Second, conditional products are often offered in combination with other capacity products. This suggests that conditional products are therefore integrated to some extent in the market area.
- Third, conditional capacity products have interruptible access to the trading hub. This implies some degree on integration in the market area.

37 See §89 of the consultation document
3.4.5  Comparison of the proposed postage stamp methodology with the separate application of the RPM

(69) In the Agency Report on the Gas Transmission Tariff Structure for Germany on 15 February 2019, the Agency referred to the differences in the tariffs derived via the separate application of the RPM and the joint application of the RPM. The Agency additionally recommended BNetzA to explain the difference in the motivated decision.

(70) BNetzA has provided this comparison on its motivated decision published in 2019. DNV-GL provides a similar comparison between tariffs calculated using the joint and the separate application of the RPM. The comparisons reveal, on average, an increase in the tariffs at IPs and a decrease in the tariffs at domestic exit points, as a result of the joint application of the postage stamp methodology.

(71) BNetzA argues in the consultation document, that the separate application of the RPM, as calculated in the tariffs applicable for 2018, lacks a compensation mechanism for inter-TSO services. For this reason, it cannot be taken as cost-reflective. BNetzA suggest that such mechanism is virtually impossible to agree following the unsuccessful negotiation record.

(72) The Agency considers that the separate application of the RPM has been a tool to challenge the cost reflectivity of the RPM. At the same time, the Agency reminds that the NC TAR prescribes the joint application of the RPM pursuant to Article 10(1) of the NC TAR. The separate application of the RPM is an exception which can only be extended until 2022 according to Article 10(4) of the NC TAR.

(73) Regarding the comparison between the joint and the separate application of the RPM, the Agency notes that.

- First, tariffs calculated per TSO do not necessarily achieve a greater degree of cost reflectivity than tariffs calculated jointly for all TSOs. This is because German TSOs have assets that are used for cross-system and for intra-system purposes. The combination depends on the assets that fall under the ownership of the TSOs, which can change over time. The separate application of the RPM does therefore not reflect the underlying costs associated with the cross-system and the intra-system use of the network, as it would be the case if some TSO served exclusively for cross-system use and others from intra-system use.

- Second, the recommendation made in this Report to BNetzA to further assess the correlation between the costs and the use of the network, should be completed by looking at the costs associated to points at the network and not at the assets per TSO. This consideration follows from the previous point. The cross-system and intra-system use of the network is associated with points and not with the assets of the TSOs.

39 ‘Since [11 October 2017] tariffs have continued to be set separately without a compensation mechanism’. See §73 of the consultation document
40 ‘According to Article 10(3) second sentence of Regulation (EU) 2017/460, such a mechanism would be mandatory as of 1 January 2020 in the event of any reference price methodology being applied separately’. See §73 of the consultation document
41 See §74 of the consultation document
3.5 Other elements of the consultation

In the consultation document, BNetzA provides a number of justifications as required by the NC TAR.

3.5.1 Comparison with the CWD methodology

The NC TAR requires to compare the proposed methodology with the CWD methodology as laid out in Article 8 of the NC TAR.

BNetzA provides a comparison of the tariffs derived using the CWD methodology and the postage stamp methodology. In order to facilitate the comparability of both methodologies, BNetzA provides two calculations for the CWD methodology, one with the 50%-50% entry-exit split (as required by Article 8(1)(e) of the NC TAR), one with 36.90%-63.10% entry-exit split (coinciding with the entry-exit split of the proposed postage stamp methodology).

Overall, the application of the CWD methodology leads to higher tariffs at IPs and lower tariffs at domestic points. This is summarised in Table 1 below.

Table 1: Price difference between the indicative reference price according to the postage stamp and according to the CWD methodology (after rescaling). Source: BNetzA consultation on Article 26.

<table>
<thead>
<tr>
<th>Type of point</th>
<th>Proposed postage stamp RPM</th>
<th>CWD with a 50%-50% entry-exit split (in EUR-Ct)</th>
<th>Price difference postage stamp vs CWD 50%-50% (after rescaling)</th>
<th>CWD with a 36.90%-63.10% entry-exit split (in EUR-Ct)</th>
<th>Price difference postage stamp vs CWD 36.90%-63.10% (after rescaling)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-border IP</td>
<td>368.69</td>
<td>517.82</td>
<td>40.4%</td>
<td>389.88</td>
<td>5.7%</td>
</tr>
<tr>
<td>Domestic production entry</td>
<td>368.69</td>
<td>338.36</td>
<td>-8.2%</td>
<td>274.95</td>
<td>-25.4%</td>
</tr>
<tr>
<td>Storage</td>
<td>368.69</td>
<td>460.10</td>
<td>24.8%</td>
<td>347.98</td>
<td>-5.6%</td>
</tr>
<tr>
<td>Biogas</td>
<td>368.69</td>
<td>486.98</td>
<td>32.1%</td>
<td>366.65</td>
<td>-0.6%</td>
</tr>
<tr>
<td>PtG</td>
<td>368.69</td>
<td>510.30</td>
<td>38.4%</td>
<td>384.22</td>
<td>4.2%</td>
</tr>
<tr>
<td>Exits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-border IP</td>
<td>368.69</td>
<td>343.30</td>
<td>-6.9%</td>
<td>428.20</td>
<td>16.1%</td>
</tr>
<tr>
<td>Internal booking of a DSO</td>
<td>368.69</td>
<td>277.23</td>
<td>-24.8%</td>
<td>332.74</td>
<td>-9.8%</td>
</tr>
<tr>
<td>Storage</td>
<td>368.69</td>
<td>308.79</td>
<td>-16.2%</td>
<td>383.35</td>
<td>4.0%</td>
</tr>
<tr>
<td>End user connection</td>
<td>368.69</td>
<td>272.34</td>
<td>-26.1%</td>
<td>337.69</td>
<td>-8.4%</td>
</tr>
</tbody>
</table>

Green represents the increase of the tariffs derived using the CWD methodology compared to the proposed postage stamp. Red represent decreases.

In view of BNetzA, the CWD methodology ‘carries the risk of overemphasizing distance as a cost driver compared to other potential cost drivers’\(^{42}\). BNetzA argues that ‘the complexity and meshed structure of the German gas transmission networks prevent distance from being considered an appropriate cost driver’\(^{43}\). In addition, BNetzA argues that ‘the more complex the system is, the lower the probability of distance becoming cost-reflective’\(^{44}\).

The Agency understands that while distance can increase the cost-reflectivity of a methodology, in the particular case of the German network, it is not only distance that is a potentially relevant cost

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\(^{42}\) See §105 of the consultation document

\(^{43}\) See §103 of the consultation document

\(^{44}\) See §103 of the consultation document.
driver, but also unit costs. The differences in costs that are potentially associated with the intra-
system and cross-system use of the network are better represented using unit costs as an input to
the RPM. The CWD methodology should lead to a more cost-reflective result as long as the network
it is applied to is relatively homogeneous. As has been argued previously, this is unlikely to be the
case for the German system. For this reason, in the particular German case the CWD methodology
may not necessarily be more cost-reflective. In addition, the CWD shows other disadvantages
compared to the proposed postage stamp methodology with are described in Section 5.1.1 on
Transparency.

3.5.2 Alternative options RPMs assessed by BNetzA

As part of the consultation documents, BNetzA assesses several methodologies that are an
alternative to the proposed postage stamp methodology.

First, BNetzA compares the proposed postage stamp methodology to a matrix methodology.
BNetzA considers that this methodology ‘does not constitute a practical methodology for Germany’s
transmission network’\(^{45}\). First, the methodology requires the use of various cost drivers that include
capacity, distance and potentially unit costs. These inputs are used per point of the network and
the final tariffs depend on the input at the relevant points. The methodology requires extensive data
inputs, which would amount to almost one million values for the German network\(^{46}\). In addition,
BNetzA argues that the calculations associated with the matrix methodology ‘can only be achieved
if the transmission network exhibits a stable, typical flow’\(^{47}\). This condition is not met in the German
network.

The matrix methodology has the potential to address the issue identified of a potential lack of cost-
reflectivity, since it can also include unit cost as an input. However, in the absence of stable flows
in the network matrix is not a relevant alternative.

Second, BNetzA assesses two additional methodologies a postage stamp per type of network point,
and a function specific postage stamp on the basis of explicit cost allocation according to transport
tasks\(^{48}\). The Agency refers to the functional postage stamp as part of the section above on regional
networks.

3.5.3 Cost allocation assessment

The NC TAR requires to calculate the cost allocation assessment for the proposed methodology
pursuant to Article 5 of the NC TAR.

BNetzA proposes several scenarios to understand the effect of storage bookings on the CAA and,
consequently on potential cross-subsidisation between the cross-system and intra-system use of
the network. The calculation of the CAA as laid out in Article 5 of the NC TAR set exit flows at IPs

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\(^{45}\) See §127 of the consultation document.

\(^{46}\) See §127 of the consultation document.

\(^{47}\) See §127 of the consultation document.

\(^{48}\) See §111-§125 of the consultation document.
as a proxy to identify cross-system flows. This presupposes that capacity booked at storage points is always booked for the purpose of intra-system use. However, as BNetzA points out, this might not be the case in certain networks. There are two exceptions applicable for the German network where storage can be used for cross-system flows:

- First, in the case of storages connected to neighbouring MSs;
- Second, in the case of cross-system users that use the German storage facilities before transporting the gas to neighbouring markets.

In order to understand these effects, BNetzA proposes several scenarios where cross-system flows are not only based on exit flows at IPs, but also on exit flows at storage points. BNetzA proposes several ratios to measure what the impact on the CAA would be should storage be used for cross-border purposes to variable degree. The actual use of storage for cross-system use is not known. These scenarios are summarised in Table 2 below.

Table 2: Scenarios for the costs allocation assessment and for the CWD methodology. Results provided by BNetzA.

<table>
<thead>
<tr>
<th>Percentage of forecasted contracted capacity at exits from storage assigned to cross-system flows</th>
<th>CAA result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit to storage attributed to intra-system use</td>
<td>0%</td>
</tr>
<tr>
<td>Exit to storage attributed as cross-system flows pro-rata (based on contracted capacity at domestic points/IPs this amounts to 29%)</td>
<td>29%</td>
</tr>
<tr>
<td>Exit to storage attributed as cross-system use up to 50%</td>
<td>50%</td>
</tr>
<tr>
<td>Exit to storage attributed as cross-system use 100%</td>
<td>100%</td>
</tr>
<tr>
<td>CAA calculated for the CWD methodology</td>
<td>0%</td>
</tr>
</tbody>
</table>

Note: The table displays the scenarios calculated by BNetzA. For each of the scenarios, the table displays the amount of forecasted contracted capacity that was allocated as cross-system use. For each of the scenarios, the table displays the CAA result separately for each of the entry-exit zones.

The Agency considers that such a calculation is a best practice as it allows understanding the impact of storage on cross-subsidisation. The Agency notes that the result of the CAA index is only above 10%, if the share of storage used for cross-system purpose is assumed to be 100%. BNetzA considers the 100% scenario not appropriate, and rather theoretical. BNetzA considers as a more accurate approximation the scenario where the share of storage used for storage purposes replicates the share of forecasted capacity booked at exit points in the system (pro-rata scenario). In such scenario, the results of the CAA is 5.40%. The Agency finds BNetzA’s assumptions reasonable and notes that these results remain within the 10% threshold and require no further justification.

Under the current proposal, the CAA serves as a check of the proportion of booked capacity at entries and at exits. In addition, it allows weighting the cross-subsidisation effect of the applied adjustments (discounts to storage and benchmarking). BNetzA also acknowledges this point in the consultation document: ‘all that is assessed is merely whether factors beyond the reference price methodology such as multipliers or discounts for interruptible capacity lead to higher or lower reserve prices for intra-system and cross-system network use’. At the same time, the Agency

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49 See §35 of the consultation document.
notes that the results of the CAA do not provide information on the appropriateness of the RPM and its cost drivers with regard to the characteristics of the German network.

In addition, the Agency notes that the impact of conditional products in this calculation is not clear. BNetzA has communicated to the Agency that the discounted tariffs for conditional capacity are used in the calculation of the CAA. At the same time, the Agency notes that conditional capacities could have different associated costs compared to firm capacity. These different associated costs are not taken into account in the CAA calculation. For this reason, the difference that the conditional products entail for the purpose of the CAA is only taken into account with respect to the tariffs and not with respect to the associated costs. The Agency understands that the use of the CAA as a tool to validate the proposed postage stamp methodology is limited.

3.5.4 Adjustments to the RPM

The Agency notes that this application of the benchmarking adjustment, as applied by BNetzA, follows the rationale of the guidelines provided in the Agency’s Report The internal gas market in Europe: The role of transmission tariffs. The only exception is that BNetzA does not refer to the tariffs applicable for competing routes, but rather to the tariffs from an existing route compared with the tariffs for a pipeline that could be built should the non-benchmark tariffs be applied. Absent benchmarking, a pipeline with direct access would be built. The Agency finds this approach compliant with the NC TAR.

BNetzA proposes to apply a 75% discount to entry points from and exit points to storage facilities. BNetzA also applies this discount to storage facilities connected to neighbouring entry-exit systems, unless the specific capacity booking allows for a transfer of gas to neighbouring entry-exit-system. This is compliant with Article 9(1) of the NC TAR that states that discounts shall be applied ‘unless and to the extent a storage facility which is connected to more than one transmission or distribution network is used to compete with an IP’.

3.6 Conclusion

Based on the evidence provided in the consultation, the Agency considers that the cost reflectivity of the proposed RPM has not been proved, although some progress has been made compared to the consultation launched by BNetzA in 2018. Yet, the Agency repeats its conclusion reached in the 2019 Agency Report on the Gas Transmission Tariff Structure for Germany. Based on the information provided in the consultation document, the Agency cannot conclude whether the RPM is compliant with the principles of cost-reflectivity, and as a corollary, avoiding cross-subsidisation and non-distortion of cross-border trade.

The compliance with the requirements on volume risk, discrimination and transparency is also examined in the Section 5.1 below. Concerning in particular the requirements of cost reflectivity, prevention of undue cross-subsidisation and non-distortion of cross-border trade, the Agency recommends the following:

• First, BNetzA should assess whether the Agency’s understanding that it is likely that regional networks are in place in the German system is correct. One way to do so would be to look into a correlation between the differences in unit costs of the network and the cross-system and intra-system use of the system. The evidence provided by BNetzA to the Agency on 7 July can support this analysis and can be made part of the motivated decision following the consultation. The Agency points out that the identification of regional networks has been done or is underway in Austria, France, Italy, Lithuania and Spain. Once these regional networks are identified, they should be properly delineated.

• Second, once the regional networks are identified and delineated, BNetzA should allocate the costs of regional networks to end-users of the German network. One way to meet this objective could be to move regional networks into distribution. As a reference for the duration to complete such a task, the Agency points at the case of Lithuania, where a two year plan was designed to move regional networks to distribution. In parallel, the Agency will support such an implementation by carrying out a process, involving NRAs and the EC, to develop a EU definition of regional networks together with recommendations to deal with them. Such a common definition would promote a harmonised approach in the various Member States where this issue appears.

The Agency recommends that BNetzA include the following information as part of the motivated decision pursuant to Article 27(4) of the NC TAR:

• A description of the inter- TSO services referred to in the consultation document and an explanation of how these services are an impediment to identify the costs associated to cross-system and intra-system use.
• A description of the processes associated with the market merger that lead to the decoupling of transmission services and costs. According to BNetzA these processes impede the identification of the costs associated to cross-system and intra-system use.

4. Completeness

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

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.

Article 26(1) of the NC TAR requires that the consultation document be published in the English language, to the extent possible. The Agency remarks that the consultation document was published in English.

Overall, all the information listed in Article 26(1) of the NC TAR has been properly published.

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51 See https://www.regula.lt/dujos/SiteAssets/Action plan_EN.pdf
52 See §62-§76 of the consultation document.
Table 3: Checklist information Article 26(1).

<table>
<thead>
<tr>
<th>Article</th>
<th>Information</th>
<th>Published: Y/N/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>26(1)(a)</td>
<td>the description of the proposed reference price methodology</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(a)(i)</td>
<td>the indicative information set out in Article 30(1)(a), including:</td>
<td>Partially. The justification of the proposed cost driver is not sufficient as BNetzA does not provide a correlation between the costs and the use of the network.</td>
</tr>
<tr>
<td>26(1)(b)</td>
<td>the value of the proposed adjustments for capacity-based transmission tariffs pursuant to Article 9</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(c)(i)</td>
<td>the indicative reference prices subject to consultation</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(c)(ii)</td>
<td>the results, the components and the details of these components for the cost allocation assessments set out in Article 5</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(d)</td>
<td>the assessment of the proposed reference price methodology in accordance with Article 7</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(e)</td>
<td>where commodity-based transmission tariffs referred to in Article 4(3) are proposed:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>26(1)(f)</td>
<td>where non-transmission services provided to network users are proposed:</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(g)</td>
<td>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:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>26(1)(h)</td>
<td>the indicative information set out in Article 30(2);</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(i)</td>
<td>the indicative information set out in Article 30(1)(b)(i), (iv), (v)</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(j)</td>
<td>the manner in which the associated non-transmission services revenue is reconciled as referred to in Article 17(3)</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(k)</td>
<td>the indicative non-transmission tariffs for non-transmission services provided to network users</td>
<td>Yes</td>
</tr>
<tr>
<td>26(1)(l)</td>
<td>the process of offering capacity at an interconnection point where both fixed and floating payable price approaches referred to in Article 24 are proposed</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
5. Compliance

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

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.

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, requesting special attention to be paid to the allocation of revenues between domestic and transit routes.

In this section, the Agency takes into account the analysis on the proposed postage stamp in Chapter 3 above. The conclusions of this analysis are particularly relevant for the compliance with the requirements on cost-reflectivity, prevention of undue cross-subsidisation and non-distortion of cross-border trade.

5.1.1 Transparency

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.

The proposed RPM is a postage stamp methodology, which is easy to understand and to replicate. The information required for replicating the reference prices is publicly available in full. For this reason, the Agency considers that network users would be able to reproduce the calculation of the reference prices, as required by Article 7(a) of the NC TAR.

The Agency further considers that the simplified tariff model is complete and allows network users to forecast reference prices. The Agency considers it good practice that the model allows network users to adjust the assumptions on the annual development of the allowed revenues and forecasted contracted capacity from 2021 onwards to assess the effect on the reference prices. Following this, the Agency considers that network users would be able to compare the proposed reference prices with the reference prices of other tariff periods of the regulatory period, as required by Article 30(2)(b) of the NC TAR.

In addition to the reproducibility and forecasts of reference prices, BNetzA argues that the postage stamp methodology 'prevents the inappropriate, non-transparent allocation of costs within a complex methodology in a manner that is not easily apparent to market participants'. This is because the postage stamp methodology uses, as an input, only contracted capacity and the target

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53 The principle of cost-reflectivity is related to the principles of cross-subsidisation and non-distortion of cross-border trade. Tariffs that are fully cost-reflective do not result in any form of cross-subsidisation (and hence they do not distort cross-border trade), as they charge users for the exact costs they cause to the system. Following this reasoning, tariffs that are less cost-reflective may result in cross-subsidisation between users.

54 See §105 of the consultation document.
revenues at an aggregated level. The proposed postage stamp methodology has a high tolerance to forecast errors as the resulting tariffs do not depend of the booked capacity at specific points.

The input parameters to the RPM can be easily accessed and understood by network users. In the proposed postage stamp methodology, the same tariff is calculated for all points. The Agency agrees with this reasoning on simplicity and values transparency on the derivation of reference prices resulting from the proposed RPM.

5.1.1.1 Time period for which the RPM is set

At the same time, the Agency notes that the consultation document does not specify the time period during which the proposed RPM would apply, the only information in this regard being the starting date on 1 October 2021, with no explicit reference to an end date. It must be pointed out that the period cannot last more than five years, since, according to the provisions of Article 27(5) of the NC TAR, the consultation procedure should be repeated at least every five years.

In the view of the Agency, such uncertainty regarding the period for which the RPM will apply undermines the possibility for network users to accurately forecast reference prices in future years.

The Agency recommends BNetzA to specify, in its final decision, the time period for which the consulted RPM and parameters are set, or at least to indicate the conditions that would trigger a new consultation process.

The Agency considers that the proposed RPM is compliant with the requirement of ensuring that network users can reproduce the calculation of reference prices and produce an accurate forecast.

5.1.2 Cost-reflectivity

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.

As laid out in Chapter 3 of this report, BNetzA does not provide a sufficient justification supporting the choice of RPM. For this reason, the Agency cannot conclude that the proposed postage stamp is compliant with the requirement of cost-reflectivity.

5.1.3 Cross-subsidisation and discrimination

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

5.1.3.1 Non-discrimination

The Agency has not identified discrimination resulting from the correct application of the NC TAR, nor from practices not compliant with the NC TAR. For this analysis, the Agency defines ‘discrimination’ as ‘applying different rules to comparable situations or the same rule to different

See §50-§51 of the consultation document.
situations’. The Agency concludes that 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.

5.1.3.2 Cross-subsidisation

Following the conclusion on cost-reflectivity, the Agency cannot conclude that the proposed postage stamp is compliant with the requirement of preventing undue cross-subsidisation.

5.1.4 Volume risk

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.

According to information provided by BNetzA, approximately 47.8% of the flows entering the market zone Trading Hub Europe cross the network. This implies that the transport of gas across the network is not higher than the gas destined for final customers.

The Agency considers the consultation compliant with the principle of avoiding volume risk.

5.1.5 Cross-border trade

Article 7(e) of the NC TAR requires that the RPM ensure that the resulting reference prices do not distort cross-border trade.

In the consultation document, BNetzA relates the compliance with the requirement on non-distortion of cross-border trade with the compliance with the requirement of cost reflectivity. ‘Ultimately [the distortion of cross-border trade at IPs] comes down to whether a cost-reflective tariff is set at these points’. The Agency agrees with this reasoning.

However, given the insufficient justification of the proposed RPM and the conclusion of the Agency on the compliance with cost reflectivity in paragraph (112) above, the Agency cannot conclude that the proposed methodology does not distort cross-border trade. At the same time, the Agency acknowledges that the proposed RPM results in tariff increases at IPs. Should such effect be the result of applying a non-cost-reflective methodology, the Agency considers that such tariffs would distort cross-border trade.

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

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.

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56 Email received by the Agency on 15 July 2020. Data based on 2018 gas volumes.

57 See §155 of the consultation document.
BNetzA proposes not to apply commodity-based transmission tariffs. The criteria for setting commodity-based transmission tariffs as set out in Article 4(3) are therefore not applicable.

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

Non-transmission tariffs shall be cost-reflective, non-discriminatory, objective and transparent and shall be charged to the beneficiaries of the non-transmission service.

5.3.1 Market area conversion charge

BNetzA proposes a market area conversion charge (‘MACL’) to cover the costs network operators face when carrying out the necessary technical adjustments at connection points, customer facilities and consumer appliances related to the conversion of L-gas to H-gas. As BNetzA points out in the consultation document, these costs are not fully related to TSOs, but to distribution system operators (‘DSO’) and final customers. The MACL charge is set at all exit points with the exception of IPs and storage points (i.e. domestic points). The Agency understands that these costs are not driven by capacity and distance, but by connected customers’ consumer appliances requiring conversion.

The Agency agrees that the costs related to the MACL are not fully related to TSOs. According to Article 3(15) of the NC TAR, non-transmission services should be services provided by the TSO. For this reason, the costs associated to the MACL charge do not formally classify as a non-transmission services. Nevertheless, the Agency remarks that by qualifying these costs as non-transmission services, the resulting tariffs are subject to the requirements for non-transmission services that BNetzA assesses in the consultation document. The Agency considers this approach beneficial as it provides more transparency to stakeholders. While the legal instrument is not fully consistent with the NC TAR, the Agency notes that the approach taken by BNetzA does not lead to economic damage. This is because the costs, which are related to the German network, are allocated to domestic exit points and not to IPs. In this manner, they are allocated to the beneficiaries of the service.

BNetzA explains that there can be differences between the forecasted MACL revenue to be recovered and the actual costs incurred. Such differences are to be reconciled using a mechanism different than the TSO regulatory account. The differences are settled in payments between TSOs ‘in order to prevent individual transmission system operators from obtaining higher or lower revenues from the charge than correspond to the conversion costs specifically arising in their network area’.

The Agency acknowledges that BNetzA has addressed the recommendation made in the 2019 Agency Report on the Gas Transmission Tariff Structure for Germany to ensure that an appropriate

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58 See §233 of the consultation document.
59 See §233 of the consultation document.
60 See §231 of the consultation document.
61 See §234 of the consultation document.
62 See §234 of the consultation document.
design of the regulatory account prevents the under- and over- recoveries, associated to the MACL, being allocated to all users of the network (including IPs). This represent and improvement to the initial mechanism for the MACL consulted in the consultation launched by BNetzA in 2018.

5.3.2 Biogas charge

BNetzA proposes a biogas charge to cover the costs associated to the injection of biogas to the German network. These costs are related to TSOs, DSOs and finally to shippers who input gas in the network and receive a feed-in tariff of €0.0007/kwh. BNetzA sets the biogas charge at all exit points, with the exception of IPs and exit points to and entry points from storage.

The Agency notes that the costs related to the biogas charge are not fully related to TSOs. According to Article 3(15) of the NC TAR, non-transmission services should be services provided by the TSO. For this reason, the costs associated to the biogas charge do not formally classify as a non-transmission services. Nevertheless, the Agency remarks that by qualifying these costs as non-transmission services, the resulting tariffs are subject to the requirements for non-transmission services that BNetzA assesses in the consultation document. The Agency considers this approach beneficial as it provides added transparency to stakeholders. While the legal mean is not fully consistent with the NC TAR, the Agency notes that the approach taken by BNetzA does not lead to economic damage. This is because the costs, which are related to the German network, are allocated to domestic points and not to IPs.

BNetzA points out that the input of biogas in the network provides decentralised input of gas that increases liquidity. This benefits all end-consumers connected to the German network, who are consequently charged a biogas charge that is set at domestic exits.

The share of costs to be allocated between TSOs and DSOs is based on national law and on BNetzA’s regulatory decisions which establish that the share of costs shall be equal for each end consumer. In the case of TSOs, the relevant costs are not triggered by capacity and distance but are related to the biogas facilities connected to the network. ‘Network operators must ensure that biogas facilities are connected to the network, and as a rule they bear 75% of the costs of this. The biogas input facility constructed in this process and its connecting line to the existing network undoubtedly constitute investments in the network operator’s asset base. In addition [...] the network operator is responsible for maintenance and operation of the network connection and the input facility. These are not investments but operational costs’.

Finally, a reconciliation mechanisms is in place in case the revenue recovered via the biogas differs from the actual costs incurred. Such differences are reconciled using a mechanism different than the TSO regulatory account.

The Agency acknowledges that BNetzA has addressed the recommendation made in the 2019 Agency Report on the Gas Transmission Tariff Structure for Germany to ensure that an appropriate design of the regulatory account prevents the under- and over- recoveries, associated to the biogas

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63 See §238 of the consultation document.
charge, being allocated to all users of the network (including IPs). This represents and improvement to the initial mechanism for the biogas consulted in the consultation launched by BNetzA in 2018.

5.3.1 Meter operation at exit points to end users

In the consultation, BNetzA proposes to allocate metering costs both as transmission and as non-transmission service.

Metering costs allocated as transmission revenues are assigned using the RPM. These metering costs should not be targeted to specific beneficiaries, as they are related to metering stations from which all users benefit (e.g. metering at entry points of the network). These costs can therefore be allocated to all users of the network as a transmission service.

Non-transmission charges are used to allocate metering costs in the cases where the beneficiaries of the service can be identified (i.e. end-users connected to the transmission network). In such cases, BNetzA notes that the costs associated to metering depend on the ownership of the metering stations. In any event, the service classifies as non-transmission as it is not related to capacity and distance.

BNetzA clarifies in the consultation that the provision of metering services is not a natural monopoly but a competitive activity\(^{64}\). Users can therefore opt for contracting providers different from TSOs or for operating the metering station themselves. For this reason, BNetzA does not regulate the tariffs applicable to metering as a non-transmission charge. TSOs are free to set the price in a competitive market environment.

In the 2019 Agency Report on the Gas Transmission Tariff Structure for Germany, the Agency recommended BNetzA to clarify the reconciliation mechanism applicable to the metering services when charged as a non-transmission service. BNetzA proposes to apply a second regulatory account per TSO for the purpose of reconciling the revenue associated to the service\(^{65}\). This allows TSOs avoiding cross-subsidisation with the transmission revenue. BNetzA indicates that such approach will be applicable after a transition period during which the reconciliation will take place together with the reconciliation of transmission revenue. The new regime will be applicable for the first time in the tariffs for the calendar year 2022\(^{66}\).

The Agency finds the approach compliant with the requirements for the NC TAR.

5.3.2 Alternative nomination procedure

BNetzA proposes a non-transmission charge to cover the costs of a service providing an alternative nomination procedure to users not willing to submit nominations by themselves. TSOs provide a service to complete the nomination procedure for network users. As BNetzA points out in the

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\(^{64}\) See §246 of the consultation document.

\(^{65}\) See §247 of the consultation document.

\(^{66}\) See §248 of the consultation document.
consultation, the costs associated to these services are not related to capacity and distance, so they classify as non-transmission service.

(142) Based on the information provided in the consultation, the Agency considers that the alternative nomination procedure charge complies with the requirements of cost-reflectivity, non-discrimination, objectivity and transparency. In addition, they are charged to the beneficiaries of the service.

6. Other comments

6.1 Biogas and power-to-gas reference prices

(143) The Agency notes that BNetzA proposes not to charge entry tariffs for the input of biogas and PtG installations. BNetzA argues that these sources reduce the cost of the network and they provide long-term benefits for the network and support climate change policies. While the Agency understands these arguments, the NC TAR requires that the same RPM be applied to all entry and exit points in a given entry-exit system (Article 6(3) of the NC TAR) and does not allow adjustments other than those listed in Article 6(4) of the NC TAR. BNetzA may also need to find support measures for renewable gases in compliance with NC TAR and/or applicable state aid measures, if those were appropriate in this context.

(144) In addition, the Agency recommends BNetzA to monitor the impact of these costs over tariffs at IPs. In the consultation, BNetzA notes that these costs currently represent 0.04% of the total revenues for each of the entry-exit system. The Agency also considers these sums currently as negligible. However, as they may change in the future, it is important to have the possibility to reconsider these reference prices going forward. In this context, it may also be relevant to discuss such schemes at a European level to understand their potential benefits.

(145) This recommendation has been provided in the case of another tariff consultation proposing zero reference prices to biogas inputs to the network (Belgium).
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 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.

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 cost-reflectivity 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 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

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<td>ACER</td>
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<td>Cost Allocation Assessment</td>
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<td>Capital Expenditures</td>
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<td>Capacity Weighted Distance</td>
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<td>DSO</td>
<td>Distribution system operator</td>
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<td>ENTSOG</td>
<td>European Network of Transmission System Operators for Gas</td>
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<td>European Union</td>
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<td>Interconnection Point</td>
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