



DECISION

In the administrative proceedings pursuant to section 29(1) of the Energy Industry Act (EnWG) in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 6(11) and Article 7(3) of Regulation (EC) 715/2009 in conjunction with Article 4(1), Article 4(2), Article 4(4), Article 6(4)(a) and (c), Article 27(4) sentence 1 and Article 27(5) of Regulation (EU) 2017/460 and also section 29(1) EnWG in conjunction with section 32(1) para 11 of the Incentive Regulation Ordinance (ARegV) in conjunction with section 28 sentence 1 para 3 ARegV

concerning the periodic decision making regarding the reference price methodology and the other points listed in Article 26(1) of Regulation (EU) 2017/460 applicable to all transmission system operators (REGENT 2021)

Party summoned:

EnBW Energie Baden-Württemberg AG, Durlacher Allee 93, 76131 Karlsruhe, legally represented by its management board,

- Party summoned 1) -

Gazprom export LLC, Ostrovskogo Sq. 2a letter "A", Saint Petersburg 191023, Russia, represented by its Director General,

- Party summoned 2) -

Legal representatives of the party summoned 2): Gleiss Lutz Hootz Hirsch PartmbB
Rechtsanwälte, Steuerberater (HQ Stuttgart, AG Stuttgart PR 136)

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, legally represented by its management board,

- Party summoned 3) -

Legal representatives of the party summoned 3): Rechtsanwalt Manfred Ungemach, Kaiser-Wilhelm-Ring 40, 40545 Düsseldorf,

Uniper Global Commodities SE, Holzstraße 6, 40221 Düsseldorf, legally represented by its management board,

- Party summoned 4) -

Legal representatives of the party summoned 4): Uniper SE, Holzstraße 6, 40221 Düsseldorf, represented by its management board,

Ruling Chamber 9 of the Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen, Tulpenfeld 4, 53113 Bonn,

represented by

the Chair Dr Christian Schütte,

the Vice Chair Dr Ulrike Schimmel

and the Vice Chair Roland Naas

decided on 11 September 2020:

1. The reference price methodology to be used by the transmission system operators operating in the German market area for calculating reference prices is determined as being the calculation of non-distance related entry and exit tariffs (so-called uniform postage stamp tariffs). This entails dividing the transmission services revenue by the average contracted non-adjusted capacities at the entry and exit points forecasted for the calendar year. No capacities shall be taken into account and no entry tariffs charged for

the input of biogas, hydrogen produced by water electrolysis, or gas manufactured using hydrogen produced by water electrolysis with subsequent methanation (power-to-gas). For the months of October to December 2021, when calculating the reference prices the transmission system operators must run a hypothetical booking forecast that assumes there to be a single German market area for the whole of 2021.

2. Capacity-based transmission tariffs at entry and exit points at storage facilities for firm and interruptible capacity products and for capacity products with an attached condition shall be discounted by 75% if and insofar as the storage facility that is connected to more than one transmission or distribution network is not used as an alternative to an interconnection point. Before granting such a discount the transmission system operator must ask for proof from the storage facility operator that the facility cannot be used to compete with an interconnection point. Further discounts or year-round discounts other than the above-mentioned are not permissible.
3. A discount may be set for transmission tariffs for conditionally firm, freely allocable capacity (bFZK) and firm, dynamically allocable capacity (DZK). Discounting must not reduce capacity charges for bFZK and DZK to below the capacity charge for the interruptible standard capacity product (uFZK) with the lowest discount at this point. These provisions are also applicable to entry and exit points at storage facilities, although only after application of the discount determined according to operative part 2.
 - a) The network connection point connecting the end user Wacker Chemie AG to bayernets GmbH is subject to benchmarking in accordance with Article 6(4)(a) of Regulation (EU) 2017/460, otherwise a pipeline with direct access would have to be built. This arrangement shall only apply if the Überackern 2 entry point (network point 700069-8001-1) or the entry point at the underground storage facility Haidach (network point 700069-8021-1) are used to supply this end user via the relevant network connection point.
 - (1) If the reduced tariff is applied, firm or interruptible access to the virtual trading point (VTP) must be ruled out. If capacity products with access to the VTP are offered at these points, general tariff structures apply and not benchmarking if the access to the VTP is used with the duration of the capacity.
 - (2) Assuming an imputed duration of use for the impending direct pipeline of four years, the overall indicative tariff amounts to €0.93 per kWh/h/a for booking corresponding entry and exit capacities, whereby the tariff calculated according to operative part 3(b) is to be applied for the entry capacity. For the exit capacity, the tariff to be applied is the difference

between the indicative tariff of € 0.93 per kWh/h/a and the tariff calculated for the entry capacity. No other discounts at storage facilities are to be applied to these tariffs.

- (3) If evidence is provided to the Bundesnetzagentur that a longer imputed duration of use is appropriate, further reduced tariffs can be determined accordingly. In this case, the end user, as the petitioner, must enter into a contract with bayernets GmbH which obliges the former to pay the difference between the actual revenues generated from bookings made at the reduced tariff and the annual total costs of building the direct pipeline which were taken into account for calculating the reduced tariff. The duration of this contractual obligation must correspond to the assumed imputed duration of use. The contract setting out the obligation must be submitted to the Bundesnetzagentur.
 - (4) The reduced tariff is tied to the petitioner and to the relevant entry and exit points and is applied regardless of the shipper or the supplier to the end user. bayernets GmbH must recalculate the reduced tariff at the start of a regulatory period, using updated interest rates. The Bundesnetzagentur must be notified of every recalculation. The transmission system operator bayernets GmbH must always identify the reduced tariff transparently.
- b) The entry and exit points at the Haidach storage facility operated by astora GmbH & Co. KG and GSA LLC, connecting to bayernets GmbH (network points 700069-8021-1 and 700069-8021-2), are subject to benchmarking in accordance with Article 6(4)(a) of Regulation (EU) 2017/460, otherwise a pipeline with direct access would have to be built. In the case of gas being put into storage, this arrangement shall only be applied if the entry point Überackern 2 (network point 700069-8001-1) is used for this purpose. In the case of gas being withdrawn from storage, this arrangement shall only be applied if the exit point Überackern 2 (network point 700069-8001-2) is used for this purpose.
- (1) If the reduced tariff is applied, firm or interruptible access to the VTP must be ruled out. If capacity products with access to the VTP are offered at these points, general tariff structures apply and not benchmarking if the access to the VTP is used with the duration of the capacity.
 - (2) Assuming an imputed duration of use for the impending direct pipeline of four years, the indicative tariff amounts to €0.12 per kWh/h/a for booking corresponding entry capacity and €0.12 per kWh/h/a for booking

corresponding exit capacity. No other discounts at storage facilities are to be applied to these tariffs.

- (3) If evidence is provided to the Bundesnetzagentur that a longer imputed duration of use is appropriate, further reduced tariffs can be determined accordingly. In this case, the storage facility operator, as the petitioner, must enter into a contract with bayernets GmbH which obliges the former to pay the difference between the actual revenues generated from bookings made at the reduced tariff and the annual total costs of building the direct pipeline which were taken into account for calculating the reduced tariff. The duration of this contractual obligation must correspond to the assumed imputed duration of use. The contract setting out the obligation must be submitted to the Bundesnetzagentur.
- (4) The reduced tariff is tied to the petitioner and to the relevant entry and exit points and is applied regardless of the shipper. bayernets GmbH must recalculate the reduced tariff at the start of a regulatory period, using updated interest rates. The Bundesnetzagentur must be notified of every recalculation. The transmission system operator bayernets GmbH must always identify the reduced tariff transparently.
- (5) Gas volumes transported out of the Austrian market area and put into storage using tariffs reduced according to operative provision 3(b) must not be transported into the German market area using entry capacities discounted according to operative part 2. The relevant gas volumes may only be transported back into the Austrian market area using the tariff reduced according to operative part 3(b) or to the network connection point of the end user Wacker Chemie AG under operative part 3(a) or may be imported into the German market area using a non-discounted entry capacity. Gas volumes transported out of the German market area and put into storage using exit capacity discounted in accordance with operative part 2 must not be transported into the Austrian market area using tariffs reduced according to operative part 3(b). The relevant gas volumes may only be transported back into the German market area. The transmission system operators to whose networks the Haidach storage facility is connected must be given the relevant evidence for this by the petitioners at the Haidach storage facility and exchange information with each other insofar as is necessary for application of this paragraph.

4. Rescaling in accordance with Article 6(4)(c) of Regulation (EU) 2017/460 at all entry and exit points with the aim of actually being able to collect transmission services revenue shall be carried out by multiplying by a constant.
5. The costs that network operators have to bear in accordance with section 19a(1) sentence 1 EnWG for the technical adjustments of connection points, customer facilities and consumer appliances necessary for conversion of the gas quality within the network from L-gas to H-gas (conversion costs) shall be shared among all gas supply networks across the Federal Republic of Germany. The market area conversion charge is classified as a non-transmission service within the meaning of Article 4 of Regulation (EU) 2017/460.
 - a) Every year, the transmission system operators jointly calculate the total conversion costs to be reimbursed to their downstream distribution system operators and which they themselves expect to incur. In addition, they jointly calculate the forecasted total amount of exit capacities booked or ordered for the year in question at all exit points with the exception of interconnection points and storage points. The calculated total costs are shared evenly over the forecasted booked or ordered exit capacities at exit points with the exception of interconnection points and storage points and added to the corresponding capacity charges. The transmission system operators establish a compensation mechanism which ensures that the market area conversion charge does not affect the net income of individual transmission system operators.
 - b) The costs of conversion are borne equally by all network customers using exit points with the exception of interconnection points and storage points.
 - c) In cases where the capacities on which the calculation was based diverge from the capacities actually marketed, the resulting differences in generated revenues are balanced using a comparison between forecasted and actual values within the framework of the market area conversion charge system. Likewise, differences resulting from divergences between forecasted and actual conversion costs must be balanced using a comparison between forecasted and actual values within the framework of the market area conversion charge system. Both these differences are calculated individually in the calendar year after they were generated and are fully balanced in the following calendar year. Interest is incurred on these differences to the level of the amount committed on average in the calendar year to be balanced. The amount committed on average is calculated as the average of the figure at the beginning and end of the year. The interest rate is based on the average running yield of fixed-interest securities from German issuers over the previous ten full calendar years as published by the Deutsche Bundesbank.

6. The following costs shall be spread across all German networks: costs for efficient network connection and for maintenance and operation in accordance with section 33(2) of the Gas Network Access Ordinance (GasNZV), the measures pursuant to section 33(10) GasNZV and the measures pursuant to section 34(2) GasNZV, costs for extended balancing actions pursuant to section 35 GasNZV minus the lump sum to be paid by the balancing group manager pursuant to section 35(8) GasNZV, costs for measures pursuant to section 36(3) and (4) GasNZV and costs for the tariffs for avoided network costs to be paid by the network operator to the shippers of biogas in accordance with section 20a of the Gas Network Charges Ordinance (GasNEV) (biogas costs). The biogas charge is classified as a non-transmission service within the meaning of Article 4 of Regulation (EU) 2017/460.
- a) Every year, the transmission system operators jointly calculate the total biogas costs to be reimbursed to their downstream distribution system operators and which they themselves expect to incur. In addition, they jointly calculate the forecasted total amount of exit capacities booked or ordered for the year in question at all exit points with the exception of interconnection points and storage points. The calculated total costs are shared evenly over the forecasted booked or ordered exit capacities with the exception of interconnection points and storage points and added to the corresponding capacity charges. The transmission system operators establish a compensation mechanism which ensures that the biogas charge does not affect the net income of individual transmission system operators.
 - b) The biogas costs are borne equally by all network customers using exit points with the exception of interconnection points and storage points.
 - c) In cases where the capacities on which the calculation was based diverge from the capacities actually marketed, the resulting differences in generated revenues are balanced using a comparison between forecasted and actual values within the framework of the biogas charge system. Likewise, differences resulting from divergences between forecasted and actual biogas costs must be balanced using a comparison between forecasted and actual values within the framework of the biogas charge system. Both these differences are calculated individually in the calendar year after they were generated and are fully balanced in the following calendar year. Interest is incurred on these differences to the level of the amount committed on average in the calendar year to be balanced. The amount committed on average is calculated as the average of the figure at the beginning and end of the year. The interest rate is based on the average running yield of fixed-interest securities from German issuers over the previous ten full calendar years as published by the Deutsche Bundesbank.

7.

- a) For meter operation at exit points to end users, which also includes metering, meter operation charges are levied using a cost-reflective, non-discriminatory, objective and transparent methodology to be determined by the respective transmission system operator. Meter operation at these points is classified as a non-transmission service. In the event of divergences between the costs of meter operation at exit points to end users for the calendar year assuming efficient provision of services and the valuations included in the revenue cap in this regard, which result from changes in the number of connection users for whom meter operation is carried out by the network operator, such divergences – insofar as they have occurred from 2020 onwards – are balanced using a separate regulatory account. Any divergences that arose before 2020 are balanced using the normal regulatory account.
 - b) A meter operation charge reflecting the costs of the respective metering station and the costs of metering is also levied for meter operation at internal order points. Meter operation at these points is likewise classified as a non-transmission service.
 - c) Meter operation at interconnection points and at entry and exit points at storage facilities is classified as a transmission service.
8. Charges are levied for the alternative nomination procedure according to section 15(3) GasNZV in so far as it is used. The alternative nomination procedure is classified as a non-transmission service.
9. The directives in points 1 to 8 come into effect as of 1 October 2021.
- 10.

- a) If, prior to the repetition of this procedure in accordance with Article 27(5) sentence 4 of Regulation (EU) 2017/460, new circumstances arise which were not considered in this determination, in particular in the form of new non-transmission services for a transmission system operator, and which could make it necessary to reassess the points listed in Article 26(1) of Regulation (EU) 2017/460, the Bundesnetzagentur must be notified of such circumstances immediately.
- b) In order to assess the volume risk according to Article 7 sentence 2(d) of Regulation (EU) 2017/460, the transmission system operators must publish a joint report after the conclusion of each calendar year, by 31 January of the following calendar year, starting with the 2020 calendar year. The report must contain data on technical capacity, on the forecasted average contracted non-adjusted capacity, on the forecasted average contracted adjusted capacity and on the transmission

services revenue in the completed calendar year and must at least itemise the data according to the point types as set out in Annex 2 (until 30 September 2021 additionally according to the market area interconnection points between NCG and GASPOOL). The report must be structured to show the market areas NCG and GASPOOL for the period until 30 September 2021. Data on interconnection points must be itemised according to the adjacent entry and exit systems and/or neighbouring countries. In each case, the report must detail the developments compared to the same period in the previous year and explain to what extent the developments are the result of significant changes in technical capacity, the booking behaviour of network users or other factors. The report must point out if gas is transported using other entry and exit systems as substitutes. Furthermore, the report should detail the revenue lost as a result of the tariff exemption for biogas and power-to-gas.

11. The right to order payment of costs is reserved.

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Rationale

A.

1 The ruling chamber has opened own-initiative proceedings for the determination of a reference price methodology and the other points listed in Article 26(1) of Regulation (EU) 2017/460 for all transmission system operators operating in Germany.

I. Opening of the proceedings and consultation

2 Notification of the opening of proceedings was given in the Official Gazette 09/2019 of 15 May 2019 and simultaneously on the Bundesnetzagentur website.

3 The background to these proceedings is the network code on harmonised transmission tariff structures for gas (Regulation (EU) 2017/460), which entered into force on 6 April 2017 and is directly applicable European law yet also requires several implementing acts from the national regulatory authority. These acts need to undergo comprehensive consultation processes.

4 The Bundesnetzagentur conducted extensive surveys among the transmission system operators regarding all the information required for the cost allocation assessments according to Article 5 of Regulation (EU) 2017/460 and for assessment of the final consultation according to Article 26(1) of Regulation (EU) 2017/460. The plausibility of the data thus obtained was checked and any errors and implausibilities that became apparent were corrected as necessary in consultation with the transmission system operators concerned.

5 Based on the submitted reports and data entry forms, the Bundesnetzagentur developed the consultation version of the decision in accordance with Article 27(4) of Regulation (EU) 2017/460.

6 Even before the consultation proceedings began, an expert opinion from DNV GL Energy Advisory GmbH (DNV GL) in which among other things two alternative reference price methodologies were proposed was submitted by Gascade Gastransport GmbH, GRTgaz Deutschland GmbH and Gazprom export LLC via email dated 5 December 2019. Firstly it proposed a postage stamp tariff differentiated by point type with no explicit cost allocation according to transport tasks which had already been discussed in the BK9-18/610-NCG and BK9-18/611-GP proceedings under the designation "postage stamp tariff per type of network point". In this case each transmission system operator's revenue cap is to be shared between various point types, namely entry points from neighbouring market areas and production facilities, entry and exit points to storage facilities, exit points to end users and downstream network operators and exit points to neighbouring market areas, weighted according to the forecasted capacity bookings. The revenues to be generated per point type will be aggregated across all transmission system operators and divided by the corresponding capacities in order to determine a separate postage stamp tariff for each point type.

Secondly, for the first time a function-specific postage stamp on the basis of explicit cost allocation according to transport tasks is introduced into the debate. In this case each transmission system operator's revenue cap is to be shared between the two network functions intra-system and cross-system network use. The possible parameters proposed for the split are pipeline diameter (with all pipelines with a diameter >700 mm allocated to cross-system network use), pressure range (with all pipeline sections with a pressure range >60 bar allocated to cross-system network use) and capacity forecasts at cross-border points in relation to other network node points. The formation of function-specific revenue caps is proposed as a further variant. One postage stamp tariff will then be formed from this for intra-system network use and one for cross-system network use, for all transmission system operators. The tariff for cross-system network use will have to be paid by all network customers in the same way, whereas the tariff for intra-system network use at the internal exit points is calculated in addition to the tariff for cross-system network use.

- 7 The German and English versions of the draft decision and the expert opinion from DNV GL Energy Advisory GmbH were published on the Bundesnetzagentur website for final consultation within the meaning of Article 26(1) and (2) of Regulation (EU) 2017/460 from 16 March 2020 until 18 May 2020. Legally authoritative, however, are solely the German versions of the documents. At the same time, the consultation documents were submitted to the Agency within the meaning of Article 1(1) of Regulation (EC) No 713/2009 (ACER). The consultation was scheduled to last for two months.
- 8 This publication, by analogy with section 73(1a) sentence 1 EnWG and section 28(2) para 4 of the Administrative Procedure Act (VwVfG), took the place of the individual hearing required under section 67(1) EnWG for each person addressed.
- 9 On 16 March 2020, the Bundesnetzagentur notified the regulatory authorities of the federal states of the opening of proceedings in accordance with section 55(1) sentence 2 EnWG and gave the authorities the opportunity to comment on the intended determination in accordance with section 58(1) sentence 2 EnWG. Likewise on 16 March 2020, the Bundeskartellamt was given the opportunity to state its views on the intended determination in accordance with section 58(1) sentence 2 EnWG.
- 10 With the decision of 14 April 2020, party 1) was summoned to the proceedings in response to its application of 23 March 2020.
- 11 On 5 May 2020, a workshop took place via web conference for the BK9-19/607 (AMELIE 2021), BK9-19/610 (REGENT 2021) and BK9-19/612 (MARGIT 2021) determination proceedings. The workshop was organised by the Bundesnetzagentur and (in purely technical aspects) by FNB Gas e.V.

12 On 14 May 2020, the Bundeskartellamt stated that it did not wish to submit comments on the proceedings.

II. Summary of responses

13 Essentially, the following was stated at the workshop held on 5 May 2020 and in the 35 responses received by 18 May 2020:

1. Determination of a reference price methodology in accordance with Article 26(1)(a) of Regulation (EU) 2017/460 (operative part 1)

14 A large number of responses with opposing views were received on the determination of a reference price methodology. Some market participants were in favour of the consulted, uniform postage stamp, others preferred the function-specific postage stamp as proposed by some transmission system operators. Specifically:

a) The uniform postage stamp reference price methodology

15 Some companies and associations expressly welcomed the determination of a uniform postage stamp as the reference price methodology for the reasons set out below. This largely met the requirements of Regulation (EU) 2017/460, especially given the point model independent of the transport route, and was an expression of the cooperation between transmission system operators to establish the market area-wide entry capacity to and exit capacity from the VTP.

16 It enabled efficient use of the whole infrastructure, regardless of the transmission system operator with whom a booking was made. This was made possible, for instance, by regularly scheduled updates of the dispatching on an intraday basis, coordinated use of compressors and exchanging volumes to minimise physical transport. The larger the market areas, the more extensive the cooperation. This cooperation had to be reflected in the tariff model.

(1) Transparency

17 The uniform postage stamp reference price methodology was transparent and understandable for network users. Unlike the function-specific postage stamp, it was not dependent on further determinations with the associated leeway.

(2) Cost-orientation and complexity

18 The uniform postage stamp reference price methodology was based on the actual costs incurred against the background of the complexity of the transmission network. The Bundesnetzagentur had appropriately considered the high degree of complexity and correctly assumed a further increase in complexity through the market area merger.

- 19 The Trading Hub Europe (THE) market area was characterised by the fact that it was not tailored to particular use cases and gas flows but guaranteed a high degree of usage flexibility. It would enable gas imports from various sources via a large number of entry points. The imported volumes could be transported flexibly. Gas could be transited to various member states and domestic consumption could also be met by various sources within the market area. In addition, this flexibility of the gas network system was a basic prerequisite for liquid trading at the VTP. The proportion of conditional firm capacity products was not a factor that spoke against the complexity.
- 20 In addition, the assumption was correct that there were no pipelines that could be categorised solely as transit pipelines. Owing to the fact that bookings were abstracted from the specific infrastructure used, it followed that the infrastructure would not be relevant to the transport tariff. The cost driver of capacity was the decisive factor.
- 21 The postage stamp reference price methodology was the methodology typically used. It was sufficiently cost-reflective also against the background that all network users had access to a whole, inseparable system including the VTP.
- 22 The concept for an oversubscription and buy-back scheme for the joint market area that was supported by all the transmission system operators (BK7-19/037 and BK9-19/606 proceedings) showed that it was not possible to cost-reflectively allocate infrastructure and associated costs to individual transport services. There was a decoupling of the marketed capacity and the technical capacity that was represented with the physical infrastructure alone. The costs for the establishment of capacity were not essentially incurred where the need for market-based instruments (MBIs) was triggered. It was therefore not possible to identify the specific costs of a transmission service in a highly complex market area that was also represented by MBIs.

(3) Non-discrimination and cross-subsidisation

- 23 The positive cost allocation assessment showed that there was no undue cross-subsidisation. The uniform postage stamp treated equals equally and was non-discriminatory. All capacity bookings and network users were treated equally. Individual network users neither gained an advantage nor suffered a disadvantage through the capacity-based entry-exit split.
- 24 The comparison with the capacity weighted distance reference price methodology showed comparable cost attribution, although the costs attributed to cross-system network use were slightly higher with the capacity weighted distance reference price methodology. The payment flows discussed at the workshop made it clear that with both methodologies the costs attributed to intra-system network use were twice as high as the costs attributed to cross-system network use.

(4) Volume risk

- 25 Because the uniform postage stamp was non-discriminatory, any volume risks were appropriately shared between all network users. The volume risk regulation was created to protect captive customers, in particular for countries with mostly transit flows like Czechia and Slovakia. This was not the situation in Germany, where intra-system network use accounted for 65% of revenues and 53% of volumes.
- 26 A loss of significant transit volumes was neither currently evident nor anticipated following the introduction of the uniform postage stamp in Germany. Germany's infrastructure made it an important hub for Russian and Norwegian natural gas. Any long-term contracts terminated since 1 January 2020 had been replaced by a comparable level of short-term bookings.

(5) Distortion of cross-border trade

- 27 The uniform postage stamp reference price methodology did not lead to a distortion of cross-border trade. Any higher tariffs at cross-border interconnection points as such were not an indication of distortion. Distortion could only occur if tariffs were not cost-reflective, yet the uniform postage stamp prevented such tariffs. The uniform postage stamp had eliminated previously existing privileges for network users. There was now conformity between the network access system and the network tariff system.

b) Criticism of the uniform postage stamp

- 28 Various market participants criticised the uniform postage stamp for the reasons set out below. The uniform postage stamp did not take account of the wide differences between the costs of intra-system network use and the costs of cross-system network use in the highly heterogeneous German transmission network and was impermissible. The uniform tariff endangered Germany's position as a transit country because of excessive tariffs at cross-border interconnection points.

(1) Requirements of Article 7 of Regulation (EU) 2017/460

- 29 Article 7 sentence 2(b) and (c) of Regulation (EU) 2017/460 prohibited a uniform postage stamp as the reference price methodology if considerable cost differences arose between the different transmission services for intra-system and cross-system network use that could not be taken into account by a uniform postage stamp methodology. Other requirements of Article 7 of Regulation (EU) 2017/460 such as transparency and simplicity were already less important for legal reasons. The prohibition of undue cross-subsidisation and the requirement that cross-border trade must not be distorted reinforced the requirement of cost-reflectivity.

(2) Cost-orientation and complexity

- 30 The uniform postage stamp reference price methodology was indeed transparent and could reduce obstacles to network access. However, the methodology did not adequately reflect the actual costs of gas transport because it did not take account of distance, transport routes, the network operators providing transport and their cost structures. A very high degree of homogeneity with respect to the network, cost structures and use was therefore needed to be able to apply the methodology. This homogeneity only existed if a clear majority of capacity could be assigned either to local natural gas distribution or to cross-border gas transport.
- 31 The reference point was the costs of transmission services that were to be divided between cross-system and intra-system network use. The complexity of the market area could not be used as a reason not to do this. There were various gradations between directly allocating all costs and standardising costs using a uniform postage stamp.
- 32 A uniform postage stamp was only permissible if there were no or only negligible differences in cost structures, neither of which was the case. These cost differences were to be examined further using cost drivers such as technical capacity, pipeline diameters and pressure ranges.
- 33 The Bundesnetzagentur's assessments did not offer proof of network homogeneity, which was needed to be able to apply a uniform postage stamp. The true degree of meshing remained unclear and there was no explanation why the meshed structure should be proof of homogeneity.
- 34 Neither a combined analysis of all capacity bookings and revenues nor the additional analysis of intra-system and cross-system bookings and revenues made at the workshop was sufficient to assess cost-reflectivity. Specific transmission services needed to be assessed based on the different cost structures.
- 35 The DNV GL expert opinion in fact indicated a high degree of heterogeneity based on technical parameters. These technical parameters correlated with the functional role of intra-system and cross-system network use with the respective transmission system operators. These heterogeneous technical and functional structures were linked to diverging cost structures.
- 36 Contrary to the information presented in the consultation draft, cross-system network use did not account for 34.52% (of capacity), but a higher percentage of 47% (of volumes). This cross-system network use made use of pipelines with large diameters, which specifically incurred lower costs. The low number of cross-border interconnection points (46 on the entry side and 42 on the exit side) with high average input and offtake volumes (36.45 TWh and 17.7 TWh respectively) compared to the high number of exit points to end users and downstream network operators (512 and 609 respectively) with an average offtake volume of just 0.83 TWh reflected the system-related cost differences.

37 The DNV GL expert opinion used indicators to demonstrate the heterogeneity both among network operators and within the market area. In this context, intra-system network use would benefit not only from the economies of scale of larger pipeline diameters. Cross-system networks would also provide compressor capacity.

(3) Significance of free allocability and conditional capacity products

38 In addition, the high proportion of conditional capacity products due to internal technical restrictions spoke against the assumption that there was a meshed, homogeneous entry-exit system. A total of 61% of bookings at cross-border interconnection points on the exit side were made using such products; in these cases it was possible to identify a transport path and thus the infrastructure used because of the allocation restriction.

39 However, only a very small proportion (6%) of bookings to downstream network operators were made using conditional capacity products. Thus it was mainly intra-system network use that would benefit from free allocability, which is why the relevant costs should be charged to intra-system network use.

(4) Significance of the entry-exit system

40 Tariffs in the entry-exit system that were independent of the transport path did not justify a postage stamp model. The uniform reference price methodology incorrectly assumed that all bookings for firm, freely allocable capacity (FZK) were equal. The capacity weighted distance reference price methodology did not make this assumption and did not assume access to the VTP, but rather allocated costs based on the connection of entry and exit points.

41 The Bundesnetzagentur drew on identical conditions for access to and from the VTP. This resulted in identical prices for all network users. Here, the Bundesnetzagentur failed to recognise that the principle of appropriate pricing still applied in an entry-exit system.

42 Moreover, it was not mandatory to use the VTP, and the VTP was not used when booking an entry and an exit point within the context of point-to-point transport. Regulation (EU) 2017/460 did not attach importance to the VTP either, because the VTP could be represented with the same infrastructure that underpinned the entry and exit points.

43 A distinction between intra-system and cross-system network use was not made until the exit side. Under Article 5(5) of Regulation (EU) 2017/460, the amount of allocated capacity or flows attributed to the provision of transmission services for cross-system network use at all entry points was deemed equal to the amount of capacity or flows attributed to the provision of transmission services for cross-system network use at all exit points.

- 44 There were no uniform transmission services. Entry bookings enabled gas to reach the VTP and increased liquidity. Exit bookings at cross-border interconnection points enabled gas to be withdrawn from one market area into another market area for it then to be traded at the VTP in the second market area. Exit bookings to end users and downstream network operators ultimately included the option to use intra-system supply infrastructure.
- 45 Exit bookings at cross-border interconnection points could therefore no longer contribute to the liquidity of the VTP and differed from other bookings in this respect. In addition, gas was withdrawn from the national balancing system, unlike with exit bookings at intra-system points. Furthermore, the use of exit FZK for transit flows and storage facilities had not been taken into account when determining the technical capacity framework of the joint Trading Hub Europe market area according to section 8(2) in conjunction with section 9 of the Gas Network Access Ordinance (GasNZV).
- 46 Contrary to the ruling chamber's statements, there was no basis to assume that all bookings were equal. Because of the different markets, there was no reason to want to create a level playing field in this case.

(5) Volume risks and trade distortions

- 47 The envisaged uniform postage stamp reference price methodology led to volume risks and distorted cross-border trade. Tariffs at cross-border interconnection points had become higher and charges for domestic offtake had become lower. Importers and transit users used comparatively cost-effective transport paths and then needed to cross-subsidise intra-system network use, which was less cost-effective. The significant tariff increases for gas transit flows led to a distortion in the gas markets in other European countries.
- 48 Cross-subsidising intra-system network use to the detriment of cross-system network use triggered the volume risk that was to be prevented. Because of the tariff increases, transit flows through Germany could be shifted to other routes. The revenue losses would then have to be borne by the captive intra-system network users. This could trigger a tariff spiral with a continually increasing volume risk.
- 49 Following introduction of the new tariff system, GASCADE Gastransport GmbH capacity at cross-border interconnection points amounting to just under one third of the operator's revenue cap had been cancelled. Subsequent bookings had been made for only a much smaller volume. Gazprom export LLC had shifted capacity from Poland to Ukraine.
- 50 The location spread to the Austrian Central European Gas Hub (CEGH) VTP had fallen to a level that no longer enabled economically efficient trading. This showed that the traders' market now

viewed the German market areas as a procurement source that was increasingly much less attractive for neighbouring markets.

(6) Entry-exit split

51 The lack of cost-reflectivity was reinforced by the capacity-based entry-exit split because there was no pre-defined cost-reflective allocation of costs to the entry and exit side.

c) The function-specific postage stamp reference price methodology

52 The companies proposing the function-specific postage stamp essentially supported their proposal with the reasons summarised below. Other companies were also in favour of the method. The French regulatory authority also stated its support for the approach.

(1) Compatibility of the function-specific postage stamp with Regulation (EU) 2017/460

53 The function-specific postage stamp corresponded to the valuations in Regulation (EU) 2017/460, namely the significance of exit bookings (at cross-border interconnection points and storage facilities on the one hand and at points to end users and downstream network operators on the other hand) and the dual function of entry capacity as serving both intra-system and cross-system network use.

54 Since entry capacity at cross-border interconnection points was used to import gas volumes into the market area for intra-system supply as well as to import gas volumes for transport to other entry-exit systems, intra-system network use should share the costs of cross-system network elements accordingly. The exit bookings, however, could be clearly split between intra-system and cross-system network use as defined in Article 3 sentence 2 points 8 and 9 of Regulation (EU) 2017/460.

(2) Allocation to cross-system and intra-system network use

55 The proposed function-specific postage stamp enabled appropriate and cost-reflective allocation of the heterogeneous pipeline structures in Germany to the network user groups and enabled undue cross-subsidisation between cross-system and intra-system network use to be avoided.

56 The approach enabled cross-operator reconstruction of the network with a cross-system function that was used for both imports and transit flows in contrast to the network with an intra-system function that was primarily used for intra-system supply.

57 With respect to the allocation of network costs, different degrees of detail were conceivable – from no separation at all to the specific separation of direct and common costs by direct allocation or using accurate keys. Here, there was a basic conflict between accuracy and administrative effort.

- 58 In addition to allocating network components using technical parameters (for one transmission system operator as an example), it was also possible to directly allocate just under 80% of the costs. This included operative costs. In the case of pure capital costs, it was even possible to allocate 91% of the costs.
- 59 In this context, the main aspects of business cost accounting – from cost category accounting, through cost centre accounting to cost unit accounting – were illustrated.
- 60 Network costs could be allocated to the functions of cross-system and intra-system network use using various criteria while respecting the principle of proportionality. The costs could be allocated to the network functions according to functional relevance, using indicators or using relevant common cost keys. In the case of allocation according to functional relevance, the assumption is made that pipelines, compressors or gas pressure regulating and metering stations, for example, clearly and solely serve one network function and can be allocated to this function. In the case of allocation using indicators, the assumption is made that pipelines with a diameter > 700 mm can be allocated per se to cross-system network use. In this case, operating costs would be allocated on the basis of the associated pipelines.
- 61 An assessment is then made of the extent to which network assets, capital costs and operating costs can be allocated directly or using a common cost key. With respect to network assets, the view is that natural gas compressors and pipelines/house connection pipes can be allocated directly, while general assets, gas tanks and measuring, regulating and metering stations would need to be allocated partly directly and partly using a common cost key. Telecontrol systems could only be allocated using a key.
- 62 With respect to the components of the expected return on equity, operating assets I, operating capital I and imputed trade tax could be allocated directly, while operating assets II, operating capital II and interest on borrowings would need to be allocated partly directly and partly using a common cost key. Non-interest-bearing liabilities would, however, only be able to be allocated using a key.
- 63 With respect to the operating costs, the view is that the expenses for raw materials and supplies, expenses for services received and other business taxes could be allocated directly. Personnel costs, other operating expenses and cost-reducing revenues would, however, again need to be allocated partly directly and partly using a common cost key.
- 64 As far as requirements on the (common cost) key to be used were concerned, it was said that a high degree of accuracy was needed. Possible keys could be residual values of the allocable assets, gas pipeline purchase/production costs, indicators such as network length or full-time equivalents, and expert estimates or arbitrary splits.

65 In the specific case of GASCADE Gastransport GmbH, 91% of capital costs and 68% of operating costs could be allocated directly on the basis of the above assumptions. Similar results were also anticipated for other transmission system operators.

(3) Categorisation of storage facilities and gas-fired power plants

66 A number of companies called for gas-fired power plants and storage facilities to be categorised under cross-system network use because of their systemic relevance, if necessary regardless of how they were connected.

(4) Transparency

67 The method was sufficiently transparent, in particular in light of the criterion of capacity weighted distance.

(5) Cost-orientation and complexity

68 The method reflected the cost differences between large-volume pipelines at the highest pressure level and ramified, small-volume pipelines for nationwide supply. This would enable better replication of the actual costs and enable network users to base their business activities on the actual network costs, which would improve allocative efficiency.

69 The objection that the German transport networks were so complex that it was not possible to allocate costs accurately was indeed justified. However, the aim was to use a reference price methodology that was merely as accurate as reasonably possible. The function-specific postage stamp pursued this aim of achieving a viable, proportionate, understandable and practicable differentiation of tariffs in light of the complexity.

(6) Non-discrimination and cross-subsidisation

70 The method also created a level playing field at the right point, namely on the entry side and thus for access to the VTP, which was always priced identically. This enabled appropriate source competition and also promoted trading and liquidity at the VTP. Identical pricing on the exit side, however, was neither necessary nor permissible.

71 The function-specific postage stamp did not lead to cross-subsidisation of domestic shippers through international shippers. Because of the cost structure, however, the uniform postage stamp led to such cross-subsidisation to the detriment of international shippers.

(7) Volume risk

- 72 Network users' low price elasticity or price inelasticity could not be used as an argument against the volume risk because at least gas transit flows over longer distances could be routed on different paths with different tariffs.
- 73 The argument put forward in connection with the volume risk that there were no actual possibilities of switching to alternative routes was not expedient. If this were true, the volume risk would indeed be minimised. However, this would be in breach of European competition law because dominant companies would be imposing prohibited price components on captive customers.
- 74 Because of the increasing importance of LNG transports, such alternative pipeline routes were not a decisive factor.

(8) Objections to the function-specific postage stamp in the consultation draft

- 75 In the consultation draft the assumption was made that the fundamental problem, that in an integrated market area transport services were also performed using other transmission system operators' systems, was not solved with the function-specific postage stamp. This was not correct because the proportions of the revenue caps of all transmission system operators were added together for the purposes of cost allocation and assignment to the network with a cross-system function. This therefore produced the relevant function-specific proportions of the revenue caps, including the costs for services provided in cooperation.
- 76 Network elements with an intra-system function would not provide any relevant service for network elements with a cross-system function. Rather, network elements with a cross-system function would provide compression that would benefit networks downstream in terms of flow mechanics.
- 77 Moreover, the supply of gas to downstream networks and not just the offtake of gas should be priced. It was indeed true that the offtake of gas led to an increase in entry capacity and the considerable offtakes to distribution networks via interconnection points for internal orders led to an increase in entry capacity at all points of the entry-exit system. Nevertheless, the costs of the transmission system should be passed on because of the use of upstream networks as referred to in section 11(2) para 4 of the Incentive Regulation Ordinance (ARegV).
- 78 The criticism of the blanket method of categorising network elements was not justified. Even the rough method based on pipeline diameters produced a clearly discernible, technically interconnected, cross-operator network that enabled cross-system network use. In addition, a reference price methodology should be based on viable assumptions. Furthermore, individual assessments could potentially be made. Finally, as stated it was also possible to allocate a large part of the costs directly, even if this was not necessary.

79 It was indeed true that establishing the methodology would initially involve some work, the scale of which depended on the degree of accuracy. Annual data collection and classification of the cost components was not necessary, however. Nor was the methodology more susceptible to error than the capacity weighted distance. The function-specific postage stamp was also a postage stamp method with a high error tolerance.

d) Criticism of the function-specific postage stamp

80 The proposed function-specific postage stamp was criticised by various market participants for several reasons as set out below.

81 The function-specific postage stamp reference price methodology led not to greater cost-reflectivity but to undue cross-subsidisation to the detriment of intra-system network use. The method took into account neither the basic principle of the entry-exit system, according to which equal gas services were to be priced identically, nor the high degree of cooperation between transmission system operators, which enabled all network users' transport requests to be met, nor the decoupling of capacity bookings and physical transport and the associated inability to allocate transport costs to a function based on particular infrastructures, nor the mutual support and interdependence between cross-system and intra-system network use.

82 Joint application of the uniform postage stamp by all transmission system operators in a market area was essential in the interests of a level playing field. Exceptions would only be justified if specific costs could be allocated to the cost-causing network users in a way that was objectively understandable and as comprehensive as possible. Otherwise, individual interest groups would be given preferential treatment over others in the sense of cherry-picking. Both the original expert opinion from the REGENT 2020 proceedings on the postage stamp per type of network point and the follow-on expert opinion in the current proceedings failed to achieve this neutral aim and did not provide a transparently derived and verifiable improvement in cost-reflectivity. Rather, these expert opinions merely reflected individual interests that sought to redistribute costs to the detriment of intra-system network use on the basis of one-sided, isolated assumptions.

83 Cost-reflectivity should not be declared the overriding aim when determining the reference price methodology. This would negate the regulatory authorities' scope of assessment and discretion. The wording alone meant that cost-reflectivity merely had to be taken into account. Against the background of the complexity of the transmission systems, the legislature acknowledged that full cost-reflectivity was an illusion. This was all the more true because of the entry-exit system and the tradability of volumes at the VTP.

84 The benchmarking process had shown that identifying appropriate cost drivers was by no means trivial. Furthermore, cost drivers had to be assigned to individual network usage relationships. Ideally, a reference price methodology would indeed be cost-reflective but it would then no longer

be understandable and transparent for network users and would involve considerable administrative effort.

85 This had also been acknowledged by the legislature. It was therefore sufficient if a reference price methodology used "specific cost drivers" (recital 3 of Regulation (EU) 2017/460). The capacity weighted distance reference price methodology set out in the regulation only used distance as a cost driver and still met the requirements of the regulation, although there were other cost drivers.

86 The comparison made in the expert opinion with tariff regulations in France and Italy was unproductive. It only looked at the separation of functions, which roughly corresponded to the split in Germany between transmission system operators and distribution system operators. The expert opinion did not include a comparative analysis with typical transit countries.

87 The main points made in the expert opinion on, for instance, inefficient network expansion due to wrong price signals, lack of competition, restricted liquidity or distortion of cross-border trade were speculative. The same applied to the claim that it was possible to circumvent the German market area.

(1) Distinction between intra-system and cross-system network use

88 Regulation (EU) 2017/460 did not provide for a distinction between intra-system and cross-system functions with respect to costs. A distinction was only made with respect to network use and revenues.

89 The technical criteria used in the expert opinion could apply as common indicators for classifying transmission systems. However, the expert opinion failed to comprehensibly establish a link to the necessity of adapting the tariff system. Compressor capacity and pipeline diameter were both relevant to transport tasks. However, they were both included in the cost examination and allocated in the uniform postage stamp model on the basis of booked capacity as a neutral key.

90 The approach in the expert opinion failed to recognise that it was necessary in this case to look not at efficiency from an individual transmission system operator's perspective but at the supply of services as a whole by all transmission system operators in the market area.

91 Tariff differentiation based on keys that reflected the original structures of the previous operator-specific market areas was not feasible because it would render the central idea of market area access independent of the transport path absurd.

92 The expert opinion merely showed that different reference price methodologies led to different cost attribution. However, there was no proof that the function-specific postage stamp was actually more cost-reflective. It was also possible to conclude from the submission that in the past individual transmission system operators had not borne a reasonable share of the costs for operation of the market areas as a whole.

- 93 The difference in cost intensity between intra-system and cross-system network use was much smaller than presented in the expert opinion. First, two separate infrastructures for different types of transport did not exist. Rather, intra-system network use contributed significantly to generating economies of scale in the system as a whole. Even pipelines used purely for intra-system transport stabilised and relieved the overall system. It was precisely due to the meshed structure that transit pipelines did not need to be used along their full length but were relieved by offtakes at intermediate points. One example was the offtake of gas at an intermediate point on the North European Natural Gas Pipeline (NEL) into the ONTRAS Gastransport GmbH network. This made it possible to offer additional entry capacity into the market area, for which a compressor would otherwise be needed.
- 94 The function-specific postage stamp reference price methodology was not more cost-reflective than a uniform postage stamp because it was based solely on types of network point and not on the specific costs, for instance of an exit point. A method that was actually cost-reflective would also need to allow intra-system network users located near entry points to pay lower tariffs. However, because of the much smaller degree of transparency in particular with respect to the allocation of fixed assets and other costs, which was associated with considerable ambiguities, the method actually needed to be more cost-reflective.
- 95 The technical assumptions made in the DNV GL expert opinion with respect to differentiating between cross-system and intra-system network use were questionable. The classification failed in the case of bayernets GmbH, since the operator's customers had not benefited from a uniform postage stamp. On the contrary, bayernets GmbH was one of the biggest net contributors to the system.

(2) Counter-example of the NEL

- 96 The fact that the results are not correct can be seen more clearly from the example of the NEL. The classification in the expert opinion to mainly cross-system network use based on technical data or indicators was not correct. Furthermore, intra-system network use had positive effects on cross-system network use in this case. The actual data on volumes for 2019 showed that – contrary to the assumptions made in the expert opinion – the pipeline mainly had an intra-system function. Around 62% of the gas input at the Greifswald entry point was for regional distribution, or rather 51% if the storage facilities were (appropriately) classified as having solely a cross-system function. This disproves the basic assumption in the expert opinion that pipelines with a large diameter tend to have a cross-system function.
- 97 In addition, at the halfway point of the NEL, gas is withdrawn to local consumption areas. It was not possible to understand why exit points to the Netherlands that were farther away should be priced at comparatively lower tariffs.

(3) Counter-example of a downstream distribution system operator

98 The example presented at the workshop of a downstream distribution system operator connected to the transmission system immediately near a cross-border interconnection point is an example of the incorrect approach taken in the expert opinion to mark up intra-system network use.

(4) Links between intra-system and cross-system network use

99 The assumption was not correct that cross-system network use did not benefit from intra-system network use. The transmission systems had been dimensioned deliberately to create mutual cost advantages. Offtakes at intermediate points that increased entry capacity had deliberately been sought and factored in. This also benefited cross-system network use. The volumes from the additional entry capacity did not need to flow along the whole length of the transport system. Offtakes at intermediate points relieved the part of the pipeline downstream in terms of flow mechanics. Such large amounts of entry capacity were not possible in a pipeline exclusively used for transit. This principle had also been applied to the NEL with corresponding offtakes at intermediate points. The approach in the expert opinion to allocate the supposed intra-system costs solely to intra-system network use was therefore not correct. The assumption that there was such a thing as a "virtual transit tunnel" that should be priced solely with separate costs did not correspond to actual network use and the design of networks taking into account the interaction between intra-system and cross-system network use.

100 In addition, the function-specific postage stamp reference price methodology did not take account of the fact that intra-system network use only used a proportion of a notional overarching network. Furthermore, this proportion depended on the actual flow scenario. Usage proportions varied, depending on whether mainly Norwegian or mainly Russian gas was fed in. This volatility justified much more the use of a uniform postage stamp.

(5) Categorisation of storage facilities and gas-fired power plants

101 It could not be argued that gas storage facilities and gas-fired power plants should be blanket-categorised under cross-system network use because they provided system services. Storage facilities could also serve to safeguard domestic consumption. The example showed that blanket categorisation was not appropriate. With respect to gas-fired power plants, attempts were clearly being made in some cases to advance individual interests without an objective reason.

(6) Cost distribution between intra-system and cross-system network use

102 The cost distribution presented by the ruling chamber at the workshop also showed that with the uniform postage stamp methodology the costs assigned to intra-system network users were already twice as high as the costs assigned to cross-system network users even though capacity

requirements were comparably high. The assignment of higher costs to users within Germany showed that the uniform postage stamp methodology also took more than sufficient account of any higher costs for transiting different pressure ranges through to the distribution networks.

- 103 The concern that the tariffs for cross-system network users would be too high was unjustified: only 35% (with the uniform postage stamp methodology) or 38% (with the capacity weighted distance methodology) of the total costs were assigned to cross-system network use although cross-system use accounted for 50% of total gas transport.

(7) Comparison with capacity weighted distance

- 104 The results of the capacity weighted distance reference price methodology indicated that the function-specific postage stamp reference price methodology led to non cost-reflective allocation of costs. Taking account of distance led to higher tariffs at cross-border interconnection points, while the function-specific postage stamp produced the opposite result.

(8) Significance of the entry-exit system

- 105 The division of costs into transport and distribution as called for in the expert opinion – with gas being transported "past the market area" as it were – was also contrary to the principles set out in legislation of non-discriminatory transport independent of the transport path through an entry-exit zone. The latest expert opinion indeed mentioned the principle of the entry-exit system but did not take it into account at any point.

(9) Non-discrimination and cross-subsidisation

- 106 The proposed alternative model was not better than a uniform postage stamp. For instance, the uniform postage stamp methodology led to cross-subsidisation of cross-system use through intra-system use. This follows from the cost allocation assessment in accordance with Article 5 of Regulation (EU) 2017/460 and the higher vacancy rates in the case of cross-system network use. The differentiation of transmission systems according to network functions using technical parameters was arbitrary and not verifiable. The alleged distorting effects would not be resolved but would be reinforced arbitrarily and one-sidedly in favour of only a few transmission system operators.
- 107 The function-specific postage stamp reference price methodology led to undue cross-subsidisation to the detriment of intra-system network use. This was evident in cases where exit points to end users and downstream networks were near borders or cross-border interconnection points. There was no objective reason to price these offtakes at a higher tariff, especially because the same infrastructure as for the corresponding cross-border interconnection point was used and the same gas service was provided. This was clear at the border to Denmark, by way of example.

(10) Volume risk

- 108 No reliable indicators were presented to support the possibility of shifting capacity to alternative routes as put forward in the expert opinion. The loss of individual long-term bookings could be due to a variety of reasons. In practice, no volume risk had arisen from higher tariffs at cross-border interconnection points.
- 109 The alleged alternative transport routes were not comprehensible. Capacity here was already restricted, which made shifting capacity seem unrealistic. In addition, the routes were not economically efficient because of Germany's central location. The alternative routes would involve transiting more countries, which in turn would always involve cumulative tariffs.
- 110 The fact also had to be taken into account when assessing the volume risk that the ongoing decarbonisation could lead to consumers within Germany also moving away from gas as a result of excessive network charges. This could also trigger a tariff spiral with the loss of long-term, steady income sources and an increase in tariffs for cross-system network use as well.

(11) Work involved in allocation

- 111 The view presented by DNV GL that allocating costs to cross-system and intra-system network use would be possible with a reasonable amount of additional work was not correct. First, details of the procedure and criteria would have to be laid down by the Bundesnetzagentur and then implemented by the transmission system operators. The cost allocation would then need to be checked by the Bundesnetzagentur. The efficiency benchmarking had shown that such cost allocation issues could not be readily resolved by simply combining parameters because of the heterogeneity of the transmission system operators. Rather, a long dispute between transmission system operators was to be expected because of the significant impact on network charges.

(12) Further analyses

- 112 A number of market participants were in favour of further analyses of the function-specific postage stamp:
- 113 The criteria for differentiating between intra-system and cross-system network use had to be examined in more detail and expanded. ACER also recommended examining the existence of regional systems and quantifying the costs associated with intra-system network use. The analysis should be made using the most important cost drivers such as booked and/or technical capacity, distance, diameter and pressure. Only then would it be possible to evaluate whether this method was more cost-reflective than the uniform postage stamp.
- 114 In doing so, it was also necessary to take account of the correlation between entry tariffs and market liquidity. The impact on trading needed to be examined more closely when assessing

reference price methodologies. This included, for example, additional cross-border transports as a cost unit and the impact of volumes traded in the Trading Hub Europe market area.

e) Entry-exit split

- 115 A number of market participants presented the view that the uniform postage stamp indeed facilitated market access and cross-border trade compared with the distance-dependent model. However, a further decrease in entry tariffs would be desirable to strengthen competition and increase the liquidity of the German gas market.

f) Tariff exemption for biogas among others

- 116 Several respondents stated that the input privilege based on section 118 of the Energy Industry Act (EnWG) should be worded in technology-neutral terms and tied to transparent criteria. Here, an effective decrease in carbon dioxide should be guaranteed.

g) Joint application of the reference price methodology

- 117 As in previous proceedings, comments were received relating to the question (not covered in this determination) as to whether the reference price methodology should be applied jointly or separately:
- 118 Joint application of the reference price methodology as proposed in the REGENT 2021 determination was particularly inappropriate und particularly illogical. It would maximise the lack of cost-reflectivity. Separate application merely required the introduction of an effective compensation mechanism. There were no insurmountable obstacles to such a compensation mechanism. The supplementary expert opinion from DNV GL pointed to several possibilities in the gas sector for an appropriate compensation mechanism. There were still also concerns under anti-trust law about the uniform postage stamp reference price methodology because residual competition between transmission system operators would be eliminated. In addition, there had been no reasoned examination of the question of whether the reference price methodology should be applied jointly or separately.
- 119 However, comments were also received that were explicitly in favour of the joint application of the reference price methodology:
- 120 Only through the joint application of the reference price methodology would proper conformity between the network access system and the tariff system be achieved. As the transmission system operators would anyway be obliged to offer full cooperation, this must also extend to tariffication.

h) Regional networks

- 121 At the workshop held on 5 May 2020, ACER suggested examining whether so-called regional networks were part of the transmission system operators' networks. Regional networks were high-pressure networks that were used to supply domestic customers only and from which gas could not flow to cross-border interconnection points. This suggestion was supported by a number of market participants:
- 122 The Bundesnetzagentur failed to recognise that the reference price methodology included network elements that were not transmission lines within the meaning of the relevant European regulations. It was necessary to examine whether the whole network should be classified as a transmission system or whether it included regional networks with costs that needed to be allocated differently. It was possible to separate off these regional systems by forming combined system operators.
- 123 This view was essentially opposed by other market participants:
- 124 ACER's suggestion to examine regional networks was to be rejected. The European system only recognised transmission system operators and distribution system operators, and not regional system operators. There was therefore no legal provision for classifying regional networks. In the understanding of the European Commission, the operation of a high-pressure pipeline was sufficient for classification as a transmission system operator. It was also not possible to divide the German transmission system operators into new transmission systems and regional networks because of the networks' meshed and integrated structure. This was more complex than in France or Italy. Economies of scale from offtakes at intermediate points should not be ascribed solely to cross-system network use.
- 125 Both functions of transmission systems – intra-system and cross-system supply – were inextricably linked because of the complex, meshed structure. The distinction should not be based solely on the question of international transport. If the future single German market area were to be divided into several market areas, which would still be large by European comparison, the question of regional network use would not even arise.
- 126 The distinction between transmission systems and distribution systems had to be based on an overall assessment of functions. It was sufficient for a network to have mainly high-pressure pipelines and not be primarily used for local distribution for it to be classified as a transmission system. This was clear from the relevant definitions in Article 2(1) point 1 of Regulation (EC) 715/2009 and Article 2 points 3 and 5 of Directive 2009/73/EC. The distinction between transmission and distribution systems was not based on pipeline diameter, pipeline pressure or transport distance. This was appropriate because the function of a network and the significance for the internal market (and not solely technical criteria) were key to the question of whether the stricter and more extensive EU legal regulations for transmission systems should apply.

- 127 A high-pressure pipeline could be classified as belonging to a distribution system by way of exception only if it were "primarily used in the context of local distribution of natural gas, with a view to its delivery to customers" (Article 2(1) point 1 of Regulation (EC) No 715/2009). Such a high-pressure pipeline would have to be used atypically mainly for local distribution. A distinction should be made between this and regional distribution, which was one step higher than local distribution. A high-pressure pipeline was therefore still part of a transmission system even if it was partly used for local distribution. This was implied by the word "primarily". Only if a system were used predominantly for local distribution would it no longer be of significance for the internal market and thus no longer be classified as a transmission system with the accompanying strict regulation.
- 128 High-pressure networks used for regional distribution were indeed a borderline case. However, German legislation classified these networks under distribution systems by making the existence of cross-border or market area interconnection points a prerequisite for classification as a transmission system (section 3 para 5 EnWG). These bookable points indicated an additional, supraregional function. In turn, this indication would only cease to apply if other, solely downstream networks were supplied through these cross-border interconnection points (section 3 para 37 EnWG).

2. Discounts at storage facilities according to Article 26(1)(a)(ii) of Regulation (EU) 2017/460 (operative part 2)

- 129 A number of market participants welcomed the discount at storage facilities proposed in the consultation document. The continued discount of 75% was a good compromise between the conflicting objectives of largely avoiding double-charging with network charges on the one hand and storage facility users bearing a reasonable share of network costs on the other.
- 130 Other market participants were in favour of a higher discount. Even a discount of 75% led to a distortion compared with other flexible products such as imports via LNG terminals. The discount should be increased to 100%. One market participant called for a discount of 100% should storage facilities not be categorised under cross-system network use with the function-specific postage stamp methodology, in order to reflect the contribution made by storage facilities to security of supply and flexibility.
- 131 Another group of market participants criticised the discount proposed in the consultation document. The level of the discount had to take account of the significant investment costs of connecting storage facilities to the network. Furthermore, a discount was also envisaged for temperature-dependent capacity at storage facilities. Network expansion at storage facilities was not covered by long-term capacity bookings. The capacity expansion entitlements at storage facilities in accordance with sections 38 and 39 GasNZV would cause additional costs. A more

extensive discount higher than 75% was therefore not cost-reflective. Here, cross-subsidisation to the detriment of other network users also had to be taken into account.

132 With respect to storage facilities connected to more than one market area, it was said that the discounting exceptions should only apply if storage facilities were not actually used for cross-border flows. This should depend not on use in the entire booking period but on whether or not there were cross-border flows on the day when the capacity was actually used. Another market participant was in favour of re-introducing the rebooking model from the BEATE determination (BK9-14/608).

3. Conditional firm capacity products according to Article 4(2) of Regulation (EU) 2017/460 (operative part 3)

a) Proposal concerning the discount for DZK

133 In the consultation, nearly all the transmission system operators proposed (also to appease the overall situation) that the uniform postage stamp should be supplemented with an increased discount for DZK. DZK allowed transport between pre-defined entry and exit points on a firm basis as well as interruptible access to other points, including the VTP.

134 The current pricing placed DZK between FZK and uFZK. This was based on the notion that DZK was a higher quality product compared with uFZK. However, this did not take account of the fact that DZK was very largely used within the allocation restrictions and shippers did not make other nominations in the knowledge that transport was impossible for network reasons. Only when shippers used the DZK outside the allocation restrictions would there be scope for a relevant discount because of the subsequent interruption to capacity.

135 The current criterion for discounting DZK was inappropriate and economically inefficient. The low discount created an incentive to obtain firm allocability to all points in a market area for a mere surcharge of just under 10% instead of firm allocability to just a few exit points. This was tied to inefficient capacity expansion. This was why there had recently been frequent requests to convert existing DZK into FZK.

136 Rather, the discount for DZK had to be set taking appropriate consideration of network or market factors. With respect to network factors, the discount could be based on the avoided network expansion costs compared with FZK. With respect to market factors, the discount had to adequately reflect the disadvantages from the lack of firm access in the supply or sales market to the VTP. The discount should be the subject of market consultation.

137 A discount should be set that was applicable to all points, as for storage facilities. Point-specific or product-specific discounts for DZK would be contrary to transparent and simple network access.

- 138 The higher discount should, however, only be granted for transport within the allocation restrictions. Transport outside the allocation restrictions should be charged ex post using a mark-up with the tariffs for uFZK. The distinction in use could be guaranteed through allocation to a balancing or subbalancing group account.
- 139 A discount based on network factors would be most expedient taking into account market area-wide considerations. The example of EUGAL indicated a discount of 30% to 40% based on the cost estimate for converting existing DZK into FZK.
- 140 Market area-wide considerations supported this approach. An analysis of network planning costs was not readily possible given the variety of DZK products offered by the different transmission system operators. Instead, the conversion of DZK into FZK should be based on the avoided expansion costs. It was possible to determine relevant capacity and costs using data from the network development plan (NDP) 2020 currently under consultation. For 2021, the amount of bookable DZK assigned to the entry side was 161 GW, of which 117 GW had been booked. The amount of bookable capacity assigned to the exit side was 107 GW, of which 59 GW had been booked. The network development plan 2013 had put the expansion costs for converting booked DZK into FZK at €59m per GW. This figure was still used even though it did not relate to a single German market area and the expansion costs had certainly increased since then. The estimated costs on the entry side would therefore amount to €6.9bn. As in the network development plan 2013, the assumption was also made that converting capacity on the entry side implied the provision of corresponding exit capacity, although additional expansion measures would actually also be needed on the exit side. However, this and the opposing cost-reducing possibility of shifting entry FZK should not be taken into account. The estimated expansion costs of €6.9bn would lead to annual additional costs of at least €500m.
- 141 Expansion could not be replaced by alternative, MBIs. These instruments had been developed for another purpose, namely to eliminate congestion between the two existing market areas and not congestion within a market area. In addition, these instruments presupposed a liquid market, which was not the case for points at which DZK was marketed. Furthermore, the MBIs were designed for use during a limited number of hours a year, while DZK was to be converted throughout the year.
- 142 In this context, the MBIs corresponded to a flow commitment, so the same allocation restriction as for DZK would apply for the shipper. Procuring such flow commitments carried an incalculable cost risk.
- 143 On the basis of indicative figures from the procurement of flow commitments by ONTRAS Gastransport GmbH, annual costs would amount to around €280m, although this was based on competitive pricing and limited demand.

- 144 Compared with the annual costs of converting DZK into FZK amounting to more than €500m in the case of network expansion and around €280m in the case of flow commitments, a discount of 40% for DZK would result in a saving of €230m. A higher discount for DZK, which would lead to an increase in the reference price, would therefore result in considerably lower additional costs for the other network users in comparison with network expansion. The additional costs in the case of flow commitments would lead to an increase in the prices for all products. This was comparable with the additional costs for the other products resulting from a higher discount of 40% for DZK. However, flow commitments carried a considerable cost risk, while a higher discount for DZK could be taken into account simply in the tariff calculation.
- 145 A discount for DZK higher than 40% was not appropriate, however, as a significant share of the costs for converting DZK into FZK, including in the context of incremental capacity projects, should be assigned to the shippers who would benefit.
- 146 A number of market participants expanded on the proposal concerning domestic points. DZK products were also used by end users and gas-fired power plants. There was no firm access to the VTP here because of disproportionate expansion costs. These products and the climate targets needed to be taken into account when designing the discount scheme. Gas infrastructure was a fundamental element for sector coupling and achieving the climate targets. The importance of gas-fired power plants for these objectives was also emphasised in the scenario framework for the gas network development plan 2020-2030 confirmed by the Bundesnetzagentur. The scenario framework provided for new gas-fired power plants with 15 GW to be supplied using DZK.
- 147 Here, the relevant network users would always need to book the entry point assigned to the exit DZK in order to be able to secure firm supply. These additional costs should be credited on the exit side in the subsequent year in the form of a further discount. It was appropriate in the case of an allocation of DZK points that the sum of exit DZK and the compensatory entry point should not be higher than supply from the VTP.
- 148 Only a few market participants commented on the specific level of the discount. One market participant stated that a higher discount should be given for DZK products to enable products to be offered in line with demand. The higher degree of network usage would lead to lower charges. However, the discount should not be more than double the discount for uFZK.

b) Criticism of the proposed higher discount for DZK

- 149 Other market participants were critical of the proposal. The DZK product essentially represented a type of capacity that should, by definition, not exist in an entry-exit system. In the interests of liquid markets and competition, as little DZK as possible should be awarded overall. The tariff system must not create an incentive for not using interruptible access to the VTP. Promoting point-

to-point connections was not in line with the European objectives, which aimed at promoting trading point liquidity.

- 150 There was no evidence that there was actually a higher risk of interruption at the relevant points.
- 151 Viewed objectively, a DZK product was always a higher quality product compared with a uFZK product and was therefore also to be priced higher. Customers who are solely transit customers would also benefit from trading possibilities at the VTP. In addition, if access to the VTP were used, capacity would need to be charged ex post with the tariffs for uFZK for the whole duration of the capacity in order to limit market distortions. Discounting for DZK must not affect transport using FZK because this would lead to an artificial price increase at the VTP and a decrease in liquidity.
- 152 Another aspect that spoke against a higher discount for DZK products was the specified order of interruptions to capacity. The order was such that interruptions to the interruptible element of a DZK product were made after interruptions to uFZK. This also applied to interruptible capacity obtained at short notice that was even more expensive because of higher duration factors.
- 153 The first REGENT determination had already led to an increase of 29% in the tariffs of bayernets GmbH. Further increases in tariffs from higher discounts for DZK – of around 9% given a discount of 40% – were to be assessed critically.
- 154 In addition, the basis for deriving the higher discount was questionable. Basing the discount on the costs of the new EUGAL pipeline did not take account of the fact that DZK was also offered for existing pipelines. Here, it was unclear whether the discount should be determined using a notional new pipeline or the remaining depreciable amount. In addition, new pipelines were designed to offer a proportion of FZK as well as DZK. The approach also created an incentive to spin off new transmission system operators for new pipelines.
- 155 It was not possible to understand why the discount should be based on avoided network expansion costs. Modelling with lower expansion costs was the result of excluding free allocability and not the result of the frequency of use solely as a point-to-point connection. The lower network expansion costs should not depend on whether and how DZK was used.
- 156 Basing the discount on opportunity costs in portfolio optimisation was susceptible to discrimination and impractical because the costs depended heavily on the traders' individual portfolios.
- 157 Other market participants pointed to the inability to provide a well-founded response based on the current submission.

c) Benchmarking in accordance with Article 6(4)(a) of Regulation (EU) 2017/460

158 With respect to the changes to the benchmarking at the Burghausen network node proposed in the consultation document, various critical responses with partly different emphases were received from the market participants concerned:

159 The benchmarking should be continued because the situation regarding capacity had not changed. It was not clear why the benchmarking regulations in the draft decision had been modified although the circumstances were identical. The regulatory authority had a binding commitment with respect to the benchmarking. In addition, the REGENT-NCG decision did not provide for such a change to the regulations. It only provided for new calculations at the beginning of a new regulatory period to take account of new interest rates. In economic terms, the draft decision amounted to ordering the hypothetical direct line to be shut down.

160 The proposal not to take account of the Haidach storage facility or the possibility of procuring differences in volumes via the VTP (together with the fact that this would not adversely affect the reduced tariff for the whole duration of the capacity product) was not compatible with this binding commitment. The same applied to the possibility of taking account of a contractually longer duration of use in the calculations.

(1) Capacity on the Austrian side

161 Proof of availability of the required capacity on the Austrian side was not relevant to a hypothetical direct line. It should not be necessary to reserve hypothetical capacity for a hypothetical pipeline. Furthermore, it would be questionable in regulatory terms if capacity had to be kept free for a hypothetical pipeline. Moreover, proof was objectively impossible because of the changes in the framework conditions over time. In this respect, it was sufficient to rule out discounted access to the VTP.

162 Changes to the benchmarking regulations could essentially only take effect if an actual direct line were affected by the regulations.

(2) Inclusion of the Haidach storage facility

163 The benchmarking tariff with respect to Wacker Chemie AG should still enable supply via the Haidach storage facility. To date, gas had largely been supplied via the storage facility using gas volumes that were differentiated in balancing terms – either gas from Austria or undiscounted volumes that had been put into storage from the NCG VTP. The latter corresponded to cross-border flows to Austria. Contracts with the storage facility operators ensured that these gas volumes were differentiated in balancing terms from other discounted volumes that had been put into storage from the NCG market area.

- 164 It was necessary to use the storage facility for reasons of security of supply. It was not possible to ensure that the required capacity at the Überackern 2 cross-border interconnection point could always be acquired in the auctions. In addition, it was not possible for the cross-border interconnection point to remain available continuously in the event of maintenance. Given regular supply from the storage facility, undiscounted bookings for the exit point would need to be made in these cases. However, bookings were usually annual bookings, which would then need to be charged in full without a discount. In addition, the minimum trading volume of 1,000 kWh at CEGH in Austria always resulted in differences that could be taken into better account at the storage facility.
- 165 Depending on the extent of use of the storage facility, the lower degree of flexibility and the additional costs of withdrawing gas from storage at full tariff rates made using the storage facility uneconomic and endangered the security of supply of the systemically relevant gas-fired power plant at the location.
- 166 In addition, it would be technically possible to connect the direct line to the storage facility and the Austrian market area as with the storage facility as a petitioner. This should be taken into due account in the cost calculations.

(3) Project costs

- 167 The necessity to provide further and updated proof of the economic efficiency of the direct line was to be rejected. The possibility of continuing operation of the direct line assumed in 2019 was to be accepted. Proof of the possibility of constructing the pipeline had already been provided in the first benchmarking and should be updated. With respect to the applicable costs, only the interest rate for the capital cost annuity would need to be updated.
- 168 The updated estimates of the project costs for the pipelines showed that these direct lines remained realistic.
- 169 The final REGENT determination should re-include the possibility of extending the durations of use through binding booking commitments from the petitioners. One petitioner had already made use of this possibility in the past.
- 170 It was not reasonable to assume the highest costs for the hypothetical direct line at the Haidach storage facility. A depreciation period of four years to calculate the tariff in accordance with the benchmarking method was not reasonable. Gas pipelines had longer depreciation periods and transport contracts had longer terms.

(4) Discounting procedure

- 171 Under the new arrangement, the general tariff applied for the whole capacity booking and the whole duration if access to the VTP was used within the duration. Under the previous arrangement, this was only the case if and to the extent that access to the VTP was used. Even the smallest amounts or shortest durations would lead to application of the general tariff for the whole capacity booking. This would be fatal, since it was not possible to exactly control or forecast an end user's consumption. Deviations would need to be balanced via the storage facility or VTP.
- 172 The new arrangement in the draft decision should be corrected. Whether or not the VTP was used could not be checked before the end of the capacity duration. As a result, it would be necessary to charge the full tariff for a longer period and, if necessary, reimburse the tariff after the end of the capacity duration in line with the discount. The regulatory framework was not designed for such payment flows or distortions.
- 173 Up until now, non-use of the VTP had been demonstrated through special balancing group accounts. The proposal for the full tariff to be charged first and then reduced ex post was unreasonable. If just one nomination was inadvertently made for the VTP, there would be no reimbursement at all. The follow-ups would require a large amount of effort from the parties concerned.
- 174 It was not possible to accurately forecast end users' consumption anyway. A one-to-one nomination of the entry point was therefore not possible. If differences were balanced via the VTP, the whole capacity would need to be priced at the full tariff. A tolerance should be allowed for such cases. This could be mitigated by small-scale bookings, but this would involve an unnecessarily large amount of effort.
- 175 As a solution, customers should be given the possibility of declaring in advance that they would not use the VTP. They would then voluntarily use a balancing group without access to the VTP. In addition, a small tolerance should be allowed in connection with end users. Finally, capacity should be charged at shorter intervals (eg monthly) to prevent large accruals with the system operator.

(5) Miscellaneous

- 176 With respect to the Haidach storage facility, it needed to be clarified that undiscounted volumes put into the storage facility from the NCG market area could be fed to Austria using the benchmarking tariff.

4. Adjustments concerning the application of the reference price methodology to all entry and exit points in accordance with Article 6(4)(c) of Regulation (EU) 2017/460 (operative part 4)

177 The transmission system operators had initially unanimously proposed modifying the adjustment factor for the fourth quarter of 2021. However, this proposal was unanimously withdrawn in the course of the proceedings.

5. Transmission services and non-transmission services according to Article 26(1)(c)(ii) of Regulation (EU) 2017/460 (operative parts 5 to 8)

178 The respondents commenting on this aspect welcomed the continuation of the regulations as envisaged in the consultation document. Responses were also received concerning the relevant situation with distribution system operators, who are not covered by the REGENT 2021 determination.

6. Report on volume risk (operative part 10)

179 The respondents commenting on the reporting obligation for the volume risk took a positive view. The reports should be used to decide whether or not new determination proceedings should be opened.

7. Data collection for the year 2022 (operative part 11 of the consultation version)

180 The data collection obligation for the year 2022 was viewed critically. New consultation and determination of a reference price methodology and calculation and publication of tariffs required a period of at least seven months. The consultation process for REGENT 2022 would therefore need to start at the latest at the beginning of November 2020. The data submission deadline of 1 January 2021 was too late for this. In addition, the earliest the transmission system operators could start preparations was when the REGENT 2021 proceedings were completed in September 2020. The REGENT 2021 determination should not include any order with respect to preparations for a possible REGENT 2022. Rather, as with the INKA determination, a data collection obligation should be imposed if required. Here, a new reference price methodology could also be specified as the data collection basis.

8. Miscellaneous

181 Forecasted bookings for the individual entry and exit points were to be published for each hour to make it possible to check if inappropriate underestimates of bookings had been made. Furthermore, the distances between entry and exit points used to calculate the capacity weighted distance were to be published.

III. Further steps in the proceedings and response from ACER

- 182 With the decision of 22 May 2020, party 2) was summoned to the proceedings in response to its application of 6 April 2020. With the decision of 28 May 2020, party 3) was summoned to the proceedings in response to its application of 20 May 2020. With the decision of 18 June 2020, party 4) was summoned to the proceedings in response to its application of 4 June 2020.
- 183 The responses were published on the Bundesnetzagentur website on 18 June 2020 in a version from which any business and trade secrets had been removed. A summary of the responses in German was published on 19 June 2020 on the Bundesnetzagentur website and a summary in English on 2 July 2020.
- 184 On 18 June 2020, the Committee of representatives of the federal state regulatory authorities was given the opportunity to comment in accordance with section 60a(2) sentence 1 EnWG.
- 185 In June to July 2020, the ruling chamber collected further data on pipeline diameters and pressures at all entry and exit points from the transmission system operators or requested the data from the last efficiency benchmarking (valid as at 31 December 2015) to be updated and validated. Some transmission system operators also updated the booking forecasts for the single market area on the basis of new findings. A provisional analysis on the basis of provisional data was provided to ACER on 7 July 2020. In addition, the ruling chamber included the latest findings on the level of the forecasted revenue caps for 2021 in the calculations.
- 186 On 17 July 2020, ACER published its response in accordance with Article 27(2) and (3) of Regulation (EU) 2017/460.
- 187 ACER stated that it was unable to fully assess the reference price methodology against the criteria set out in Article 7 of Regulation (EU) 2017/460. According to the responses to the consultation, the transmission systems could include smaller pipelines that could be downstream networks (referred to as "regional networks"). Should these networks be mainly used by intra-system network users and have very different unit costs to the rest of the transmission assets, uniform pricing could turn out not to be cost-reflective. Neither this matter nor the possible differences in unit costs had been assessed. Such assessments should allow a conclusion to be made as to whether intra-system and cross-system network use have different underlying costs. The analysis provided to ACER by the Bundesnetzagentur on 7 July 2020 was in line with the recommendations made by ACER in previous responses, but could not be fully assessed by ACER for time reasons.
- 188 ACER concluded that the consultation document included all the required information as listed in Article 26(1) of Regulation (EU) 2017/460. However, it was not possible to assess the criteria of cost-reflectivity, prevention of cross-subsidisation and non-distortion of cross-border trade as referred to in Article 7(b), (c) and (e) of Regulation (EU) 2017/460 because of the possibility, as discussed, of different unit costs. At the same time, the consulted reference price methodology

was found to be compliant with the criteria of transparency, non-discrimination and prevention of volume risk as referred to in Article 7(a), (c) and (d) of Regulation (EU) 2017/460.

189 ACER recommended an assessment of regional networks with respect to unit costs. This assessment could be supported by the analysis submitted on 7 July 2020. The regional networks delineated in the assessment should be financed by domestic end-users, for instance by classifying the networks as distribution networks.

190 In parallel, ACER would carry out a process, involving the national regulatory authorities and the European Commission, to develop a definition of regional networks together with recommendations on how to deal with these networks. Such a common definition would promote a harmonised approach among the member states concerned.

191 In addition, ACER recommended the inclusion of further information in the final decision. The decision should include a description of the inter-transmission system operator services referred to in the consultation document and an explanation of how these services prevent the identification of the costs associated with cross-system and intra-system use. It should also include an explanation of how the market merger would lead to a further decoupling of transmission services and costs. Furthermore, it should specify the period during which the determination would be applicable or the conditions that would trigger new proceedings.

192 The entry privileges for biogas and power-to-gas were viewed critically by ACER.

IV. Miscellaneous

193 These determination proceedings do not cover the question of whether in derogation of Article 10(1) of Regulation (EU) 2017/460 the reference price methodology is to be applied separately, Article 10(2)(a) of Regulation (EU) 2017/460, which as a general principle according to Article 10(4) of Regulation (EU) 2017/460 would only be possible within a set time period anyway. No corresponding determination proceedings were initiated by the ruling chamber. The proceedings on the introduction of an effective compensation mechanism between the transmission system operators of the Germany-wide market area (BK9-19/607, "AMELIE 2021"), initiated in parallel, relate solely to the compensation mechanism to be established when the reference price methodology is applied jointly in accordance with Article 10(3) sentence 1 of Regulation (EU) 2017/460.

194 In connection with the previous decisions BK9-18/610-NCG and BK9-18/611-GP, the ruling chamber had already stated and recorded in a side letter that it had used its discretion to decide that no proceedings on the joint application of the reference price methodology would be opened. The ruling chamber updated these deliberations in parallel to these proceedings (BK9-19/610).

195 For further details, reference is made to the content of the file.

B.

196 Through this determination, in accordance with Article 27(4) of Regulation (EU) 2017/460 the Bundesnetzagentur is issuing a motivated decision on all points stated in Article 26(1) of Regulation (EU) 2017/460.

197 The decisions taken fall under the responsibility of the Bundesnetzagentur as provided for by section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentence 2 and sentence 3 EnWG in conjunction with Article 6(11) and Article 7(3) of Regulation (EC) 715/2009 in conjunction with Article 4(1), Article 4(2), Article 4(4), Article 6(4)(a) and (c), Article 27(4) sentence 1 and Article 27(5) of Regulation (EU) 2017/460 and section 29(1) EnWG in conjunction with section 32(1) para 11 ARegV in conjunction with section 28 sentence 1 para 3 ARegV. The responsibility of the ruling chamber ensues from section 59(1) sentence 1 EnWG.

I. Determination of a reference price methodology in accordance with Article 26(1)(a) of Regulation (EU) 2017/460 (operative part 1)

198 The decision pursuant to operative part 1 on the reference price methodology is based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentence 2 and sentence 3 EnWG in conjunction with Article 27(4) sentence 1 and Article 26(1)(a) of Regulation (EU) 2017/460.

199 Accordingly, it is necessary to establish a reference price methodology to be applied to the part of the transmission services revenue to be recovered from capacity-based transmission tariffs with the aim of deriving reference prices (Article 3 sentence 2 para 2 of Regulation (EU) 2017/460). The reference price is the price for a capacity product for firm capacity with a duration of one year (Article 3 sentence 2 para 1 of Regulation (EU) 2017/460). In principle, the transmission services revenue shall be recovered by capacity-based transmission tariffs (Article 4(3) sentence 1 of Regulation (EU) 2017/460).

1. Description of the reference price methodology according to Article 26(1)(a) of Regulation (EU) 2017/460

200 Article 26(1)(a) of Regulation (EU) 2017/460 stipulates that a description of the proposed reference methodology must be provided. This description is derived from the wording of operative part 1. In the case of contracted capacities it was explicitly clarified that only non-adjusted contracted capacities shall be relevant because, under the system set out in Regulation (EU) 2017/460, any higher or lower revenues resulting from multipliers and discounts are not part of the reference price methodology but must (in a second step) be taken into account as part of the rescaling according to Article 6(4)(c) of Regulation (EU) 2017/460.

2. Parameters for the reference price methodology according to Article 26(1)(a)(i) of Regulation (EU) 2017/460

201 According to Article 26(1)(a)(i)(1) and (2) of Regulation (EU) 2017/460, a description is required of the indicative information set out in Article 30(1)(a) of Regulation (EU) 2017/460, ie the parameters used in the reference price methodology relating to the technical characteristics of the transmission system.

a) Description of the capacity

202 If the uniform postage stamp method according to operative part 1 is applied, this description only comprises the forecasted contracted capacity at the entry and exit points and the associated assumptions (Article 30(1)(a)(ii) of Regulation (EU) 2017/460).

203 In order to fulfil this requirement the Bundesnetzagentur conducted a survey on the average contracted non-adjusted capacity forecasted for the calendar year 2021 at all entry and exit points. This included all network operators that were certified as transmission system operators or that were engaged in an ongoing certification process on account of their capacity as a transmission system operator at the time of the proceedings. In this context the ruling chamber, when drawing up the consultation version, did not concern itself with the question as to whether the merger of the two current market areas on 1 October 2021 will have repercussions for the status of individual transmission system operators. This appears to be possible in the case of Ferngas Netzgesellschaft mbH in particular, whose sole interconnection point is the Vitzeroda market area interconnection point, which will not exist after the merger. Were this state of affairs to lead to Ferngas Netzgesellschaft mbH no longer being considered a transmission system operator in future, the consequences for the matters addressed in this decision would be negligible. The significance of Ferngas Netzgesellschaft mbH within the German market area in terms of its economic weight and capacity is too small to affect the analyses conducted here to an extent that any consequences for the choice of most suitable reference price methodology for the market area would appear seriously possible. In addition, in the course of the administrative proceedings there were no specific indications that a different assessment should be made.

204 The ruling chamber has taken account of the exemption proceedings in accordance with section 28b EnWG that have now been concluded. In the proceedings, the gas interconnector Nord Stream was granted a derogation for the section of the pipeline located in German territory (including the German territorial sea) from the application of sections 8-10e and sections 20-28 EnWG with retroactive effect from 12 December 2019. The derogation is limited to a period of 20 years (operative parts 1 and 2 of decision BK7-19-108 of 20 May 2020). The application of Nord Stream 2 AG for derogation from regulation was, by contrast, rejected (operative part 1 of decision BK7-20-004 of 15 May 2020). However, this rejection does not have any consequences for the

indicative calculations within the framework of this decision either because the pipeline has yet to be completed.

- 205 The total of the reported capacities is shown in Annex 1. According to Article 26(1)(a)(i)(1) of Regulation (EU) 2017/460, justification for using this parameter must be provided. The justification is that the booked or ordered capacity in each case is a significant cost driver, which means that, according to Article 3 sentence 2 para 18 of Regulation (EU) 2017/460, it is a key determinant of the transmission system operator's activity which is correlated to the costs of that transmission system operator. This parameter facilitates appropriate, pro-rata allocation of the costs caused by the reservation of the entire transmission system to the users of the transmission system. Article 5(1)(a)(ii) of Regulation (EU) 2017/460 explicitly lists the forecasted contracted capacity as a possible cost driver and, likewise, the capacity weighted distance reference price methodology described in Article 8 of Regulation (EU) 2017/460 recognises forecasted capacity as a cost driver. Detailed justifications of suitability as a cost driver and also of the rejection of distance as a complementary cost driver given the complexity and the meshed structure of the German gas transmission networks can be found in section B.I.5.b).
- 206 The ruling chamber, however, does not generally consider technical capacity (within the meaning of Article 2(1) para 18 of Regulation (EU) 715/2009 the maximum firm capacity that the transmission system operator can offer to the network users, taking account of system integrity and the operational requirements of the transmission network) to be a suitable cost driver. Using technical capacity merely results in an abstract consideration of the capability of the individual entry and exit points with no reference to the distribution of costs during a given tariff period among the network users, whose booking behaviour (and hence the booked or ordered capacity in each case) is a key factor in determining the extent to which the existing costs should be apportioned to the network users. However, the ruling chamber used technical capacity to calculate the degree of utilisation of various point types (see section B.I.5.b)(2)(ii)).
- 207 The transmission system operators will also offer the market additional capacity for a limited period of time by means of an oversubscription and buy-back scheme because, owing to the merger of the two market areas, only a reduced amount of firm technical capacity will be available for the single market area (see the relevant KAP+ determination proceedings of Ruling Chamber 7, BK7-19/037, decision of 25 March 2020 and the comments relating to the effects in section B.I.5.b)(1)(vii)).
- 208 In addition to the relevant indicative information, according to Article 26(1)(a)(i)(2) of Regulation (EU) 2017/460 the assumptions applied are also subject to consultation. In advance of this decision the transmission system operators were required to estimate the capacity forecasts for 2021, among other things. This was to be based on a hypothetical scenario that assumes a common German market area to be already in place from 1 January 2021 (see also section B.I.9)

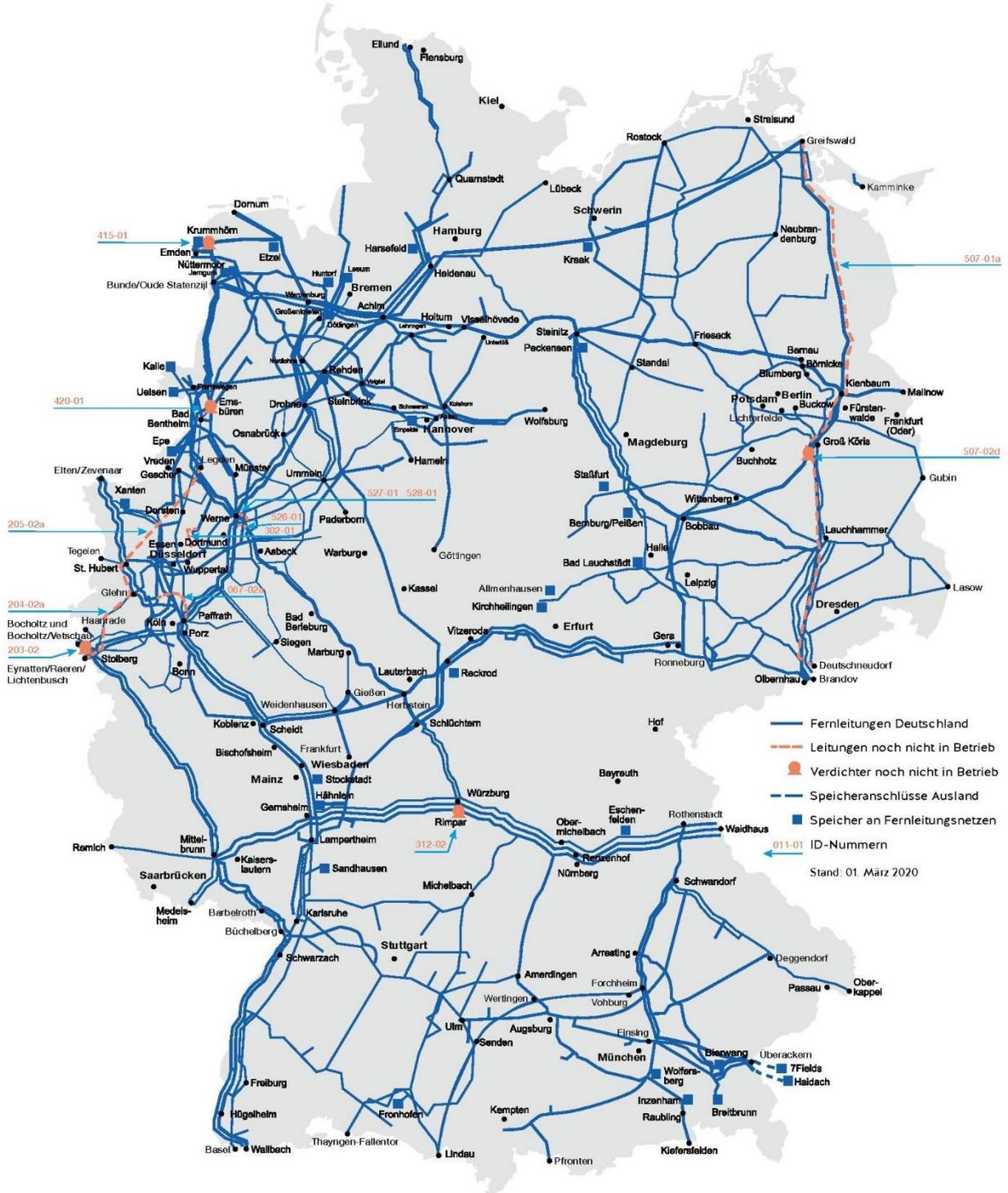
In accordance with this provision, the transmission system operators extrapolated the booked or ordered capacities from the previous years using estimates, in so doing taking appropriate account of findings such as the German network development plan, the loss of customers, the planned expansion of infrastructure, the development of prices resulting from the joint use of the reference price methodology, the trends of previous years, long-term forecasts of downstream network operators, the development of gas extraction in individual fields and/or any emerging shift of capacities at key points.

- 209 Since at the time of the first data collection it was not yet established what capacity framework will be used following the merger of the two current market areas, the transmission system operators were required to produce forecasts for two different scenarios. On the one hand a "minimum scenario" was taken as a basis in which only the capacity offer that can be presented and secured using the existing network infrastructure was taken into account. On the other hand a "maximum scenario" was used in which it was assumed that the capacity offer available prior to the market merger is transferred in full. In this way it should be possible to represent the entire spectrum of anticipated developments and utilise them for subsequent economic analyses. It then became clear in the course of the proceedings that – owing to the parallel Ruling Chamber 7 proceedings, now concluded, enabling an oversubscription scheme and certain MBIs to create additional capacity (BK7-19/037; KAP+, decision of 25 March 2020) and the parallel Ruling Chamber 9 proceedings, now concluded, classifying costs caused by such measures as volatile costs (BK9-19/606; KOMBI, decision of 30 March 2020) – capacity corresponding to the maximum scenario can be offered, which is why this scenario was taken as the basis for the following considerations. In addition, booking forecasts were requested for a further hypothetical scenario which assumes the continued existence of the two current market areas NCG and GASPOOL until 31 December 2021 in order to obtain comparative data and thus to gain insights into the development of tariffs and the charges resulting from the merger of the market areas. The Bundesnetzagentur has no indication that this capacity estimate is incorrect. In addition, some transmission system operators took the data collection on pipeline diameters and pressures in June to July 2020 as an opportunity to update the booking forecasts.
- 210 Insofar as the transmission system operators forecasted marketing firm capacity with restricted allocability (BZK) (to a negligible extent), the ruling chamber classed this as DZK. In so doing it is conforming to the provisions of decision BK7-18/052 of Ruling Chamber 7 of 10 October 2019 (KASPAR), according to which BZK products are no longer permitted to be marketed as of 1 October 2021 or will be incorporated in the more broadly defined DZK product.

b) Description of the transmission network structure

211 Insofar as Article 26(1)(a)(i) of Regulation (EU) 2017/460 refers to Article 30(1)(a)(iv) of Regulation (EU) 2017/460, it must be noted that a structural representation of the transmission network with an appropriate level of detail is not a parameter used in the reference price methodology and thus is not subject to formal consultation nor does it mandatorily form part of this decision. However, for reasons of transparency and because the above will need to be addressed in the context of stating the level of complexity of the transmission network within the meaning of Article 7 sentence 2(b) of Regulation (EU) 2017/460, the ruling chamber nevertheless includes a representation of the transmission network below. To this end, the ruling chamber adopts relevant outline maps from the 2020-2030 Gas Network Development Plan, which present an overview of the entire German transmission system showing both gas qualities:

213 Figure 1: Start network for modelling the 2020-2030 Gas Network Development Plan as of 1 March 2020, source: transmission system operators, 2020–2030 Gas Network Development Plan of 1 July 2020, page 72

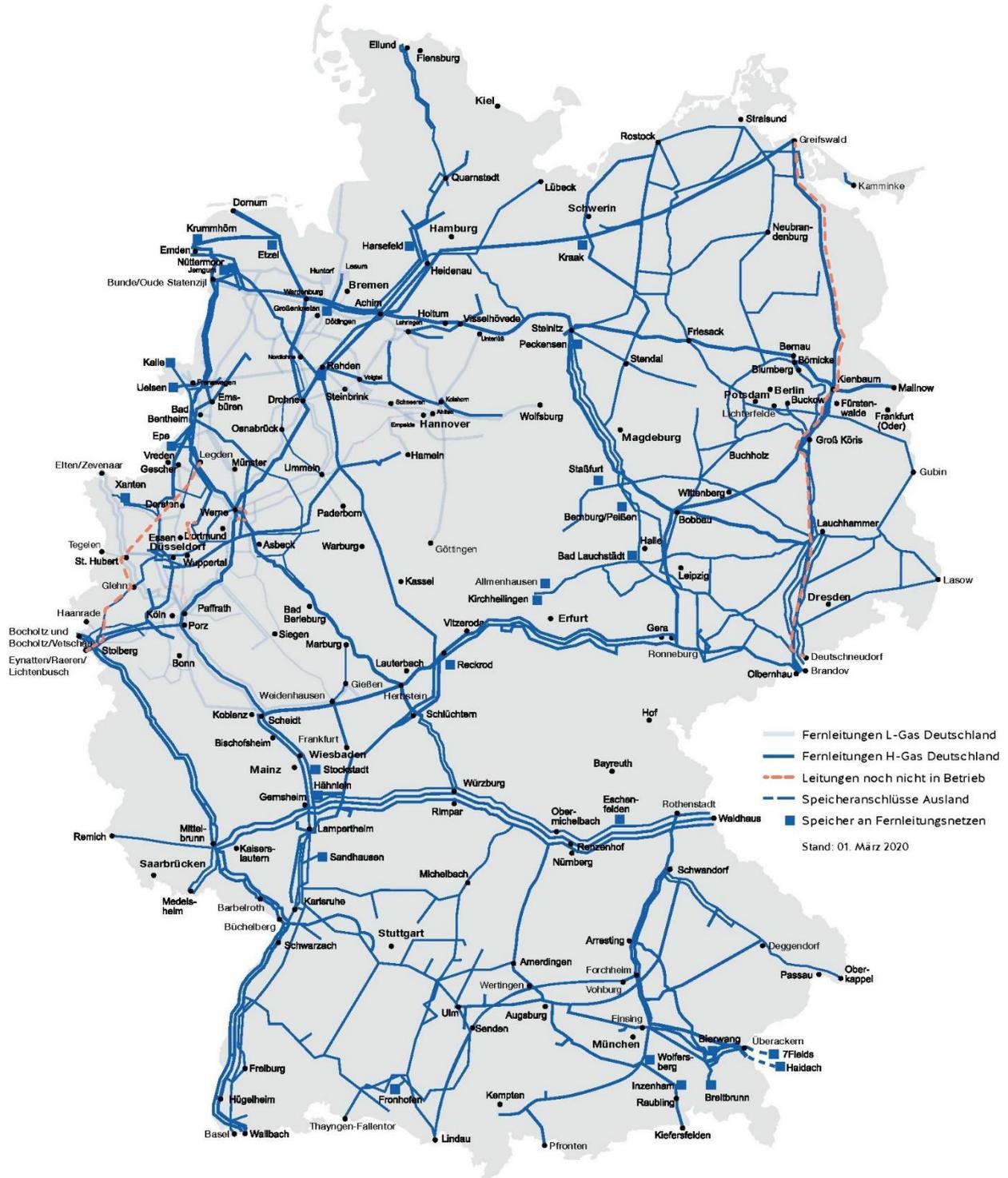


Fernleitungen Deutschland	Transmission pipelines in Germany
Leitungen noch nicht in Betrieb	Pipelines not yet in operation
Verdichter noch nicht in Betrieb	Compressors not yet in operation

Speicheranschlüsse Ausland	Storage connections neighbouring countries
Speicher an Fernleitungsnetzen	Storage facilities at transmission networks
ID-Nummern	ID numbers
Stand: 01. März 2020	As at 1 March 2020

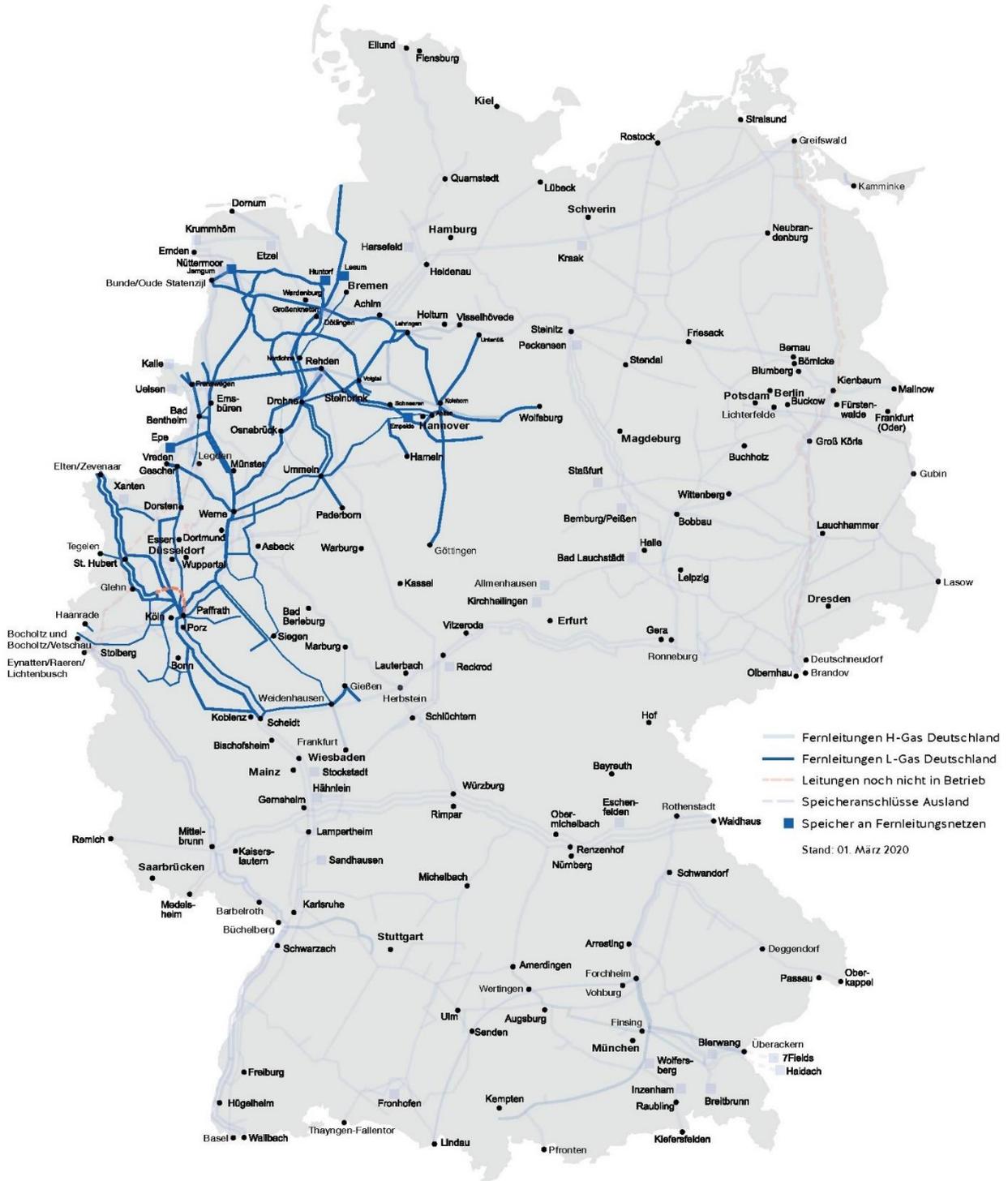
214 Complementing the above, the figures below present an overview of the corresponding H-gas and L-gas structures. This is important insofar as the reference price methodology to be determined here is to be applied to a dual-quality market area. The dual-quality nature of the market area is relevant because it results in increased complexity.

215 Figure 2: H-gas transport network, source: transmission system operators, 2020-2030 Gas Network Development Plan of 1 July 2020, page 67



Fernleitungen L-Gas Deutschland	L-gas transmission pipelines in Germany
Fernleitungen H-Gas Deutschland	H-gas transmission pipelines in Germany
Leitungen noch nicht in Betrieb	Pipelines not yet in operation
Speicheranschlüsse Ausland	Storage connections neighbouring countries
Speicher an Fernleitungsnetzen	Storage facilities at transmission networks

216 Figure 3: L-gas transport network, source: transmission system operators, 2020-2030 Gas Network Development Plan of 1 July 2020, page 68



Fernleitungen L-Gas Deutschland	L-gas transmission pipelines in Germany
Leitungen noch nicht in Betrieb	Pipelines not yet in operation
Speicheranschlüsse Ausland	Storage connections neighbouring countries
Speicher an Fernleitungsnetzen	Storage facilities at transmission networks
Stand: 01. März 2020	As at 1 March 2020

3. Indicative reference prices according to Article 26(1)(a)(iii) of Regulation (EU) 2017/460

- 217 According to Article 26(1)(a)(iii) of Regulation (EU) 2017/460, the indicative reference prices are subject to consultation. The indicative reference price for the reference price methodology to be applied jointly by all transmission system operators within one entry-exit system in accordance with Article 10(1) of Regulation (EU) 2017/460 is shown in Annex 1 for the reference price methodology according to operative part 1 (uniform postage stamp method). Annex 1 shows the indicative reference price before and after rescaling according to Article 6(4)(c) of Regulation (EU) 2017/460. The price before rescaling does not take into account that, depending on the booking behaviour of the network users, the forecasted contracted capacities may result in different revenues due to multipliers and discounts. Rescaling with the indicative factor shown in Annex 1 enables the transmission system operators to recover transmission services revenue in actual fact. Based on the information from the network operators on forecasted capacity and indicative transmission services revenue, the ruling chamber calculated the indicative reference price itself.
- 218 When calculating the reference price, the ruling chamber took account of all findings on the input parameters available up until the time the decision was made. This applies to capacity forecasts, some of which were updated. With respect to the allowed transmission services revenue, the transmission system operators' figures that fed into the tariff publication for the first three quarters of 2021 were used. These updates initially result in a decrease in the reference price from the consulted price of €3.69 per kWh/h/a to €3.53 per kWh/h/a. In addition, the ruling chamber took account of the consequences of the final version of the MARGIT 2021 determination (BK9-19/612, decision of 11 September 2020) for the fourth quarter of 2021. In these calculations, the ruling chamber has already taken account on an indicative basis of a corresponding amendment to the BEATE 2.0 determination (BK9-18/608, ruling of 29 March 2019) with regard to H-gas points, although these indicative effects are only marginal (about €0.01 per kWh/h/a for the reference price). The higher discount for interruptible capacity products at H-gas points would lead to an indicative increase in the reference price from €3.53 per kWh/h/a to €3.67 per kWh/h/a (assuming the last updated input parameters for the reference price methodology). With respect to the exact conditions, including the discounting of conditional, firm capacity products, reference is made to the relevant comments in the MARGIT 2021 determination. This indicative calculation does not

prejudice the actual amendment to the BEATE determination, which will be the subject of separate determination proceedings.

219 Furthermore, the ruling chamber points out that the indicative reference price in Annex 1 represents a non-binding forecast for a period of twelve months for a single German market area. The actual reference price that will be published by the transmission system operators for the fourth quarter of 2021 is expected to be lower than this reference price. The background to this is that, in accordance with operative part 1, for the months of October to December 2021 the transmission system operators must run a hypothetical booking forecast that assumes there to be a single German market area for the whole of 2021 when calculating the reference prices. Thus, for example, the fact that the market area interconnection points will no longer exist from 1 October 2021 is therefore applied to the whole of the year in the calculations. However, the adjustment factor provided for in operative part 4 enables the fact to be taken into account that higher discounts for uFZK and, consequently, also for DZK and bFZK, will not apply until 1 October 2021. The calculations made and the results presented in the determination are based on a period of twelve months with respect to both the hypothetical booking forecast and the higher discount for uFZK and, consequently, also for DZK and bFZK applicable from 1 October 2021.

4. Cost allocation assessment according to Article 26(1)(a)(iv) of Regulation (EU) 2017/460

220 Article 26(1)(a)(iv) of Regulation (EU) 2017/460 stipulates that the results and components of the cost allocation assessments set out in Article 5 of Regulation (EU) 2017/460 and the details of these components are subject to consultation.

221 The cost allocation assessment must indicate the degree of cross-subsidisation between intra-system and cross-system network use based on the proposed reference price methodology (Article 5(2) of Regulation (EU) 2017/460). Intra-system network use, as defined in Article 3 sentence 2 para 8 of Regulation (EU) 2017/460, means transporting gas within an entry-exit system to customers connected to that same entry-exit system. Cross-system network use, as defined in Article 3 sentence 2 para 9 of Regulation (EU) 2017/460, means transporting gas within an entry-exit system to customers connected to another entry-exit system.

222 According to Article 5(1) of Regulation (EU) 2017/460, the cost allocation assessment relating to transmission services revenue must be based exclusively on the cost drivers of technical capacity, forecasted contracted capacity, technical capacity and distance or forecasted contracted capacity and distance. Because the only cost driver included in the uniform postage stamp reference price methodology is the forecasted contracted capacity and because, in accordance with Article 5(2) of Regulation (EU) 2017/460, the basis of the cost allocation assessment must be the proposed reference price methodology, the ruling chamber carried out the cost allocation assessment in

accordance with Article 5(1)(a)(ii) of Regulation (EU) 2017/460 based on the forecasted contracted capacity.

- 223 Annex 2 lists the following, itemised by type of entry and exit point (for information purposes): the individual technical capacity, the forecasted contracted capacity (which, due to interruptible capacities, may in individual cases be greater than the technical capacity) and the revenues generated by intra-system and cross-system network use. The adjusted capacities – that is capacities weighted using discounts and mark-ups on the reference price (multipliers and discounts) – are also listed.
- 224 The following types of entry point are specified:
- NKP (GÜP) – cross-border interconnection point
 - NAP (Ez) – connection of domestic production facilities
 - NAP (Sp) – storage
 - NAP (Bio) – biogas input
 - NAP (PtG) – power-to-gas
- 225 The following types of exit points are specified:
- NKP (GÜP) – cross-border interconnection point
 - NKP (iB) – internal order of a downstream distribution system operator
 - NAP (Sp) – storage
 - NAP (Lv) – end user connection
- 226 No entry points from LNG facilities are included yet because no marketing of such points in Germany is to be expected yet for 2021, the year for which indicative information is to be published with this decision. Nevertheless, the provisions made here – assuming that the validity of this decision remains unchanged (see also below under section B.VI) – will also apply to such points in future calendar years.
- 227 The totals of these data constitute the components of the cost allocation assessment; the respective individual values constitute the details of these components (see Article 26(1)(a)(iv) of Regulation (EU) 2017/460). The ruling chamber has received a further breakdown of the data. However, some of the data are confidential industrial and business information, concerning end users for example, and shall therefore not be made available to the public in full. Capacity forecasts at specific points may also be considered commercially sensitive for transmission system operators because such data are internal assessments of customer behaviour.
- 228 The derivation of the forecasted capacities has already been explained in the context of Article 26(1)(a)(i) of Regulation (EU) 2017/460. The key factor for the cost allocation assessment according to Article 5 of Regulation (EU) 2017/460 is the split of forecasted revenue between intra-system and cross-system network use.

229 The transmission system operators had to notify the ruling chamber of their total revenues, taking into account any adjustments resulting from, for example, multipliers, discounts and seasonal factors and adjustments pursuant to Article 6(4)(a) to (c) of Regulation (EU) 2017/460. Annex 2 also shows a cost allocation in accordance with Article 5 of Regulation (EU) 2017/460 in which the revenue is calculated using only the unadjusted average contracted capacities without considering multipliers etc. This calculation, in conjunction with a capacity-weighted entry-exit split, results in a comparison index of 0%. Any divergences from this by taking account of a discount at storage facilities have no significance in the assessment of cross-subsidisation between intra-system and cross-system network use. This line of thought shows anyway that with a postage stamp as the reference price methodology and resultant uniform reference prices the cost allocation assessment according to Article 5 of Regulation (EU) 2017/460 does not provide any information with regard to the reference price methodology. 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 or cross-system network use. The cost allocation assessment is still carried out, however, for reasons of transparency.

230 Intra-system network use refers to the transport of gas within an entry-exit system to customers connected to that same entry-exit system (Article 3 sentence 2 para 8 of Regulation (EU) 2017/460). Cross-system network use refers to the transport of gas within an entry-exit system to customers connected to another entry-exit system (Article 3 sentence 2 para 9 of Regulation (EU) 2017/460). The revenue at exit points to downstream distribution system operators and to end users is always allocable to intra-system network use. The transmission system operators considered the revenue at exit points at storage facilities (putting gas into storage) to be intra-system network use. It is not possible to give an unequivocal answer to the question of how to classify revenue at storage facilities, firstly because an exit point at a storage facility is located within the entry-exit system and can be treated in the same way as a customer who is connected to the entry-exit system. This would justify attributing the revenue to intra-system network use. Secondly, putting gas into storage enables gas to be taken out of storage at a later date, which in turn can be apportioned pro rata to both intra-system and cross-system network use, as the calculation logic set out in Article 5(5) of Regulation (EU) 2017/460 generally shows for entry points.

231 Consequently, in order to cover all possibilities, the ruling chamber carried out multiple cost allocation assessments and allocated the revenue at the exit points at storage facilities using the variants shown in Annex 2

- only to intra-system network use (according to the assessment of the transmission system operators)

- pro rata according to the ratio between the forecasted contracted capacities at exit points

which clearly serve intra-system or cross-system network use respectively (see above: therefore

around 30 % allocated to cross-system network use)

- equally attributed, 50% to intra-system and 50% to cross-system network use
- attributed only to cross-system network use.

232 The question of the extent to which the revenue at entry points should be allocated to intra-system or cross-system network use is also unclear. The provisions set out in Article 5(5) of Regulation (EU) 2017/460 provide for equal distribution. Accordingly, by analogy, the proportion of cross-system exit capacities divided by the total capacities at the entry points yields the relevant ratio for splitting the revenue at the entry points.

233 Annex 2 shows the result of the cost allocation assessment based on the calculation steps set out in Article 5(2), (3) and (5) of Regulation (EU) 2017/460. Indices of 11.9% and 16.7% are obtained only in the variants where 50% and 100% of the revenue and capacities at exit points to storage facilities are allocated to cross-system network use. In the other variants, the comparison index is below 10%. However, fully allocating the revenue and capacities at exit points at storage facilities to cross-system network use is not at all appropriate and is also a somewhat theoretical situation. What is appropriate is the pro-rata allocation of approximately 30% to cross-system network use (this corresponds to the ratio between the forecasted contracted capacities at exit points which clearly serve intra-system or cross-system network use respectively). The results of the test show, in particular in comparison with the consultation version, cross-subsidisation to the benefit of cross-system network use. This is because it is largely these network users that benefit from the higher discounts available for uFZK and, consequently, for DZK and bFZK.

234 The ruling chamber also carried out the test for the capacity weighted distance reference price methodology in various variants. With respect to this, reference is made to section B.I.5.e).

5. Assessment of the reference price methodology according to Article 26(1)(a)(v) of Regulation (EU) 2017/460

235 According to Article 26(1)(a)(v) of Regulation (EU) 2017/460, it is necessary to consult on and determine the assessment of the proposed reference price methodology in accordance with Article 7 of Regulation (EU) 2017/460. In addition, in accordance with Article 26(1)(a)(vi) of Regulation (EU) 2017/460, as the proposed reference price methodology is other than the capacity weighted distance reference price methodology detailed in Article 8 of Regulation (EU) 2017/460, a comparison against the latter must be carried out together with a comparison of the respective reference prices.

236 Article 7 of Regulation (EU) 2017/460 stipulates that the reference price methodology shall comply with Article 13 of Regulation (EC) 715/2009 and shall aim at enabling network users to reproduce the calculation of reference prices and their accurate forecast; taking into account the actual costs

incurred for the provision of transmission services considering the level of complexity of the transmission network; ensuring non-discrimination and preventing undue cross-subsidisation including by taking into account the cost allocation assessments set out in Article 5 of Regulation (EU) 2017/460; ensuring that significant volume risk related particularly to transports across an entry-exit system is not assigned to end customers within that entry-exit system; and ensuring that the resulting reference prices do not distort cross-border trade.

237 Article 13(1) of Regulation (EC) 715/2009 stipulates that the approved tariffs and the approved methodologies used to calculate them must be transparent, must take into account the need for system integrity and its improvement, and must 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, must be applied in a non-discriminatory manner. They must 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 must 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 and exit points must be approved by the national regulatory authorities. Article 13(2) of Regulation (EC) 715/2009 stipulates that tariffs for network access must neither restrict market liquidity nor distort trade across borders of different transmission systems.

238 Some of the requirements set out in Article 7 sentence 2 of Regulation (EU) 2017/460 correspond to those set out in Article 13 of Regulation (EC) 715/2009 or are only marginally different, while other requirements are mentioned exclusively in Article 7 sentence 2 of Regulation (EU) 2017/460 or exclusively in Article 13 of Regulation (EC) 715/2009. The specific requirements and the compatibility of the reference price methodology with these requirements are set out in the following. As Article 26(1)(a)(vi) of Regulation (EU) 2017/460 prescribes that the proposed methodology must be compared against the capacity weighted reference price methodology detailed in Article 8 of Regulation (EU) 2017/460, a comparison of the methodologies is made with respect to each of the requirements set out in Article 7 sentence 2 of Regulation (EU) 2017/460 and Article 13 of Regulation (EC) 715/2009. In addition, the reference price methodologies proposed by some network operators, the postage stamp per type of network point and the function-specific postage stamp on the basis of explicit cost allocation according to transport tasks, are assessed for comparison using the above criteria.

239 With respect to the weighting of the criteria, no priority is given to, for instance, the criterion of cost-reflectivity as referred to in Article 7 sentence 2(b) of Regulation (EU) 2017/460. This follows

from Article 7 sentence 2(b) of Regulation (EU) 2017/460 itself, which stipulates that the actual costs incurred for the provision of transmission services considering the level of complexity of the transmission network must (merely) be taken into account. The wording does not specify a level of cost-reflectivity beyond the degree of "taking into account". This is supported by the wording of recital 3 of Regulation (EU) 2017/460, which states that a reasonable level of cost-reflectivity must be ensured in an entry-exit system.

240 In addition, recital 2 of Regulation (EU) 2017/460 shows that the criterion of transparency is highly relevant. It states that a crucial step in reaching the objectives of Regulation (EC) No 715/2009 is to increase the transparency of transmission tariff structures and procedures towards setting them. The rules referred to in recital 1 of Regulation (EU) 2017/460 are to contribute to market integration, enhance security of supply and promote the interconnection between gas networks. Against this background, a reference price methodology must also meet the transparency requirements of Article 7 sentence 2(a) of Regulation (EU) 2017/460.

241 Specifically:

a) Article 7 sentence 2(a) of Regulation (EU) 2017/460

242 According to Article 7 sentence 2(a) of Regulation (EU) 2017/460 the reference price methodology must have the objective of enabling network users to reproduce the calculation of reference prices and their forecast. This sets out in more concrete terms the general requirement in Article 13(1) of Regulation (EC) 715/2009 for transparency of tariffs or of the methodologies used to calculate them.

(1) The uniform postage stamp reference price methodology

243 The uniform postage stamp reference price methodology meets this requirement. The calculation is carried out by dividing the transmission services revenue by the forecasted contracted capacities, ensuring maximum transparency for all market participants. If adjustments are made to the estimate of the two input parameters, the effects on the reference prices are directly evident. Furthermore, Article 30(1)(a) of Regulation (EU) 2017/460 stipulates that these parameters must be published, thus to this extent ensuring maximum transparency over the course of time. The non-pricing of biogas and power-to-gas entry points is also easily comprehensible and therefore transparent.

(2) Capacity weighted distance reference price methodology

244 Compared to the above, the capacity weighted distance reference price methodology detailed in Article 8 of Regulation (EU) 2017/460 does not meet the requirements set out in Article 7 sentence 2(a) of Regulation (EU) 2017/460 given the complexity of the relevant market area in

this case. In order to calculate and ensure the transparency of the reference prices in accordance with Article 8 of Regulation (EU) 2017/460, extensive knowledge of internal information about the transmission system operators is necessary, which market participants cannot have because some of it is confidential industrial and business information relating to third-party companies (such as capacity forecasts of end users) or includes security-related information such as the exact locations of energy supply facilities and their importance with respect to capacity. Necessary flow scenarios as defined in Article 3 sentence 2 para 20 of Regulation (EU) 2017/460 are also internal information which cannot simply be made transparent for or modelled by market participants. Although the use of clusters (Article 3 sentence 2 para 19 of Regulation (EU) 2017/460) for the purpose of simplifying the calculation of the reference price methodology in accordance with Article 8 of Regulation (EU) 2017/460 facilitates the calculation, in effect the results obtained are to a degree only seemingly accurate.

245 Furthermore, the capacity weighted reference price methodology described in Article 8 of Regulation (EU) 2017/460 has a low error tolerance. As the methodology is highly complex, errors cannot be ruled out, and moreover they may remain undetected as a result of its lack of transparency.

246 The forecast quality is also significantly higher with the uniform postage stamp reference price methodology, the reason being that because of the cumulation of values and subsequent calculation of averages, point-specific capacity forecasts do not influence the (point-specific) results as much as they do in the case of the capacity weighted reference price methodology. With the postage stamp method, the forecast quality is dependent only on how accurate the forecast development of overall capacity proves to be. In contrast with the capacity weighted reference price methodology detailed in Article 8 of Regulation (EU) 2017/460, using the postage stamp reference price methodology does not result in volatile revenues when new points are introduced or load flows are relocated, because taken together the prices have a lower variability.

247 The forecasted transmission services revenue is taken into account to the same extent in every reference price methodology and is therefore irrelevant to the comparative assessment of reference price methodologies.

(3) The postage stamp per type of network point reference price methodology

248 In principle, the proposed postage stamp per type of network point reference price methodology also meets the requirements set out in Article 7 sentence 2(a) of Regulation (EU) 2017/460, although transparency is somewhat reduced on account of its greater complexity compared to the uniform postage stamp reference price methodology. Furthermore, the proposal leaves certain questions about the actual calculation unanswered. For instance, revenue can be allocated to the individual point types either on the basis of capacities weighted according to duration of use and

proportional value or on the basis of non-weighted capacities. Both variants were put forward for discussion in the course of earlier consultation proceedings. Using non-weighted capacities leads to the follow-up question of whether the reference prices per type of network point should be adjusted as a whole according to Article 6(4)(c) of Regulation (EU) 2017/460 or whether the appropriate solution would be to adjust them for each point type. If adjustment is carried out as a whole and also if the adjusted capacities are used in the first step, discounts such as for conditional firm capacity products in the form of DZK would have to be borne by other point types. This may be appropriate at storage points where discounting is mandatory, but otherwise needs to be discussed in more detail with respect to Article 7 sentence 2(b) of Regulation (EU) 2017/460. In any case, these necessary intermediate steps increase the complexity of the methodology.

(4) The function-specific postage stamp reference price methodology

249 The function-specific postage stamp reference price methodology, by contrast, hardly meets the criterion of transparency, or meets it to a significantly lesser extent. Contrary to what was stated by the supporters of this method, the decisive factor in this case is not a comparison with the degree of transparency of the capacity weighted distance, because this comparison merely corresponds to the question of whether a reference price methodology should be supplemented with distance as an additional cost driver (which would increase the complexity of any method). In fact, the results of the consultation and the ruling chamber's consequent assessments suggest that the large number of individual questions associated with this method would lead to a high degree of non-transparency.

(i) Transparency with respect to technical differentiation criteria

250 Even given an extremely simple differentiation criterion of, for example, a 700 mm pipeline diameter to separate the network functions, numerous counter-examples were put forward in the consultation that could make a different assessment necessary. With respect to points such as storage facilities and gas-fired power plants, an assessment deviating from the technical connection criteria was also put forward by market participants in the consultation. Such special rules would increase the complexity and non-transparency of the methodology.

251 The transparency of the methodology for the network users is greatly reduced by the increasing complexity of the calculation. Moreover, the quantity of input data required is additionally extended by certain structural parameters. The ruling chamber has already had the experience in several proceedings concerning benchmarking that the collection, plausibility checking and validation of structural data often involve complications, data errors and the need for extensive corrections and follow-up data collections. Carrying out a data collection of this nature on an annual basis to determine the current reference prices at the time, something that furthermore would have to be

organised by the transmission system operators themselves acting cooperatively without the participation of the ruling chamber and within a relatively short period of time, appears at the least to be demanding and subject to considerable uncertainties. It is questionable whether such an approach could provide a sufficient degree of transparency for the market.

(ii) Transparency with respect to the differentiation of costs

- 252 The supplementary expert opinion from DNV GL that was submitted in the consultation also showed that the decisive issue of cost allocation would involve individual decisions that would be difficult for third parties to understand. Specifically, an assessment is made of the extent to which network assets, capital costs and operating costs can be allocated directly or using a common cost key. With respect to network assets, the view is that natural gas compressors and pipelines/house connection pipes can be allocated directly, while general assets, gas tanks and measuring, regulating and metering stations would need to be allocated partly directly and partly using a common cost key. Telecontrol systems could only be allocated using a key. With respect to the components of the expected return on equity, operating assets I, operating capital I and imputed trade tax could be allocated directly, while operating assets II, operating capital II and interest on borrowings would need to be allocated partly directly and partly using a common cost key. Non-interest-bearing liabilities would, however, only be able to be allocated using a key.
- 253 However, it is unclear why operating assets I and operating capital I can be fully allocated directly to the network functions if, as stated before in the expert opinion, network assets, which account for a significant part of operating assets I and operating capital I in the form of imputed tangible fixed assets, cannot be fully allocated directly. With respect to telecontrol systems, for example, the view is taken that this asset group can only be allocated using a common cost key. Here, the approach is obviously inconsistent.
- 254 The more the expert opinion deals with calculating the imputed costs, the greater the inconsistencies. The view is then taken in the expert opinion that operating assets II and operating capital II can be allocated partly directly and partly using a common cost key. The only difference between operating assets I and II and operating capital I and II, however, is how the value of the same tangible fixed assets is adjusted proportionally to current values. It is not clear why operating assets I and operating capital I can be allocated directly while operating assets II and operating capital II can be allocated only partly directly.
- 255 By contrast, the view in the expert opinion is that imputed trade tax can be allocated directly. Here again it is not clear why, because the view was taken that operating capital II, which together with the consequent expected return on equity provides the basis for calculating the imputed trade tax, could be allocated only partly directly.

256 According to the expert opinion, possible keys that meet the criterion of a high degree of accuracy could be residual values of the allocable assets, gas pipeline purchase/production costs, indicators such as network length or full-time equivalents of staff and expert estimates or arbitrary splits. However, the expert opinion only includes general theoretical comments on these possible keys and does not demonstrate the suitability of the keys to guarantee an appropriate and sufficiently accurate allocation of costs for the German system. This host of questions about differentiation clearly illustrates the lack of transparency of the proposed function-specific postage stamp methodology.

(5) Assessment of the transparency of the reference price methodologies

257 In conclusion, the uniform postage stamp reference price methodology meets the requirements set out in Article 7 sentence 2(a) of Regulation (EU) 2017/460 because it enables network users to reproduce the calculation of reference prices and their accurate forecast. The capacity weighted distance reference price methodology set out in Article 8 of Regulation (EU) 2017/460 does not satisfy these requirements nearly as well. The proposed postage stamp per type of network point reference price methodology also meets these requirements, if not to the same extent as the postage stamp reference price methodology. In addition, some questions as to the specific design of this methodology remain unanswered, as explained above. By contrast, the function-specific postage stamp reference price methodology hardly meets the criterion and does not meet the requirements of Article 7 sentence 2(a) of Regulation (EU) 2017/460.

b) Article 7 sentence 2(b) of Regulation (EU) 2017/460

258 Article 7 sentence 2(b) of Regulation (EU) 2017/460 stipulates that the reference price methodology must aim at taking into account the actual costs incurred for the provision of transmission services considering the level of complexity of the transmission network. This sets out in more concrete terms the requirement in Article 13 of Regulation (EC) 715/2009 that the approved tariffs or methodologies used to calculate them must 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).

259 The qualifying bracketed adjunct to the actual costs in Article 13 of Regulation (EC) 715/2009 is sufficiently satisfied by the provisions of the GasNEV and the ARegV and is relevant only to the question of the level of the revenue cap and therefore also the level of transmission services revenue, but not to the assessment of reference price methodologies. However, this does not mean that the reference price methodology could be determined independently of actual costs. On the contrary, the degree of cost-reflectivity is a key element in ensuring that the reference price methodology is appropriate.

(1) Complexity of the transmission system

260 The postage stamp reference price methodology meets this requirement against the background of the complexity of the German market area.

(i) Basic technical characteristics of the transmission network

261 The German market area is a highly complex system consisting of 16 transmission system operators who cooperate in all matters. They operate a transmission network with a length of – taking the previous NCG and GASPOOL market areas together – more than 37,000 km with 270 physical entry points and 3,514 physical exit points. Altogether 122 bookable entry points and 1,171 bookable or orderable exit points can be counted from the data entry forms submitted by the transmission system operators for the future joint market area after removal of the market area interconnection points. Within this context, facilities which are common property or which are held by jointly operating pipeline companies are taken into account twice because of the greater complexity of joint use and joint maintenance. This complexity is also apparent from the large number of branches (7,615) and mesh points (1,298). The data on which this information is based is the transmission system operator benchmarking for the third regulatory period.

262 The ruling chamber is of the opinion that, even compared to other European countries, the German market area is an extremely complex transmission system. An indication of this complexity, apart from the above-mentioned metrics, is the extensive flexibility of the system. The network is able to transport gas on a firm basis from every neighbouring country with the exception of France and Switzerland. Consequently, gas flow and demand for capacity are dependent on price differences between market areas, political developments and even by the weather. Furthermore, for topological reasons the German market area is an important location for interim gas storage. These fundamental considerations in themselves demonstrate that the German market area is highly meshed and flexibly designed.

(ii) Combinations of entry and exit points

263 The number of possible combinations of entry and exit points can also be used as a measure for the complexity of the system. According to information from the transmission system operators, there were 116,281 possible combinations in the GASPOOL market area in 2009 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 948,780.¹

¹ Presentation by the transmission system operators on the market dialogue during E-world energy & water on 6 February 2019 in Essen, available at: http://www.marktgebietszusammenlegung.de/wp-content/uploads/Praesentation_eworld_2019_02_06_DE.pdf, slide 26, date of download: 13 February 2019.

The large number of possible combinations in each case demonstrates that each market area already constitutes a sufficiently complex system in itself. Furthermore, in future this complexity will significantly increase many times over. Given the pending market area merger, the complexity of the German transmission system poses particular challenges for the transmission system operators in determining the basic future framework of the capacity structure. The node-edge model, for example, which is used to describe the network topology in this context, yields around 60-70 million results to be analysed according to the transmission system operators, across a number of different scenarios.²

264 The underlying node-edge model is illustrated by the transmission system operators' graphical representation shown below.³ The main striking feature is the large number of edges originating from the various nodes, while the large number of edges originating from nodes depicted in red stands out in particular. The model uses the colour red to signify node points that can be attributed to more than one transmission system operator. This clearly demonstrates the complexity of the German transmission system as a whole and also the high degree of meshing between individual transmission system operators.

² Ibid.

³ Ibid.

although market areas have gradually been merged since the start of regulation thanks to cooperation between the transmission system operators, thus creating highly liquid markets, there were no corresponding arrangements in place that would have led to pricing of the relevant essential services between the transmission system operators.

268 From the perspective of tariffs – in spite of the market area mergers – prices were still determined separately even though it is indisputable that, in some cases, the respective transmission system operator is only able to offer the capacities identified in the merged market area by using the infrastructure of other network operators.

269 The mergers of the market areas within Germany have resulted in a successive decrease in the number of inter-transmission system operator market area interconnection points bookable by network users. Following each market area merger, the interconnection points concerned are subject to mutual cooperation between the transmission system operators as regards flows and capacity at the points. These reciprocal services constitute one key element, although not the only element, of the cooperation between the transmission system operators.

270 The ruling chamber has been deliberating over this issue for a period of several years and, with the participation of other market actors, has tried to arrive at an appropriate tariff system, which ultimately failed due to legal and technical obstacles. It is necessary to describe these proceedings in order to understand the deliberations of the ruling chamber, leading ultimately to uniform tariffication:

271 In 2009 the ruling chamber contacted the transmission system operators to discuss the issue of horizontal cost allocation with them. In response, the transmission system operators stated that they considered it appropriate not to price capacities made available to another market area partner at network interconnection points within a market area. Given the fact that the market area mergers have not yet been concluded, the ruling chamber at first accepted this approach while announcing even at the time that it would re-examine whether the procedure was appropriate if and when the ruling chamber found that there were indications that the action of the transmission system operators created false incentives on the market.

272 After the experience of the first regulatory period (2009 to 2012), the ruling chamber came to the conclusion that the existing system was such that the booking behaviour of network users forced the network operators to deviate more and more from appropriate cost allocation and instead to place a greater burden on captive customers. It was also to be assumed that, because of the merger of the market areas, appropriate allocation of costs was doubtful in the existing system.

273 For this reason, in a letter dated 26 July 2013 Ruling Chamber 9 informed the affected transmission system operators of its intention to issue a determination on horizontal cost allocation between transmission system operators. The same letter included an invitation to the affected

transmission system operators to take part in an initial consultation event for the purpose of a joint discussion on the deliberations.

- 274 Over the following months the ruling chamber held various bilateral talks with the market participants discussing different methodological approaches to horizontal cost allocation. These various approaches were presented to the affected transmission system operators and discussed with them at another consultation event on 25 November 2014 in Bonn. During the discussions, the ruling chamber made it clear that its preference was the methodology which proposes a type of cost allocation analogous to vertical cost allocation.
- 275 Gas industry actors raised objections, stating among other things that this approach threatened the current market area cooperation. They argued that the planned cost allocation method would also further distort cost-reflectivity because the preferred model only took account of the gas goods or services provided by the transmission system operator supplying the gas, whereas gas transport from the transfer point was also a gas service for which the service provider should be reimbursed in the same way.
- 276 Subsequently, the ruling chamber examined the so-called "forward and reverse allocation" methodology. In this approach, both the transmission system operator providing the capacity – in terms of flow mechanics upstream – and the network operator receiving the gas – in terms of flow mechanics downstream – would each have had to pay for the gas services provided by the other. Consequently, both the transmission system operator providing the gas and who makes the capacity available at the network interconnection point within the market area and also the transmission system operator accepting the gas and who transports the gas from this point would be paid a fee for the gas goods and services they provided. Likewise, tariffs would also have been set for capacity used jointly by different transmission system operators within the same pipeline company.
- 277 Some gas industry actors raised objections to this, claiming that it was impossible to determine which gas services were provided in view of the fact that capacities within pipeline companies were interruptible or made available to the best of their abilities.
- 278 The ruling chamber subsequently conducted a survey to collect data on the gas services described above. After evaluating the submitted data, the ruling chamber concluded that the contractual arrangements relating to the maximum amount of firm capacity offered at physical interconnection points between transmission system operators within a market area do not constitute a sufficiently strong basis for price setting.
- 279 In order to explore and discuss the problems that had arisen and the intended further proceedings, the ruling chamber invited the transmission system operators and associations to another consultation event, which took place in Bonn on 19 November 2015. At this event, the issues

surrounding the contractual arrangements were discussed in detail but no new potential solutions emerged. For this reason the ruling chamber indicated that it would examine whether pricing of the actual load flows could constitute an appropriate and cost-reflective alternative to contractually agreed capacities. Against this background, the transmission system operators were promised another survey to collect data on load flows.

280 In a letter dated 1 December 2015 the ruling chamber asked the transmission system operators to submit all hourly load flow values measured at every physical interconnection point between transmission system operators and/or to submit the allocated values at all entry and exit points from and to pipeline companies for the last three calendar years. The submitted data were evaluated and the findings obtained were assessed, from which the ruling chamber established that actual load flows at interconnection points did not constitute a sufficiently strong basis for pricing either, particularly in view of the fact that joint schedule management in a given market area makes precise allocation of gas flows impossible in some cases, especially at interconnection points to and within pipeline companies.

281 For this reason, the ruling chamber refrained from using the intended "forward and reverse allocation" approach. Subsequently, an easy to implement method to manage cost allocation between transmission system operators was developed. This methodology would specify a capacity weighted entry-exit split for every transmission system operator. The costs assigned to the entry side would then be allocated to all entry points in the respective market area, which would have resulted in a consistent entry charge for a firm, freely allocable yearly capacity within a given market area. These provisions were to be implemented by 1 January 2018 as set out in determination BK9-13/607 of 22 June 2016. However, a complaint was filed against this determination. During a hearing at the Higher Regional Court of Düsseldorf on 11 October 2017 the Bundesnetzagentur revoked the determination, the main reason being doubts about whether there was an appropriate enabling provision. This meant that since then tariffs have continued to be set separately without a compensation mechanism; however, according to Article 10(3) sentence 2 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.

282 This timeline demonstrates two distinct issues: firstly, in the highly complex German market and with the web of interest-driven interaction between the transmission system operators it is impossible to arrive at a consensus on the specific design of an effective compensation mechanism where the reference price methodology is applied separately and which in the opinion of the ruling chamber and of other market participants has to take account of the gas services between the transmission system operators. Secondly, 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 the transmission system operators.

283 These findings are connected to aspects of the complexity of the transmission systems and to the cost-reflectivity of reference price methodologies insofar as some gas industry actors claimed that separate tariffication, for instance in 2019, constitutes an unrestrictedly cost-reflective approach.

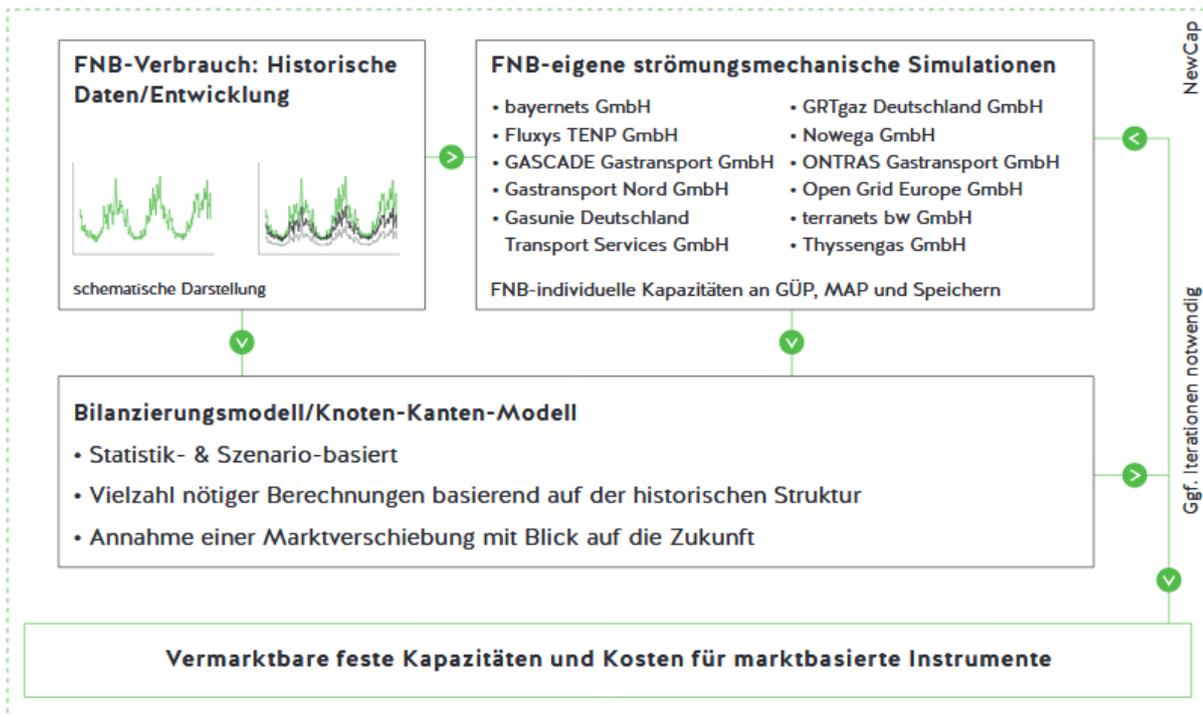
284 The shortcomings of this assessment against the background of the previous tariffication methodology are set out below, preceded by additional details of the complexity of the market area.

(iv) Joint calculation of the capacity framework as an expression of cooperation

285 The joint determination of the capacity framework in the market area is a clear expression of the cooperation between the transmission system operators. Section 9(1) sentence 1 GasNZV requires the transmission system operators to determine the technical capacity within the meaning of section 8(2) GasNZV. Section 9(1) sentence 2 GasNZV requires the transmission system operators to do this by determining the entry capacity for each entry point and the exit capacity for each exit point. Section 9(2) GasNZV requires the entry and exit capacity in a market area to be calculated on the basis of state-of-the-art flow simulations that also take account of cross-network and cross-market area flows. No other distinction is made between different functions.

286 The iterative method used by the transmission system operators to model the capacity in the single market area is illustrated below.

287 *Figure 5: "NewCap" capacity model, as presented by the transmission system operators in the "Gas Network Development Plan 2020-2030" consultation document, page 45:*

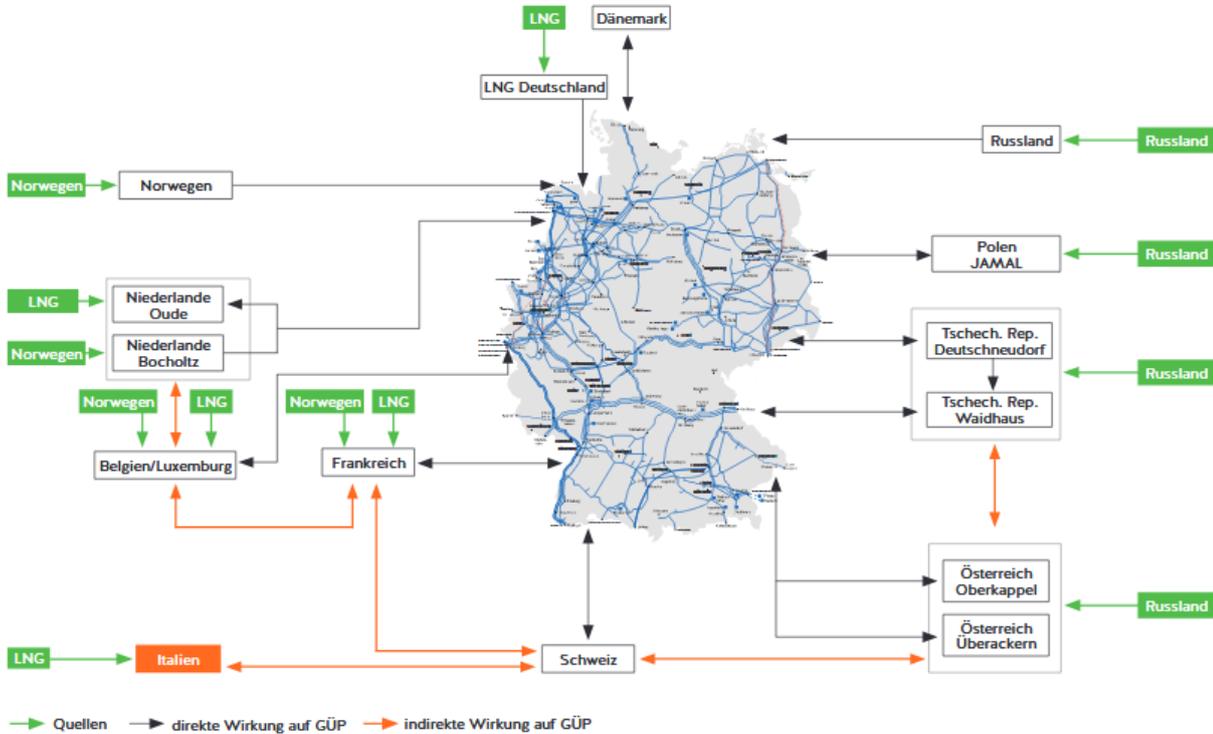


FNB-Verbrauch: Historische Daten/Entwicklung	TSO consumption: historical data/development
schematische Darstellung	schematic diagram
FNB-eigene strömungsmechanische Simulationen	TSOs' own flow simulations
FNB-individuelle Kapazitäten an GÜP, MAP und Speichern	TSOs' individual capacities at CIPs, MIPs and storage facilities
Bilanzierungsmodell/Knoten-Kanten-Modell	Balancing model/node-edge model
Statistik- & Szenario-basiert	Statistic-based and scenario-based
Vielzahl nötiger Berechnungen basierend auf der historischen Struktur	Large number of calculations necessary based on the historical structure
Annahme einer Marktverschiebung mit Blick auf die Zukunft	Assumption of a market shift with a view to the future
Vermarktbare feste Kapazitäten und Kosten für markt-basierte Instrumente	Marketable firm capacity and costs for market-based instruments
Ggf. Iterationen notwendig	Iterations may be necessary

288 The flow scenarios used for the capacity calculation are extremely complex. A large number of flow scenarios need to be computed before the marketable firm capacity can be determined. It is not possible to use one definitive flow scenario that, in a less complex system, can be used for a more clear-cut allocation of costs.

289 The various options with respect to the supply of gas to the German market area are illustrated below.

290 Figure 6: Options for the supply of gas to the German market area – input and offtake at cross-border interconnection points, as presented by the transmission system operators in the "Gas Network Development Plan 2020-2030" consultation document, page 47:



Dänemark	Denmark
Russland	Russia
Polen	Poland
Tschech. Rep.	Czechia
Österreich	Austria
Schweiz	Switzerland
Frankreich	France
Italien	Italy
Belgien/Luxemburg	Belgium/Luxembourg
Niederlande	Netherlands
Norwegen	Norway
Quellen	sources
direkte Wirkung auf GÜP	direct effect on CIP
indirekte Wirkung auf GÜP	indirect effect on CIP

291 The only historical data available that can be used are data on temperature-dependent exit quantities at temperature-dependent exit points (generally exit points to downstream networks and individual end users). There are no fixed data available that can be used for the other booking points (cross-border interconnection points, storage points, production points and non temperature-dependent end users such as gas-fired power plants). The capacity calculation with

a large number of flow calculations (considerably more than one hundred) therefore involves examining where there is congestion that cannot be relieved and how much capacity is actually available using worst-case assumptions. There is no one flow scenario that is generally applicable and could be used for other purposes. The tests determine only whether all the flow scenarios are actually physically possible and not which specific pipelines could actually be used for the flows.

- 292 Furthermore, a distinction cannot be made between domestic supply and cross-border transport flows, particularly as neither the shippers nor the tested flow scenarios make this distinction on the entry side. As the use of, for example, cross-border interconnection points by shippers is uncertain, it is necessary to calculate flow scenarios both with transit flows (relevant for determining the exit capacity) and without transit flows (relevant for determining the entry capacity). This alone shows why it is not generally possible to clearly allocate pipelines to either transit or national supply on the basis of the different flow scenarios. Moreover, various different entry points can be used for the same exit flows (national supply and, if applicable, cross-border transport), and vice versa. This results in various different transit flows, with the same pipelines sometimes being used more for transit flows and sometimes more for national supply.
- 293 These considerations are therefore not only relevant to the abstract question of complexity; they also show the difficulties in allocating pipeline structures to intra-system or cross-system network use that arise from the complexity.

(v) Complexity against the background of dispatching

- 294 The innumerable, complex simulations of gas flows through the connected systems of all the transmission system operators, which at market area level are calculated using computer algorithms and controlled by the dispatcher's decisions, do not make a distinction between upstream and downstream network segments. The gas is transported flexibly to accommodate the capacity bookings from many different customers and the actual resulting gas flows. No bookings are made for market area interconnection points between two transmission system operators in the same market area. Rather, the flows at these points are subject to the general cooperation obligation of the transmission system operators, who flexibly withdraw or input gas quantities on the basis of various flow scenarios independent of bookings.
- 295 The aim of these considerations is not just to see if specific cost effects are associated with these forms of cooperation. What is more important is that they are an expression of a joint system control in the market area in which many activities can no longer be attributed to individual network users or network operators and specific gas flows can only be described virtually and no longer physically.
- 296 When, for example, the dispatching identifies and balances surplus and short supplies in various regions of the overall market area, the fact that it is impossible to allocate the dispatching costs

(such as personnel and IT infrastructure costs) is a problem in itself. The fact that it is no longer possible to rationally answer the question of the physical route of a quantity of gas through the overall network is even more problematic with respect to determining specific transport costs and thus making general statements about the costs of different forms of network use. When a customer's transport order is fulfilled, the dispatcher looks at all the entry and exit requests from all the customers in their entirety at market area level. At the same time, network sectors with a shortage are supplied with additional gas by adjacent systems while network sectors with a surplus are relieved of gas by adjacent systems. Also at the same time, the shortest physical connection between the points booked by the customer is also used for numerous other transport bookings in various directions and/or for dispatching measures.

(vi) Assessment of the complexity of the networks in benchmarking

- 297 The ruling chamber is well aware of the complexity of the market area, also from other processes. For instance, the Bundesnetzagentur recently carried out benchmarking of the transmission systems operators for the third regulatory period. In the course of data collection and plausibility checking of the comparison parameters for this procedure and during the resulting process of developing comparison parameters, the complexity of the network structures was discussed on several occasions, including deliberations on how this complexity could be reflected in numerically quantifiable parameters. Additional parameters were thus developed to reflect the network-related flexibility and complexity requirements. During the consultation, transmission system operators pointed out that each branch increases the pipe friction factor (in particular because regulators, valves etc are often installed at branches) and that, furthermore, the complexity of system control and the general need for system flexibility increases with the number of branches and mesh points. Consequently, data were collected on the number of branches per network operator and the number of independent mesh points.
- 298 As mentioned above, the numbers for these parameters (aggregated for the entire market area) are high (based on the assumption that the total numbers will not change when the two market areas are merged and can simply be added together, 7,615 branches and 1,298 mesh points).
- 299 In addition, it again became apparent during the benchmarking process that it is almost impossible for the transmission system operators to carry out appropriate allocation of measured load and energy values at jointly operated pipes. However, as discussed above, information on how these values are allocated is a prerequisite for further allocation of costs or a compensation mechanism with a separately applicable reference price methodology.
- 300 Moreover, it is in no way contradictory if certain technical parameters are taken as reliable cost drivers in the benchmarking while the complexity is seen as an obstacle to setting a more exact reference price methodology. Benchmarking as part of the incentive regulation scheme has a

completely different function than setting the reference price methodology. Incentive regulation does not look at the market area as a whole but at individual system operators, their individual cost structures and the actual physical gas flows. There is no question that the characteristics of the infrastructure operated by a transmission system operator are an important factor in the operator's individual costs. However, it is not each individual transmission system operator's costs that count here at all because gas is transported in the market area using more than just one individual transmission system operator's infrastructure. Furthermore, the benchmarking takes into account the technical parameters of pipeline volume, area, compressor capacity and the number of entry and exit points and therefore parameters that are not directly associated with bookings at points.

(vii) Complexity against the background of the market area merger on 1 October 2021

- 301 The above aspects, in conjunction with the Bundesnetzagentur's experience of the processes involved in former mergers and the impending merger of market areas, lead to the conclusion that the future German market area is characterised by a meshed structure and that the degree of meshing is so high that the uniform postage stamp reference price methodology constitutes the best possible approach to cost allocation and is justified in principle. These circumstances in particular show that distance as a cost driver and a function-specific assessment are not suitable as a means of allocating costs to individual entry and exit points, as a stable gas flow scenario would be required for that to be the case. The reality, however, is characterised by many different gas flow scenarios, which must be mastered with the aid of the complex market area.
- 302 All of these deliberations previously applied to the two smaller market areas, NCG and GASPOOL. They will be further intensified by the forthcoming merger of the market areas on 1 October 2021. By its nature, this merger will further increase complexity because of the large number of additional possible combinations of entry and exit points that will have to be taken into account.
- 303 The concluded administrative proceedings BK7-19/037 (KAP+, decision of 25 March 2020) and BK9-19/606 (KOMBI, decision of 30 March 2020) indicate that the allocation of transport services and transport infrastructure, and the costs connected with those, is likely to be fundamentally impossible, especially under the conditions of a united market area. These proceedings serve to enable the use of an oversubscription and buy-back scheme and a series of market-based instruments for a limited period of time as from 1 October 2021, with the aim of ensuring a high level of availability of FZK even if this cannot be secured with the technically available capacity alone.
- 304 The exact conditions of the oversubscription and buy-back scheme are set out in the KAP+ decision of 25 March 2020. A detailed description of the oversubscription and buy-back scheme (as at 1 October 2019), which was submitted as a joint concept by the transmission system

operators, is included in an annex to the KAP+ decision. In particular, the different instruments are described (MBIs in the form of VIP wheeling, third-party network use, spread product and capacity buy-back as a last resort). A more detailed description of the processes for the MBIs and the capacity buy-back (as at 21 November 2019) in the single market area is included in a second annex to the KAP+ decision.

305 The transmission system operators stated the following with respect to the MBIs (page 3 of the joint concept): "The MBIs have a market area-wide impact, ie they also affect TSO networks where they were not contracted. The demand for MBIs is created by congestion between today's GASPOOL and NCG market areas. These congestion situations are exogenous for the TSOs and cannot be controlled individually. This exogeneity is due to the fact that the congestion is caused by consumption or trade-driven factors. The congestions cannot be attributed to a single network operator, but occur systematically at the borders between today's German market areas, so consequently the costs associated with the procurement of MBIs cannot be assigned to one or several TSOs according to the principle of causation."

306 This decoupling of marketable capacity (enabled and secured through MBIs) and technical capacity enabled and secured through the infrastructure illustrates particularly clearly that it is not possible to make statements about the specific costs of a transmission service in a complex market area. This is true particularly in view of the fact that the costs of the individual MBIs are to be shared between all the transmission system operators, using each operator's share of the total allowed revenue as a general key.

(viii) Establishment of virtual interconnection points

307 Another aspect that illustrates the complexity of the market area is virtual interconnection points (VIPs). If two or more interconnection points connect the same two adjacent market areas, according to Article 19 sentence 1 (9) of Regulation (EU) 2017/459 the transmission system operators concerned must offer their available capacities there at a single VIP. This even applies if multiple transmission system operators are jointly affected by this at the same border, which is the case at various German external borders. This virtual merger of booking points, too, can only be resolved on the tariff side if the idea of a direct connection between a certain transmission service tariff and the costs of a quite specific physical transport path or the revenue cap of an individual participating transmission system operator is abandoned.

308 The table below lists all VIPs that have already been established at borders to adjacent foreign market areas, together with the date on which each VIP was established. It shows that most of the interconnection points concerned have already been integrated into VIPs. The merger of the German market areas on 1 October 2021 will result in the VIPs at the border with the Netherlands

and those at the border with Czechia being merged. It will also result in new or larger VIPs being established at the borders to the Belgian-Luxembourg and Danish market areas.

GASPOOL	PL	1 April 2016
GASPOOL	CZ	1 November 2018
NCG	CZ	1 March 2019
NCG	AT	1 March 2019
NCG	FR	1 March 2019
NCG	BeLux*	1 July 2019
NCG	CH	1 July 2019
NCG (H)	NL (H)	1 April 2020
NCG (L)	NL (L)	1 April 2020
GPL (H)	NL (H)	1 April 2020
GPL (L)	NL (L)	1 April 2020

(ix) Joint venture pipelines of the transmission system operators

309 Transmission system operators' joint venture pipelines are further evidence of both the limited informational value of individual transmission system operators' cost structures and the high degree of complexity of pipeline structures. The mere fact that in the past the same transport service at the same entry and exit points – assuming allocability between bookings and transport paths – was subject to different prices, depending on the operator from which the capacity was acquired, shows that the tariffs did not provide a reliable indication of actual transport costs. However, the way in which joint venture pipelines are operated also makes it impossible to allocate costs more accurately. Since the transmission system operators can use the shares of the other pipeline operators but the extent of this shared use is not recorded and – as established by the ruling chamber in the course of the proceedings concerning the rules for implementing appropriate (horizontal) cost allocation between transmission system operators and appropriate allocation of costs to entry and exit tariffs (BK9-13/607) – cannot be recorded, it is effectively impossible to determine the actual costs of transport using these pipelines. At the very least, the costs of the transmission system operator responsible for the capacity in each case, which are reflected in the operator's revenue cap, have no true informational value.

310 The fact that these differentiation problems can be solved in the benchmarking is irrelevant here. The benchmarking aims solely to set individual revenue caps on the basis of individual costs. This is possible because it is possible to determine the individual costs of each transmission system operator. However, this does not alter the fact that an operator's costs do not necessarily correspond to the costs of the capacity marketed by the operator. This problem has been solved in the benchmarking by essentially taking physical flows – if necessary estimated flows – and not bookings as the basis.

(x) Assessment of complexity

311 The updated and supplemented aspects compared with the consultation version of this decision support the view that the single German market area will be a highly complex system. These arguments are also substantiated by the quantitative analysis in the next section.

(2) Quantitative analysis of the German transmission system operators' networks

312 On the basis of ACER's recommendations, the ruling chamber has systematically analysed the networks of the German transmission system operators ("TSOs") using the following parameters relating to all bookable and orderable points:

- technically available capacity ("TAC")
- pipeline diameter (at each point)
- pressure (volume-weighted operating pressure)
- distance (using the capacity weighted distance prices as an indicator for the distances).

313 The analysis is based on the TSOs' forecasts of annual bookings at the time the single German market area is created. The analysis takes account of both entry and exit points grouped into the following point types, with a distinction also being made between interconnection points ("IP") and network connection points ("NCP"):

- cross-border interconnection points ("CIP", entry and exit)
- generation (entry only)
- storage (entry and exit)
- end users ("EU", exit only)
- internal orders ("IO", exit only).

314 Entry points at biogas or power-to-gas plants are not taken into account in the analysis because no network tariffs are payable at these points in Germany and because they account for only a marginal proportion of the total capacity of the transmission system (see section B.1.5.e)).

315 An analysis of unit costs (for example, how much it costs to transport 1 MWh over 1 km using a particular infrastructure) cannot be made directly on this basis, but can be made indirectly using these parameters, which reflect the relevant characteristics of the network structure.

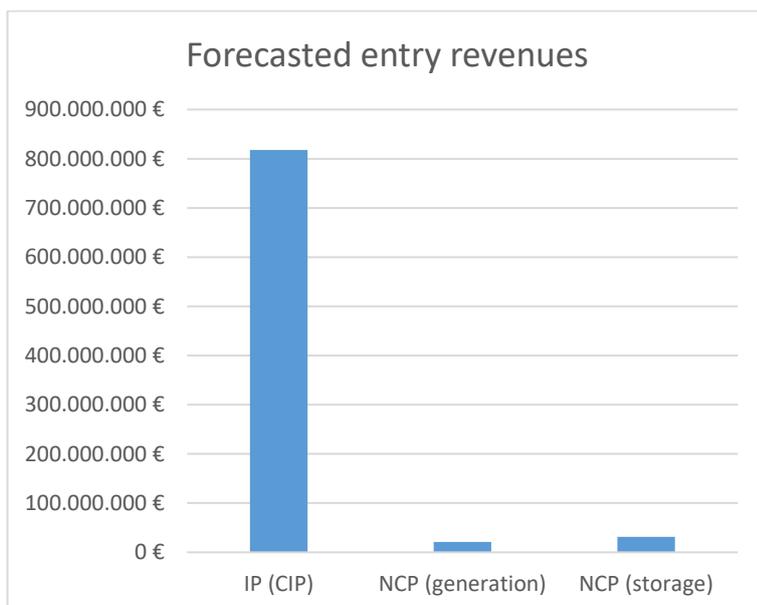
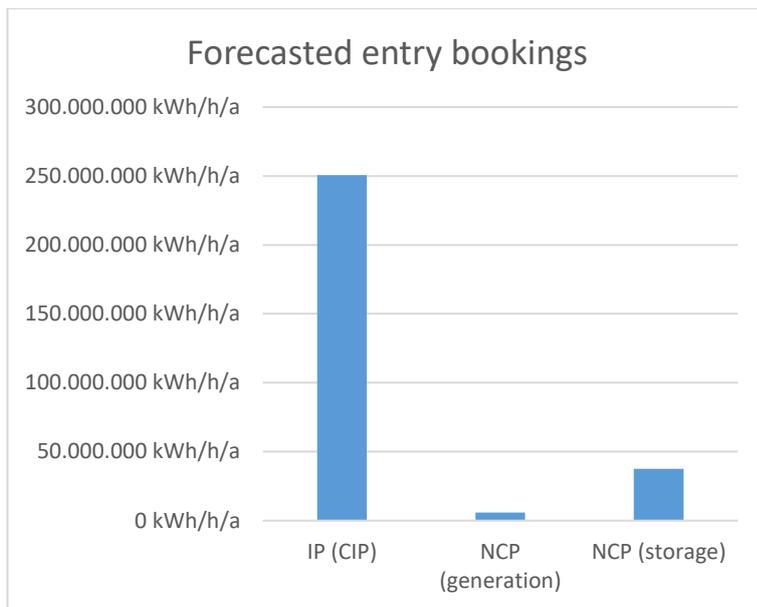
316 The unit costs listed in the DNV GL expert opinion (summarised on page 39 (German version) of the expert opinion) are familiar to the Bundesnetzagentur from the network development planning process (see determination of the costs for transmission pipelines in the consultation document "Gas Network Development Plan 2020-2030", page 152-3 (in German)) and the benchmarking process (cost driver analysis and benchmarking for gas transmission system operators, expert

opinion for the third regulatory period, page 35 and page 69 (in German)). However, even if the abstract costs are known, the basic problem remains that – even if the unit costs for the particular infrastructure could be determined – it would still be impossible to accurately allocate the infrastructure to one of the different forms of use (see sections B.I.5.b)(7)(ii), B.I.5.b)(8) and B.I.5.b)(9)).

(i) Distribution of bookings and revenue to individual point types

317 The charts below show first the revenue-covering bookings for each point type and second the revenue resulting from the uniform postage stamp reference price methodology for each point type. The sum of the revenue at the entry and exit points corresponds to the transmission services revenue of all German TSOs. Figures 7 and 8 show the data for the entry points and Figures 9 and 10 the data for the exit points.

318 *Figures 7 and 8:*

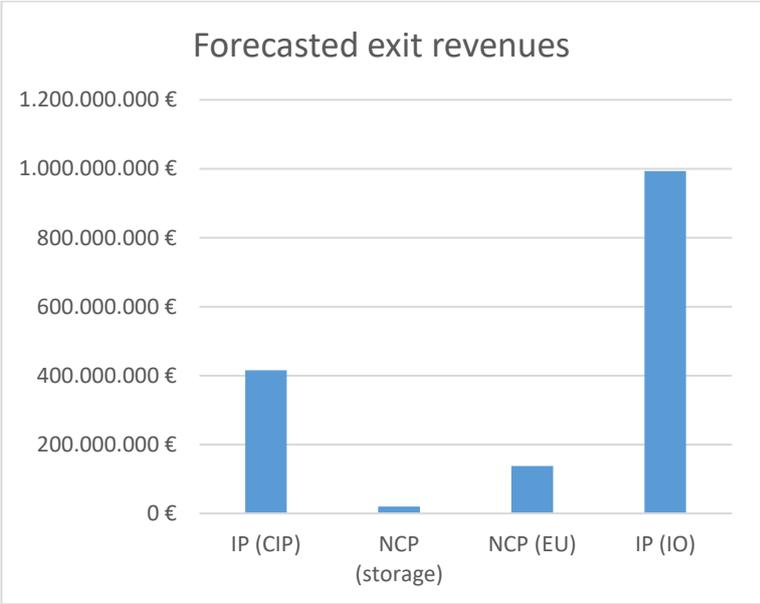
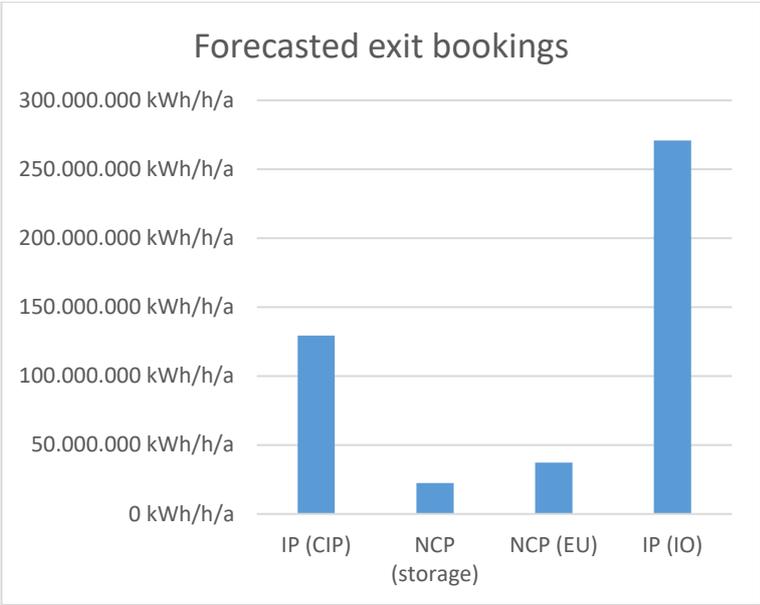


319 The cross-border interconnection points account for the vast majority of bookings at entry points. A 75% discount is applicable to entry points at storage facilities, resulting in a corresponding reduction in revenue.

320 In general, it is not possible to differentiate between bookings on the entry side because it is not possible to reasonably allocate bookings to either cross-system or intra-system network use. For an analysis differentiating between product types on the entry side, it would be necessary to examine each case individually to determine, for instance, whether DZK was used within or outside the allocation restriction. This is not possible, however, with forecasted data for the single market

area. Furthermore, the ruling chamber's analyses based on historical data have shown considerable usage outside the allocation restrictions (see section B.I.5.b)(4) and, for allocation issues, sections B.I.5.b)(7)(ii), B.I.5.b)(8) and B.I.5.b)(9)). The focus of the analyses will therefore be on the exit points. This corresponds to the approach taken by DNV GL, namely to make a differentiation only on the exit side.

321 *Figures 9 and 10:*

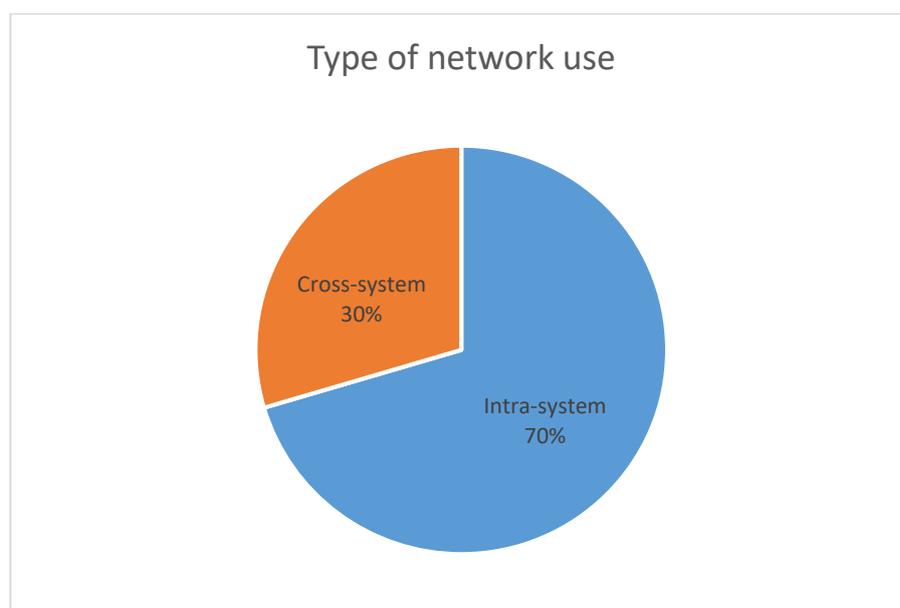


322 The situation on the exit side is more differentiated. Bookings and revenue are dominated by internal orders to downstream network operators. End users and storage facilities account for only

a small proportion of bookings and revenue. In addition, there is a clear reduction in revenue at storage facilities owing to the 75% discount.

323 The division into intra-system and cross-system network use shows that intra-system use accounts for a high proportion (70%) (see Figure 11). Intra-system network use is taken to comprise internal orders and end users, while cross-system network use corresponds to exit bookings at cross-border interconnection points. Allocation of the storage facilities is not relevant in this analysis because approximately the same ratio (70 to 30) would apply.

324 *Figure 11:*



325 The fact that intra-system network use accounts for the majority of bookings on the exit side explains why a higher proportion of the costs is allocated to intra-system use even though the proportions of gas transported for transit and for domestic supply are more or less the same. This imbalance in the postage stamp tariff system is also explained in section B.I.5.b)(7)(iii). This leads to a higher proportion of the costs being allocated to intra-system network use in relation to the system as a whole.

(ii) Analysis of the technically available capacity and the degree of utilisation

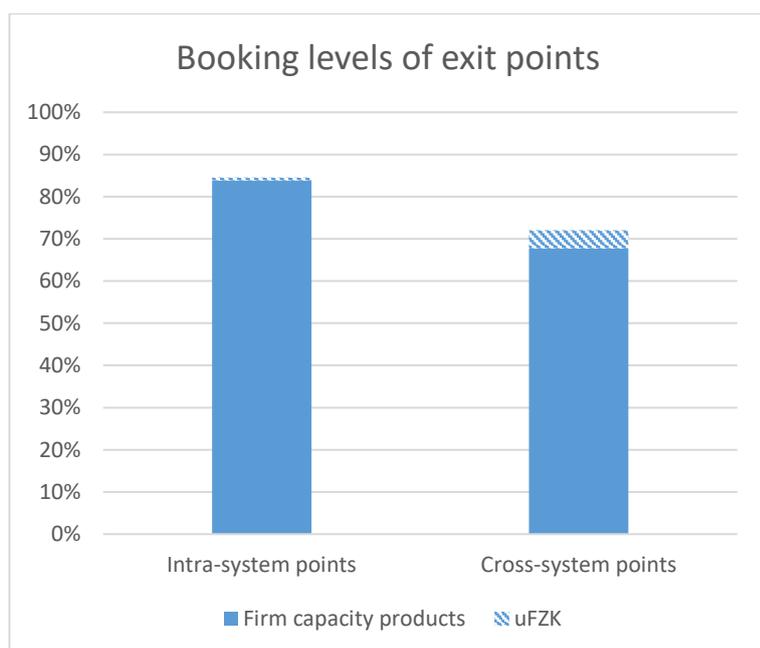
326 Discussions on the reference price methodology mostly assume booked capacity as the cost driver. The following analyses also examine the technically available capacity.

327 Here, the technically available capacity is taken to correspond to the maximum possible bookable capacity. This applies to all types of capacity, including conditional capacity products but excluding uFZK. If transport using firm capacity products is not possible, (an "infinite" amount of) uFZK is marketed and, if necessary, interrupted in addition to the technically available capacity.

328 The approximate booking level can be derived from the ratio of the total forecasted booked capacity to the technical capacity. A booking level of 100% means that the booked capacity equals the technical capacity or is greater than the technical capacity if uFZK is also marketed. The proportions for uFZK are therefore shown separately.

329 The following chart shows the booking level for the exit side calculated as described above. Storage facilities were not taken into account because they are used seasonally to the benefit of all network users.

330 *Figure 12:*



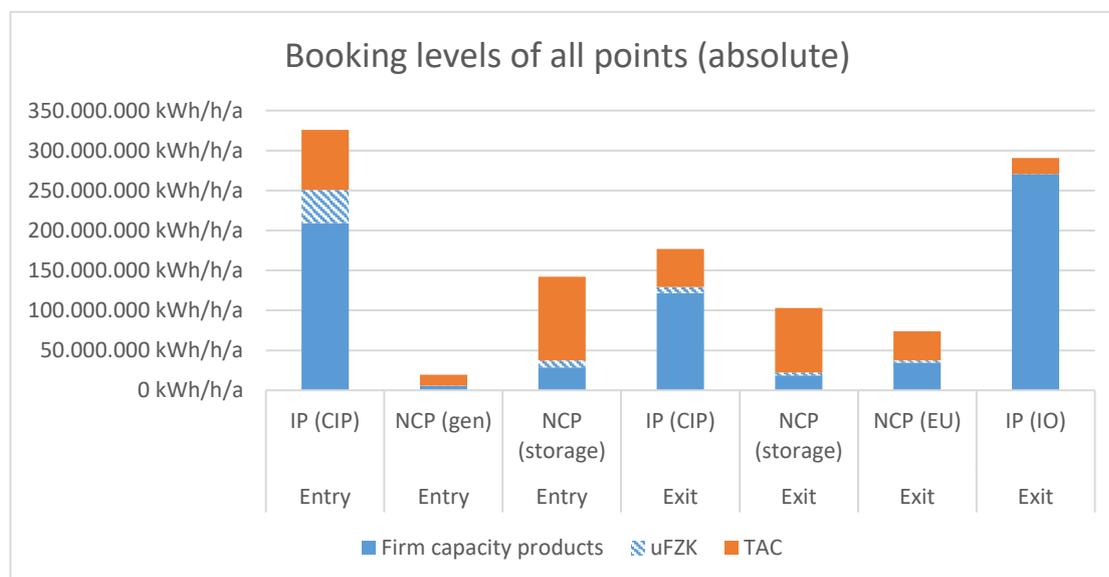
331 The chart shows a lower degree of utilisation for exit points associated with cross-system transport against a higher degree of utilisation for points associated with intra-system transport. These findings indicate systematic cross-subsidisation of cross-system bookings in contrast with a system in which cost allocation is based on the technically available capacity. In a tariff system in which cost allocation is based on the technically available capacity and not on forecasted bookings, higher tariffs would be payable for the under-utilised points. Based on the different degrees of under-utilisation shown above, a higher tariff would be payable for the cross-border interconnection points. Such a model would be possible, particularly since Article 5(1)(a) of Regulation (EU) 2017/460 specifies technically available capacity as a potential cost driver.

332 The approximate level of cross-subsidisation can be determined by comparing the revenue proportions for each point type given a uniform postage stamp (based on only the forecasted capacity bookings) with those based on the ratio of the technically available capacity for each point type to the total technically available capacity. In the case of the latter, the total transmission

services revenue would be allocated to the individual point types using the ratio of the technically available capacity for each point type to the total technically available capacity. The comparative calculation for intra-system and cross-system network use was made using the cost allocation assessment method in accordance with Article 5 of Regulation (EU) 2017/460. Accordingly, the figures for all entry bookings and for exit bookings at storage facilities were based on the proportion of clearly allocable exit bookings.

333 If the technically available capacity were used as the cost driver, the costs allocated to cross-system network use would be approximately €81m higher than those allocated using the uniform postage stamp reference price methodology. This becomes particularly clear in light of the low booking level for cross-system points compared with the booking level for intra-system points, as shown above. Consequently, if the technically available capacity were used as the cost driver, the individual risk of vacancy would be allocated more accurately. With the uniform postage stamp, by contrast, the vacancy costs of the cross-system points are borne in particular by internal orders, even though internal orders have virtually no vacancies. This can be seen in the right-hand column in the following chart. The absolute vacancies are illustrated by the orange sections at the top of each column.

334 *Figure 13:*



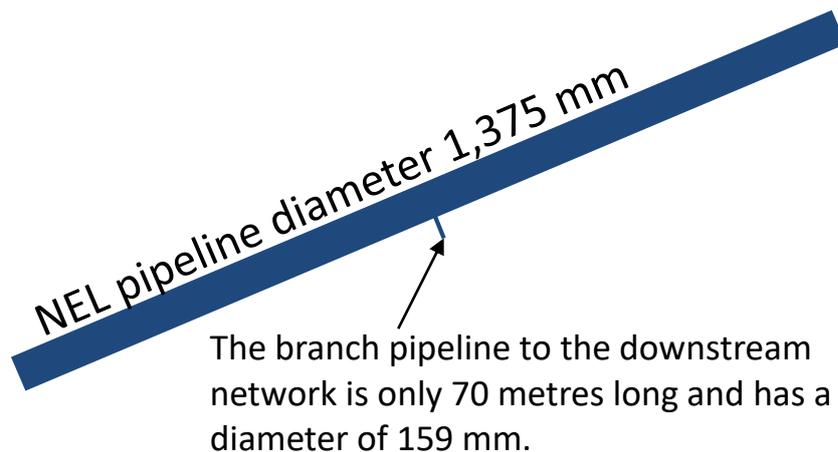
335 This aspect suggests that at least overall, say together with other effects such as taking account of distance as the cost driver (see section B.I.5.b)(2)(v)), there is no undue cross-subsidisation to the detriment of cross-system network use, or any such cross-subsidisation due to other aspects is compensated for in total.

(iii) Analysis of pipeline diameters

336 This section presents a systematic analysis of the pipeline diameters at different point types.

337 Some exit points to internal order and end user points are at smaller, very short (less than 500 m) pipelines that branch off from large pipelines. It should be noted that these exit points are allocated in the analysis to pipelines with smaller diameters. This inaccuracy in the method is illustrated below:

338 *Figure 14:*



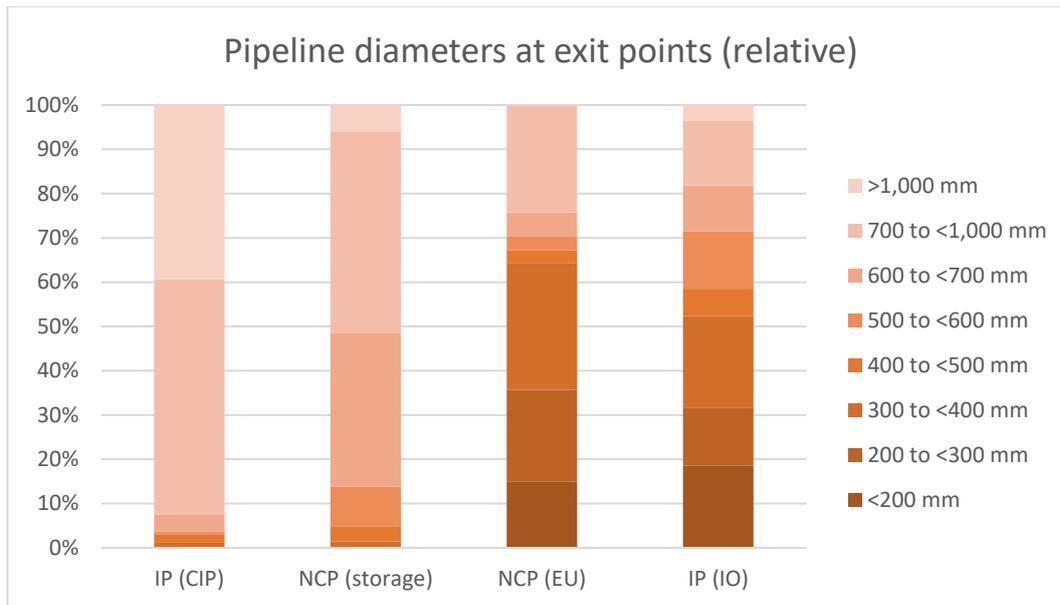
339 In this example, the exit point from the NEL to the downstream network is at a short branch pipeline (70 m) with a considerably smaller diameter of just 159 mm. In the following analysis, the exit points are all allocated to the smaller pipeline diameter range, irrespective of whether an exit point is at a short branch pipeline and, based on the costs of providing the gas service, should actually be allocated to a larger pipeline diameter range.

340 As the analysis of pressures (see below) is not affected by this, greater weight should be given to those results.

341 It should also be noted that a proportion of the costs for such branch pipelines may be recovered individually (through contributions for network connection costs) and the pipelines are therefore not fully financed through network tariffs or transmission services.

342 The following chart shows the proportion of each type of exit point allocated to each pipeline diameter range, based on the above allocation method. The points were weighted using the TSOs' forecasts of annual bookings at each point (using the non-weighted total number of bookings for all capacity products). The degree of data availability for all forecasted bookings was higher than 97%. It should be noted that it was not possible to allocate some cross-border interconnection points (virtual interconnection points) to a pipeline diameter range because of the lack of data. This is, however, negligible in light of the high degree of data availability of 97%.

343 *Figure 15:*



344 Most, but not all, of the exit bookings at cross-border interconnection points are for points in ranges above 700 mm. The DNV GL expert opinion recommends applying this as a cut-off limit to differentiate between networks within the market area. The cross-border interconnection points in ranges below 700 mm include major points such as Ellund (border to Denmark), Oude Statenzijl (border to the Netherlands) and Überackern (border to Austria).

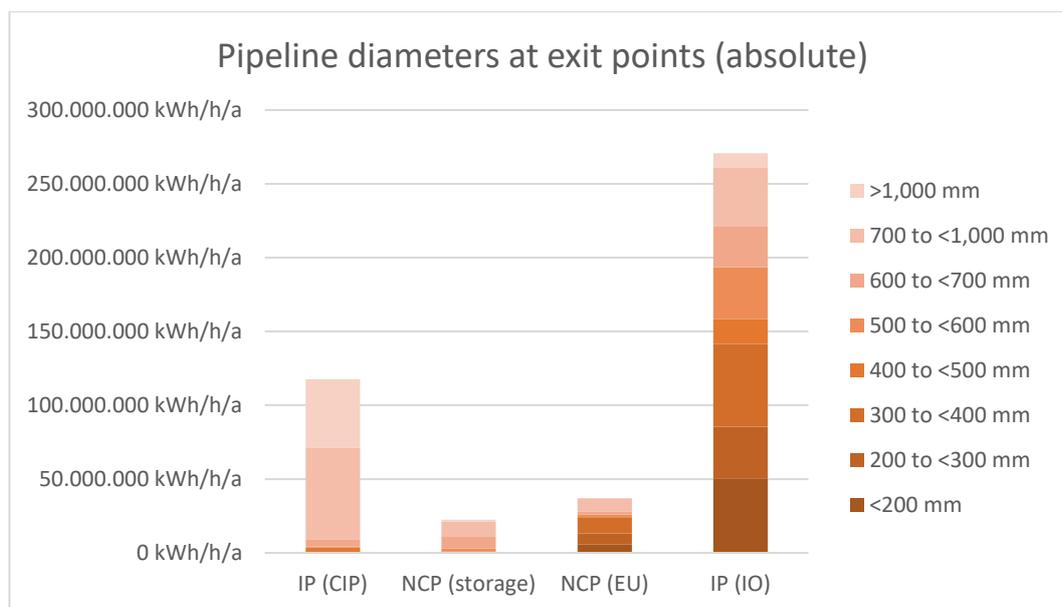
345 Barely half of the exit bookings for storage points are for pipelines with a diameter larger than 700 mm. This finding is significant because respondents to the consultation called for all such points to be allocated to cross-system use.

346 It can be concluded that a clear-cut allocation of cross-border interconnection points and storage points is not possible and that the recommendation in the DNV GL expert opinion and in some transmission system operators' responses to apply a cut-off limit and allocate all pipelines with a diameter smaller than 700 mm to intra-system use does not seem to be reasonable (in particular in light of the fact that storage facilities are to be allocated to cross-system use).

347 Furthermore, the analysis shows that end user and internal order points are not all located at very small pipelines, as assumed in the DNV GL expert opinion. End user and internal order points are located at a very wide range of pipelines, but there are indeed a considerable number in the range above 700 mm (defined in the DNV GL expert opinion as cross-system network use). Owing to the effect of the smaller branch pipelines to these booking points, the numbers shown are smaller than would actually be necessary based on the gas services provided. This becomes clear in the analysis of pressure ranges in the following section.

348 A further analysis is possible using absolute figures.

349 *Figure 16:*



350 The chart enables a comparison of the conditions at the individual point types as discussed above. The absolute figures show that while there are a number of bookings for internal order points at pipelines with large diameters, the number is still half that for cross-border interconnection points. Thus it does not seem to be appropriate to take a diametrically different approach for bookings at these internal order points than for bookings at cross-border interconnection points, as recommended in the DNV GL expert opinion.

351 Bookings for internal order points at pipelines with smaller diameters account for a substantial proportion of all exit bookings. This aspect should be included in an overall assessment for the choice of reference price methodology (taking into account the limited informational value of pipeline diameters).

(iv) Analysis of pressures

352 This section presents a systematic analysis of the pressures at different point types.

353 The ruling chamber took the pressure to be the volume-weighted operating pressure at each booking point. The figures were aggregated using the TSOs' forecasts of annual bookings at each point.

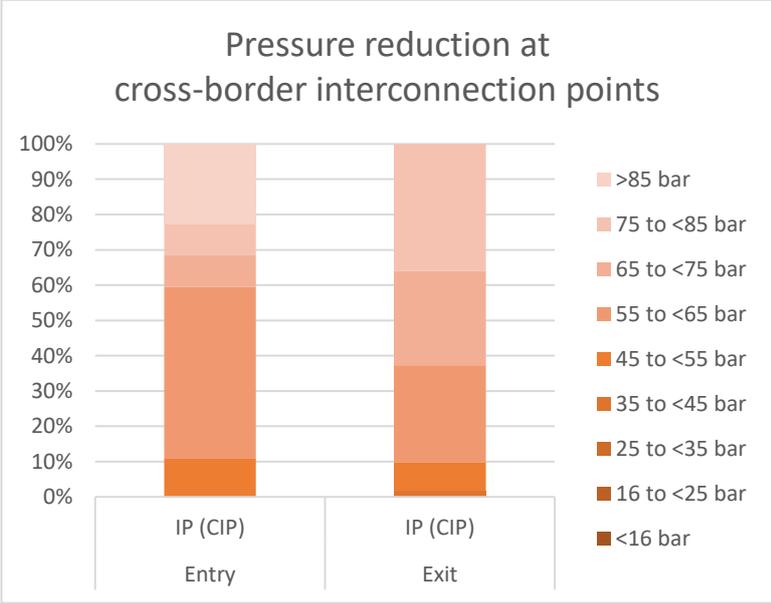
354 The pressures therefore have higher informational value than the pipeline diameters for analysing whether cross-system and intra-system booking points are in different ranges. There is generally no large decrease at branch pipelines in particular to internal exit points as is the case with the pipeline diameters. Thus this analysis is not subject to a similar inaccuracy in the method and greater weight is given to these results. However, it should be noted that the pressures measured in a meshed entry-exit system are only snapshot figures. The pressures decrease as the quantities

of gas transported increase and fluctuate considerably more when gas is not always supplied to an exit point from the same pipeline. In this respect, the ruling chamber considers it most appropriate to use a volume-weighted operating pressure averaged over one year as the comparative parameter.

355 Natural gas always flows from higher to lower pressure levels. Friction losses cause the pressure to decrease along the transport path, and it may therefore be necessary to re-increase the pressure along the transport path with intermediate compression. It follows that the pressures at entry points are higher than the pressures at exit points. This is shown in the following comparison of pressures on the entry and exit sides at cross-border interconnection points.

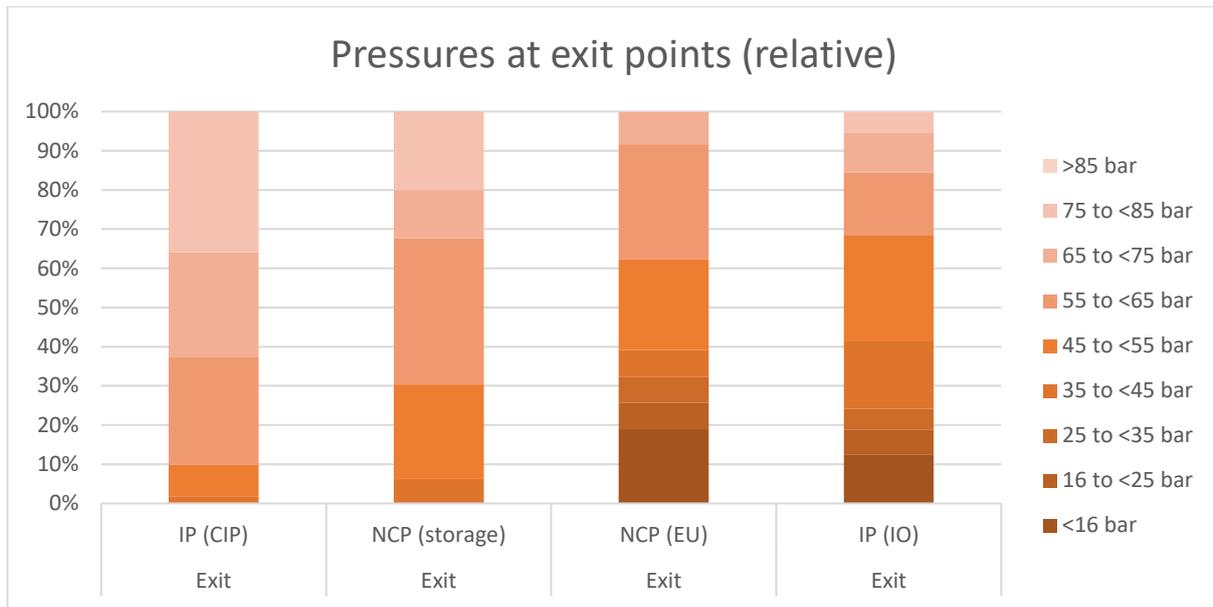
356 It should also be noted that the following analysis only includes exit points of the EUGAL pipeline because the entry point is technically not in operation (because the Nord Stream II pipeline has not yet been completed) (see section B.I.5.b)(4)(ii)). It was therefore not possible to include the entry capacity bookings in the following analyses of pressures. The degree of data availability for exit bookings, including the EUGAL pipeline operated on the exit side, was 97%. No data were available for some cross-border interconnection points (virtual interconnection points) (see above) as well as the EUGAL pipeline entry points.

357 *Figure 17:*



358 The following chart shows the proportion of each type of exit point allocated to each pressure range, based on the booking forecasts for each point, and enables a comparison between the different point types.

359 *Figure 18:*



360 While the DNV GL expert opinion recommends applying a cut-off diameter of 700 mm for comparative assessments, there is no specific recommendation for pressure ranges. In fact, the expert opinion states that the HD 3 pressure range (16-70 bar) is to be allocated to both cross-system and intra-system network use. It specifies 40-60 bar and 60 bar as cut-offs. The following analyses therefore apply a cut-off of 55 bar.

361 Most, but not all, of the exit bookings at cross-border interconnection points are for points with an average operating pressure above 55 bar. The points with an average operating pressure below 55 bar include major cross-border interconnection points such as Deutschneudorf (border to Czechia), Überackern (border to Austria) and the GCP GAZ-SYSTEM/ONTRAS VIP (border to Poland). In total, just under 10% of the forecasted exit bookings for cross-border interconnection points are for points in this pressure range. In addition, nearly 11% of the forecasted entry bookings for cross-border interconnection points are for points with an average operating pressure below 55 bar (see Figure 17). These bookings include bookings for major entry points such as Emden (border to Norway), Überackern (border to Austria) and Waidhaus (border to Czechia).

362 Furthermore, over 30% of the exit bookings for storage points are for points with an average operating pressure below 55 bar.

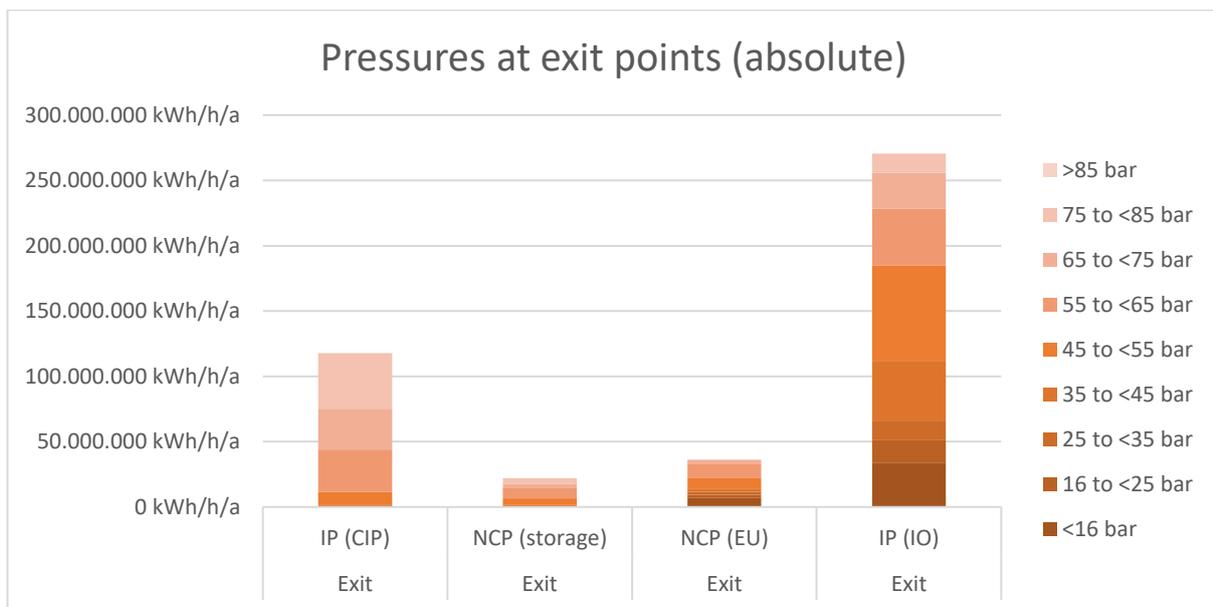
363 It can be concluded that a clear-cut allocation of cross-border interconnection points and storage points according to pressures is not possible either. At least, the proposed cut-off of 40-60 bar or 55 bar would lead to a considerable number of cross-border interconnection points and storage points being misallocated.

364 The effect mentioned of smaller branch pipelines for exit bookings at end user and internal order points is largely corrected in the analysis based on average operating pressures. It can be seen that a considerable proportion of bookings for end users (over 37%) and internal orders (nearly 32%) are for pipeline systems in the upper pressure range. These bookings would also be misallocated if the recommended cut-offs were applied.

365 Finally, an analysis can be made of which bookings are in particularly low pressure ranges. A possible cut-off in this case is 16 bar, as specified in the High-Pressure Gas Pipeline Ordinance (GasHDrLtgV). However, only a small proportion of bookings for internal orders (13%) and end users (approximately 19%) are in this range below 16 bar. The system costs associated with these exit points, which may be higher, should be included in the overall assessment for a reference price methodology.

366 A further analysis can be made by comparing the absolute figures for the pressure ranges.

367 *Figure 19:*



368 As with the pipeline diameters, the chart enables a comparison of the conditions at the individual point types as discussed above.

369 Here again, the absolute figures show that there are a considerable number of bookings for internal order and end user points with a pressure above 55 bar. These booking forecasts – with the exception of just under 7,000,000 kWh/h/a – correspond to the forecasted exit bookings at cross-border interconnection points in the same pressure range (55 bar and above). Thus it does not seem to be appropriate to take a diametrically different approach for bookings at these internal order and end user points than for bookings at cross-border interconnection points.

370 Bookings for internal order points in lower pressure ranges (below 55 bar) account for a substantial proportion of all exit bookings. This aspect should be included in an overall assessment for the choice of reference price methodology, should it involve higher system costs.

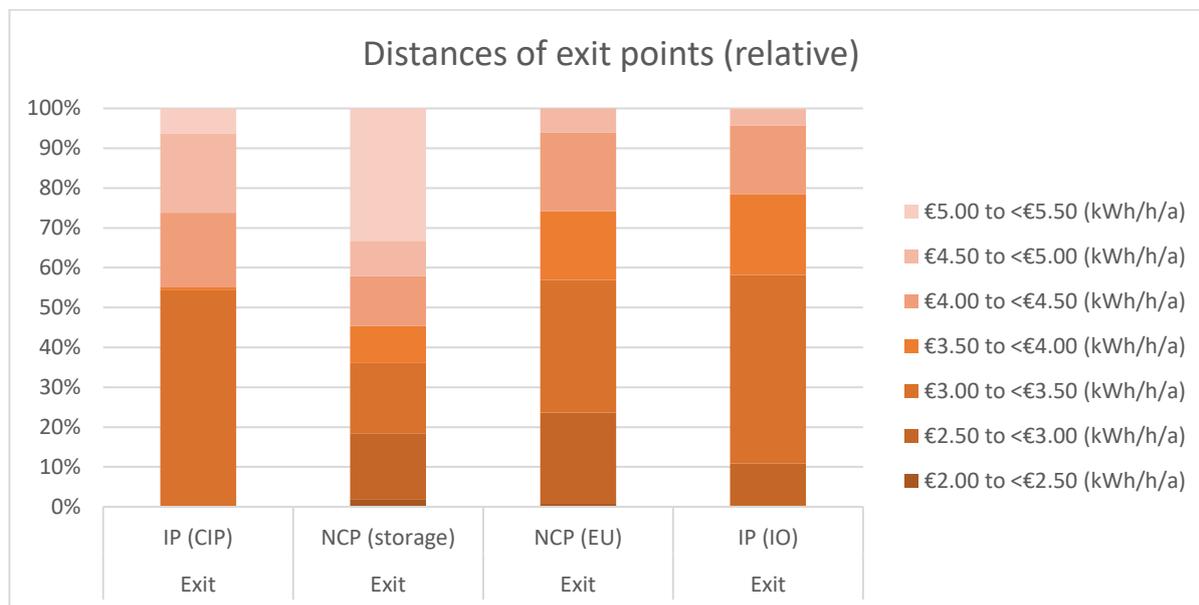
371 However, only around 13.5% of all forecasted exit bookings analysed are in the range below 16 bar. Only around 6% of all forecasted bookings are in the range below 16 bar. These figures speak against infrastructure being differentiated on the basis of these exit bookings.

(v) Analysis of distances

372 This section presents an analysis of the distances at different point types. The analysis uses the capacity weighted distance prices weighted with the forecasted bookings as a proxy for the distance. These prices are used with a capacity-weighted entry-exit split of 37/63. High capacity weighted distance prices represent a long distance between an exit point and the transport-relevant entry points.

373 The following chart shows a breakdown of the distances (capacity weighted prices) of the forecasted bookings for each point type on the exit side.

374 *Figure 20:*



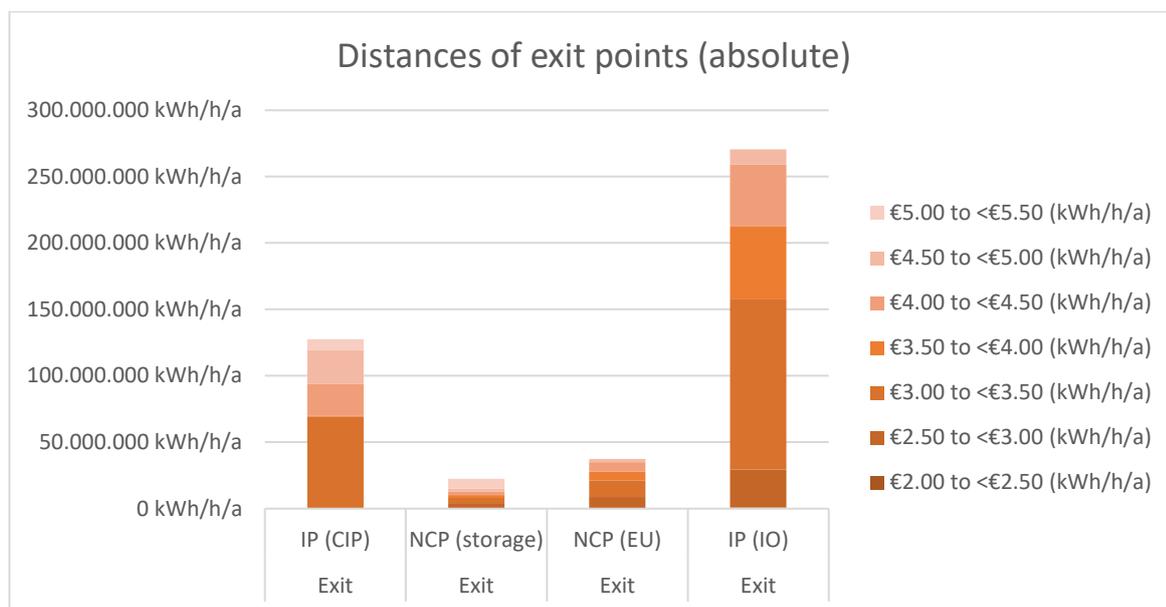
375 The chart immediately shows a tendency for longer distances to the transport-relevant entry points at around half of the cross-border interconnection points on the exit side. There is an even higher proportion of longer distances at storage points on the exit side. There is a much smaller proportion of such long distances at points to end users and downstream networks. This makes sense in light of the structure of the network, with shorter distances between the main domestic supply points and the relevant entry points than between entry points and cross-border interconnection points for transit flows.

376 Storage points on the exit side have the longest distances. This is relevant in that several respondents called for these points to be allocated to an overarching network (irrespective of how they were connected and where they were located) and thus continue to be subject to lower prices.

377 The findings suggest that there would be a large shift in costs to cross-border and storage points if distance were used as the cost driver.

378 The following chart enables a comparison of the absolute figures for the weighted distances for each point type.

379 *Figure 21:*



380 The chart clearly shows that internal orders, which account for the majority of total revenue, have a particularly high number of bookings with short distances (capacity weighted distance prices below €3.50/kWh/h/a). These points have systematically lower network costs because significantly fewer pipeline kilometres are needed. This is an important point that counteracts any other effects (potentially higher costs due to lower pressures or smaller pipeline diameters at these points).

381 The findings are in line with the cost allocation assessment in accordance with Article 5 of Regulation (EU) 2017/460. Here, cross-system network use was attributed a higher proportion of the costs because of the longer distances (see section B.I.5.e)).

(vi) Overall assessment of the quantitative analysis

382 The analysis indicated several key aspects that speak for a uniform postage stamp.

383 In an example calculation, the proposal put forward by DNV GL in the proceedings would result in costs of around €280m to €300m being shifted from cross-system to intra-system network use. In the first step of the calculations, the ruling chamber used the division of costs between the cross-

system and the "internal" network as put forward by DNV GL but not supported by the ruling chamber (cross-system network costs of 66.7% for TSOs in the GASPOOL market area and 65.5% for TSOs in the NCG market area). This division is based on a pipeline diameter cut-off of 700 mm to differentiate between the networks. The analysis showed that this cut-off is not appropriate. Nevertheless, these figures were transferred to the single market area for the purposes of the example calculation. Irrespective of how the exit points at storage facilities are allocated (see section B.I.4), the example calculation carried out in accordance with Article 5 of Regulation (EU) 2017/460 results in a decrease of around €280m to €300m (see above) in the costs allocated to cross-system network use compared to the uniform postage stamp reference price methodology. The proposal does not take account of, for example, the systematic differences in the degree of utilisation and associated effects in cost allocation, although it is said to be more cost-reflective.

384 By contrast, the results of the analysis suggest that applying the uniform postage stamp would not result in an unreasonable proportion of the costs being allocated to cross-system network use. Thus it is not appropriate to differentiate between networks using the criteria proposed in the consultation.

- Intra-system network use is already allocated around 70% of the total costs although only around 50% of the gas injected is for domestic supply.
- Intra-system network use is allocated a disproportionately high share of the vacancy costs with a uniform postage stamp. The cross-subsidisation amounts to around €81m.
- A low proportion of cross-border interconnection points but a significant proportion of storage points (around 50%) are located at pipelines with a diameter smaller than 700 mm.
- Despite systematically allocating booking points for cross-system network use to smaller pipeline diameter ranges (compared with an allocation based on the costs of providing the gas services), there are still half as many forecasted bookings for storage points in ranges above 700 mm as for cross-border interconnection points (based on absolute figures). Unequal treatment of these bookings is not justified. Pipeline diameter is therefore not an appropriate criterion for differentiating between cross-system and intra-system network use.
- The analysis of pressure ranges showed that a small proportion of exit bookings for cross-border interconnection points are for points with a pressure below 55 bar. The proportion in the case of storage points is over 30%, which firmly speaks against allocating all storage points to cross-system network use (as proposed, however, by various respondents). However, a lower cut-off would in turn result in an increase in the proportion of bookings for end user and internal order points that would be above this cut-off point.

- Considerable proportions of end user and internal order bookings are for points in higher pressure ranges. Based on absolute figures, these forecasted bookings roughly equal the corresponding proportion of exit bookings at cross-border interconnection points. Blanket unequal treatment compared to the cross-border interconnection points is not appropriate in this case. It follows that a certain pressure cut-off is not an appropriate criterion for differentiating between cross-system and intra-system network use.
- The analysis of distances showed that this cost driver would result in a higher proportion of the costs being allocated to cross-system network use compared with the uniform postage stamp reference price methodology. If there were a move away from the uniform postage stamp, it would not be appropriate to use other aspects in isolation and not to take account of the cost driver of distance.

385 A few aspects support the criticism of the uniform postage stamp. However, they do not seem to be of such weight that there should be a move away from the uniform postage stamp.

- A significant proportion of internal order bookings are for smaller pipeline diameter ranges. However, the criterion of diameter and in particular the cut-off of 700 mm should be viewed critically and is of limited informational value.
- A small proportion (6% of all bookings) are in the range below 16 bar. These proportions do not seem to be of such weight that they could represent the supposed massive cross-subsidisation.

386 However, the assessment of whether or not the choice of the uniform postage stamp reference price methodology leads to significant cross-subsidisation of intra-system network use by cross-system network use must also take account of the considerably higher costs borne (in the uniform postage stamp system) through the network usage tariffs. Based on the revenue from the forecasted exit bookings, end users and internal orders contribute 2.7 times as much as cross-border interconnection points to covering the network costs. This significant positive contribution to reducing the costs allocated to cross-border interconnection points must not be disregarded in the assessment.

387 On the basis of these findings, the ruling chamber still considers the uniform postage stamp reference price methodology to be appropriate.

(3) Regional networks

388 In addition to the quantitative analysis, the ruling chamber has taken consideration of ACER's recommendations concerning regional networks. According to the provisional definition provided by ACER, regional networks are high-pressure networks that are used exclusively for domestic

supply and that cannot be used to flow gas to cross-border interconnection points (ACER report of 17 July 2020, footnote 32).

(i) Definition of regional networks

389 The problem with these recommendations is that they are based on a provisional status of discussions with respect to the interpretation of the terms of transmission system operator and distribution system operator. ACER also stated that it would carry out a process, involving the national regulatory authorities and the European Commission, to develop a definition of regional networks together with recommendations on how to deal with these networks. In light of this, there is currently no indication whether the proposed definition will apply or whether or not implementing the definition will make it necessary to amend, firstly, the relevant European legislation and, secondly, national legislation. Even in the current proceedings, ACER has already softened its proposed definition by noting that the criteria put forward in the DNV GL expert opinion could also be used to identify regional networks (see ACER report of 17 July 2020, footnote 32). ACER refers here to the alternative approach developed by DNV GL on the basis of indicators or functional roles. However, this reference is inconsistent with ACER's comment elsewhere that DNV GL's indicator-based assessment is not appropriate because it is linked to random ownership structures (ACER report of 17 July 2020, margin no 52).

390 The provisions of this decision apply abstractly to all transmission system operators active in the single German market area. Separating off individual pipeline sections and moving them into distribution, as called for by ACER, is not provided for by the legal basis underlying this decision, nor would it likely be within the ruling chamber's scope of responsibility. In addition, the quantitative analysis supports the assumption that such a separation is not necessary in light of the appropriateness of the tariffication method.

391 This view is supported by the results of the consultation: It was found that there was no legal provision for differentiating regional networks. In addition, intra-system and cross-system network use were said to be closely interconnected particularly in the German system.

392 The ruling chamber shares the view that separating off all the suggested regional networks is not appropriate given the required functional differentiation, particularly since Regulation (EU) 2017/460 explicitly specifies intra-system network use, which in some respects can be taken to be a synonym for regional networks, as part of the transmission system functions. Finally, the ruling chamber is not aware of any cases in which networks that are "primarily used in the context of local distribution of natural gas, with a view to its delivery to customers" (Article 2(1) point 1 of Regulation (EC) No 715/2009) are part of the German transmission networks.

(ii) Assessment of unit costs

- 393 With respect to the suggested regional networks, the ruling chamber does not share the view that an assessment of unit costs should be based solely on such parts of the network. Accordingly, the ruling chamber made a comprehensive quantitative analysis of all parts of the transmission system (see above). The analysis also explored the fact that aspects such as vacancy and distance are correlated to differences in cost allocation in all parts of the network.
- 394 In addition, the ruling chamber does not share ACER's view that a clear-cut cost allocation is required with respect to these supposed higher costs alone. Should an attempt at such cost allocation be made, it should be done universally. This means that costs for parts of the network in which, conversely, gas cannot flow to domestic customers would need to be separated off accordingly. The same would apply to compressor costs and other cost components only required for transit flows. Furthermore, as mentioned, it would be appropriate to make a further differentiation in the cost allocation between vacancy and distance. It would not be appropriate in this context to take individual aspects – such as gas pipelines in which gas can physically only flow to domestic customers – as a basis.
- 395 Moreover, it is unclear what ACER means by "unit costs". In the ruling chamber's understanding, ACER's first step would be to allocate the German transmission system infrastructure and its costs to one of the two transport functions "cross-system use" and "intra-system use" as accurately as possible. The second, decisive step would then be to examine whether the revenue for each transport function as determined using the specific reference price methodology is higher or lower than the costs allocated to the respective transport function. If this were the case, ACER would assume that the tariffs were not cost-reflective or that cross-subsidisation was taking place.
- 396 For this approach, it must be possible to accurately allocate network components and their costs to one of the two transport functions "cross-system use" and "intra-system use". As described in the previous sections, this is not possible in the case of the German transmission system infrastructure, for one reason because of the highly meshed structure and changing directions of flow. In fact, a clear-cut allocation of the transmission system infrastructure between the transport functions of "cross-system use" and "intra-system use" is possible in virtually no European transmission system. This is one of the reasons why, when developing the framework guideline tariffs, the matrix method, which provides for this accurate allocation of infrastructure and its costs to transport routes and transport functions (albeit very abstractly), was considered to be appropriate and at all feasible in only a few exceptional cases.
- 397 If an attempt is nevertheless made to allocate transmission system infrastructure and its costs between the two transport functions "cross-system use" and "intra-system use", even though direct allocation is not possible, it can only be made using blanket criteria. The analysis presented in section B.I.5.b)(2) has shown that none of the proposed criteria (pressure, diameter, distance) can

reasonably be used for the German transmission system or lead to a reasonably accurate differentiation.

(4) Conditional firm capacity products

398 Another aspect that can speak for or against the complexity of the transmission systems is the availability and share of conditional firm capacity products.

(i) Share of conditional firm capacity products

399 To be able to address this aspect in more detail, the ruling chamber evaluated the shares of these capacity bookings. Annex 6 shows the technically available capacity and the forecasted booked capacity for the different point and capacity product types for 2021. The types of capacity product comprise FZK, bFZK and DZK as well as interruptible bookings (uFZK). The booking levels for each product type available at each point type are shown in separate lines. The technically available capacity for each product type at each point type (eg entry CIP) is shown as a proportion of the total technically available capacity for the point type. The proportions of the technically available capacity were calculated without taking account of the interruptible capacity bookings because interruptible capacity can be provided irrespective of the technical capability of the network. This calculation method enables a rational, neutral analysis of the proportions because it analyses the maximum amount of capacity that the transmission system operators can offer to the market irrespective of the specific market demand for particular capacity products. This, in conjunction with a purely technical analysis of the network structure with respect to product shares, is more appropriate than a comparison of capacity forecasts. In this connection, the different booking levels (see also section B.I.5.b)(2)(ii)) for each point type and product type are shown for reasons of transparency.

400 Several conclusions can be drawn from the data. For instance, it is a fact that conditional firm capacity products (the sum of bFZK and DZK) account for a considerable proportion of the total technically available capacity at certain point types. These products account for around 55% at interconnection points on the entry side and around 57% at interconnection points on the exit side. The analysis of the technically available capacity makes it clear that while these products account for a not insignificant proportion, the technical network structure is nevertheless characterised just as much by FZK products. Unlike an analysis based only on capacity forecasts, this analysis shows that the proportions of conditional firm products at the interconnection points do not vastly dominate the network structure. In contrast, such products account for no bookings for internal orders to downstream network operators and for only a very small proportion (about 3%) of bookings for end users. Unlike with cross-border interconnection points, there are no large

differences between the proportions calculated here and in an analysis based on capacity forecasts because of the lack of alternative conditional capacity products for internal orders.

401 The data also show that bFZK and DZK account for a considerable proportion of the technically available capacity at entry and exit points to and from storage facilities (around 72% on the entry side and 50% on the exit side). However, these products at storage facilities are reflected in part by the benchmarking according to operative parts 3.a) and 3.b) and are therefore not covered by the scope of the reference price methodology. Furthermore, the storage discount is applicable.

402 To summarise: conditional firm capacity products and FZK products account for a similar proportion of the technically available capacity at interconnection points and storage points. The proportion at domestic exit points is much smaller.

403 The analyses in this section relate to the whole market area and aggregated data according to the point types. An analysis of specific pipelines may result in individual differences in proportions, as discussed in the next section.

404 The ruling chamber is of the firm opinion that these facts cannot be used to make the assumption that, based on the proportion of conditional firm capacity products, there is only a low degree of complexity and/or meshing in the German market area. Viewing the situation as a whole, this is evident from the very fact that a significant proportion of the technically available capacity at the entry points and the vast majority of the technically available capacity at the exit points are accounted for by FZK products. These products account for around 41% on the entry side and around 76% on the exit side. The market area is thus characterised, in particular because of the conditions on the exit side, by the use of FZK by means of which liquid markets are created. It is therefore also mandatory for transmission system operators to collaborate when carrying out capacity calculations and load flow simulations, with the aim of maximising technical capacities and offering a sufficient amount of freely allocable capacities (see section 9(2) and (3) GasNZV and the current deliberations on the creation of an oversubscription system and the introduction of market-based instruments to increase the capacity offer).

405 If conditional firm capacity products are offered at a so-called transit pipeline, it follows that the complexity of the market area to which this pipeline is allocated is such that it is simply impossible for FZK products to be offered. Also, given this situation, the question is ultimately not whether an individual pipeline is complex or not but whether the entire system is complex.

406 The question also arises as to which conclusions about the costs of cross-system and intra-system network use should actually be drawn from the conditional capacity products. Even with DZK, it is not the transport from A to B via a specific pipeline that is booked but only the input at one end of the market area and the offtake at another, exactly defined end. What happens in between is just as undefined as with an FZK product. The entry and exit requests are fulfilled efficiently taking

account of all simultaneous entry and exit requests, by using all the technical capabilities available in the market area (in particular the large number of existing connections/transfer possibilities between the transmission system operators' pipelines), optimising all the gas flows, netting transport requests, etc. As a result, it is often the case that a transport request is fulfilled physically on the basis of the firm component of a DZK product not via a specific pipeline but taking account of all the infrastructure within the market area in line with the principle of the minimum physical transport needs.

(ii) Assessment of individual pipeline systems with respect to conditional firm capacity products

407 Despite receiving repeated comments on this matter in the context of previous and ongoing proceedings, the ruling chamber could not be convinced that concrete evidence had been produced to the effect that pipelines exclusively used for transit actually existed. In point of fact, every pipeline is always integrated into the market area. Even for network operators who exclusively run so-called transit pipelines, certain aspects certainly indicate that they are sufficiently integrated into the complex market area:

408 Fluxys Deutschland GmbH, for instance, operates the NEL pipeline (jointly with NEL Gastransport GmbH and Gasunie Deutschland Transport GmbH), exclusively for DZK. However, it is not at all the case that this pipeline only has one point-to-point connection from Greifswald to the Achim II interconnection point. In fact, there is also a DZK product available that can be combined with numerous exit points in the GASCADE Gastransport GmbH transmission system, including the Rehden storage facility. This demonstrates how such a pipeline is integrated into the market area, at least to some extent. The same applies to NEL Gastransport GmbH, which also uses the pipeline and in addition offers possible combinations with points belonging to the network operators Gasunie Deutschland Transport Services GmbH and GASCADE Gastransport GmbH. The integration into the German market area becomes even clearer in light of the capacity share of Gasunie Deutschland Transport GmbH, which only offers FZK on this pipeline (around 23% of the pipeline's technically available capacity). This makes it clear that, looking across all the transmission system operators, the pipeline is integrated into the whole market area.

409 The integration of the NEL in the sense of ultimately intra-system network use was also presented in detail in responses in the consultation process, which supports this interpretation. Another example is Fluxys TENP GmbH, where roughly 29% of bookings are conditional firm capacity products and 60% FZK. These proportions alone show that this pipeline, too, is fully integrated into the market area. In addition, in the past investment measures have been implemented on the TENP pipeline, and others are either planned or being implemented, with the aim of creating capacities in a south-north direction as well. This is another aspect illustrating a certain degree of

complexity of this pipeline. A deodorisation plant is due to enter operation in the course of 2020, which will then enable natural gas to be imported to Germany from the south (Italy, Switzerland and France) as well as from the north (the Netherlands and Norway). This is meant to increase the flexibility of natural gas imports in line with needs, and in addition to diversifying gas markets is particularly aimed at ensuring the security of supply of natural gas for Baden-Württemberg and supporting the network conversion from L-gas to H-gas in north-west Germany by providing additional gas imports into south-west Germany. These aspects show that even a pipeline such as the TENP cannot be categorised solely as a transit pipeline. In addition, Open Grid Europe GmbH also markets capacity, including FZK, on the TENP.

410 Likewise, although GRTgaz Deutschland GmbH markets a high proportion of conditional firm capacity products on the MEGAL pipeline (around 52%), 38% of the forecasted bookings are for FZK. However, this also shows that at the same time a not insignificant proportion of all firm capacity in the market area is freely allocable. With respect to the current actual use of conditional firm capacity products on the MEGAL, the ruling chamber made more detailed analyses on the basis of published data from GRTgaz Deutschland GmbH on the occasion of the more extensive discussions during the judicial proceedings against the REGENT-NCG determination (decision of 29 March 2019, BK9-18/610-NCG). It was found that DZK products are by no means used exclusively within the fixed element in the sense of a point-to-point connection, but in fact are used regularly and to significant extents for transport to other points in the market area (using further infrastructure from other network operators). With respect to the Waidhaus interconnection point, it was found that the majority of entry bookings at the interconnection point ("old contracts" not for the VIP) in the period from January 2019 to May 2020 could not be fulfilled using only the GRTgaz Deutschland GmbH network. The gas was transported further via networks of other transmission system operators in the NCG market area. In addition, Open Grid Europe GmbH also markets capacity, including FZK, on the MEGAL.

411 From the above it is clear that there are no pipelines that can be categorised as for transit only, and despite the proportion of conditional firm capacity products they are fundamentally integrated into the market area. It is not possible to draw any conclusions from this that the market area is assessed as having a low degree of complexity.

412 Insofar as no freely allocable capacities are marketed on the OPAL pipeline by the transmission system operators OPAL Gastransport GmbH & Co. KG and Lubmin-Brandov Gastransport GmbH, this is a special case, partly related to the pipeline's substantial exemption under section 28a EnWG. Consequently, the point-to point transit connection in this case is exempt from the regulation anyway. Both transmission system operators exclusively offer DZK for the Lubmin entry point on the OPAL pipeline, with a usage restriction. Usage is restricted due to the possibility of transfer to the adjacent transmission systems in Groß Körös, operated by the

market area-wide network operators GASCADE Gastransport GmbH and ONTRAS – VNG Gastransport GmbH, another situation offering proof of a degree of integration into the market area.

- 413 In addition, the EUGAL pipeline started operation on 1 January 2020. The pipeline runs parallel to the OPAL pipeline, and the ruling chamber is of the firm opinion that the pipeline is likewise sufficiently integrated into the market area. The structure of the owners of the pipeline, comprising the transmission system operators GASCADE Gastransport GmbH, Fluxys Deutschland GmbH, Gasunie Deutschland Transport Services GmbH and ONTRAS Gastransport GmbH, is already an indication of this. Furthermore, the following is stated by GASCADE Gastransport GmbH and on the EUGAL website under the question "Will EUGAL be a pure transit pipeline?": "EUGAL closes existing gaps in natural gas demand and transport and ensures that the German and European natural gas network is more robust and flexible. A reliable energy hub in the middle of Europe. The direct connection to the existing natural gas pipelines JAGAL and NEL and the indirect connection to NETRA mean that EUGAL can transport natural gas flexibly within Germany in all directions, thus significantly increasing network stability and supply security in Germany and Europe."
- 414 With respect to the DZK marketed on the EUGAL, it was said in the course of the consultation that DZK was only used within the allocation restriction. However, this was only supported by a reference to the relevant supplementary terms and conditions, which state the allocation restriction in abstract terms. It is unclear how this is proof that the products are only used within the allocation restriction.
- 415 The usage and flow data published on the internet are further evidence that the use of the marketed DZK products along the EUGAL says little about the actual technical connection/integration of the pipeline. Since the pipeline started operation at the beginning of 2020, the entry capacity at the Lubmin II entry point has mostly been fully nominated even though the Nord Stream 2 pipeline, which is needed to deliver these quantities of gas, has not yet been completed. Consequently, although nominations at the entry point have been published, the technical flow data indicate zero. This commercial use of the EUGAL pipeline is currently only possible because – as described above – it is connected to other pipelines in the market area. This is the only way it has been possible for network operators to deliver gas for the nominated transport requests using swaps and other transmission system operators' pipelines, inject the gas into the EUGAL pipeline in Germany – beyond the Lubmin II entry point – and transport the gas via the EUGAL pipeline on to Czechia. On the access side, the fact that the transport is possible – even though the Nord Stream 2 pipeline has not been completed – is to be very much welcomed. Otherwise, the transmission system operators would need to interrupt all transport requests on

the entry side. However, this then also justifies taking into account on the tariff side the fact that it is technically possible to transport gas on the EUGAL by also using other pipeline systems.

(iii) Structure of conditional firm capacity products

416 Apart from these case-specific considerations, there are more general aspects indicating that the presence or the proportion of conditional firm capacity products do not allow unequivocal conclusions to be drawn as to the complexity of the market area. Thus according to operative part 1 a) aa) (3) of decision BK7-18-052 (KASPAR) of 10 October 2019, as of 1 October 2021 all of these products have, at the least, interruptible access to the VTP. In conjunction with the very low level of interruptions in the market areas in the past (see Annex I to determination BK9-19/612 relating to the probability of interruption at interconnection points), this leads to the conclusion that even conditional firm capacity products such as DZK are integrated into the market area.

417 Inasmuch as the firmness is linked to demand or flow (specifically as a result of certain temperatures or pressures) in the network in the case of capacity products in the form of bFZK, this also indicates that network structures are complex rather than simple.

(iv) Final assessment of conditional firm capacity products

418 In conclusion it can be stated that the proportion of conditional firm capacity products is not a factor that is an argument against the complexity of transmission systems and therefore against the uniform postage stamp reference price methodology. In fact it may even be an expression of complexity. This is obvious in the case of bFZK products, which by definition are not coupled to a certain transport path but rather can be used for any connections and are merely restricted by conditions such as temperature. However, a DZK product with a fixed point-to-point connection also offers a high degree of flexibility as a result of its interruptible access to the VTP and is therefore an indicator for a high degree of meshing. If at all it would be different if DZK products would have to be regularly interrupted aside from their fixed product component; the historical interruption data, however, show that this is precisely not the case.

(5) Comparison between German transmission systems and other European systems

419 A controversial topic during the consultation was the extent to which conclusions can be drawn from situations in other Member States that have implemented Regulation (EU) 2017/460.

420 While a few other Member States follow an approach that seeks to separate costs associated with cross-system and intra-system use, this does not provide much insight into the situation in Germany, because other countries have different network structures that might be easier to differentiate than the complex, meshed German transmission system. In addition, it does not mean that this approach would be compatible with Regulation (EU) 2017/460.

- 421 For instance, in the example from France brought up in the consultation a regional network is carved out and subject to separate pricing in the form of a non-transmission tariff within the meaning of Article 4(4) of Regulation (EU) 2017/460. ACER correctly criticised in its statement that this kind of exclusion is not permissible because these regional networks also provide transport services. ACER thus recommends that they should either be classified as distribution networks or their use should be subject to transmission service tariffs within the meaning of Article 4(2) NC TAR, in which case the same reference price methodology should apply to all parts of the transmission network (see ACER, Analysis of the Consultation Document on the Gas Transmission Tariff Structure for France, pages 19-20).
- 422 In the Italian example that was also brought up, the legal situation makes it possible to distinguish clearly between transmission systems with national significance and transmission systems with regional significance. This is not the case in the German system. In Italy, unlike in Germany, these network types are specified in national law and subject to different regulatory treatment. The composition of the Regional Transport Network (RRG, Rete Regionale Gasdotti) is identified by the Italian government in the criteria set in article 2 of the Ministerial Decree of 29 September 2005, which was based on Legislative Decree 164/00 (see ACER, Analysis of the Consultation Document on the Gas Transmission Tariff Structure for Italy, page 6, footnote 8). There is no comparable network category in the German system.
- 423 An opposing example is that of the Netherlands, where the transmission system can indeed be divided into high-pressure lines (HTL) and medium-pressure lines (RTL). Although the issue of the supposed inability to compare the two network segments was raised in the consultation there (ACM, Decision ACM/UIT/506830 of 10 December 2018, page 62-63), the Netherlands regulatory authority nevertheless determined a uniform postage stamp for the whole system. ACER found that this method met all requirements of Article 7 of Regulation (EU) 2017/460 (see ACER, Analysis of the Consultation Document on the Gas Transmission Tariff Structure for the Netherlands, page 6 et seq).
- 424 These determinations show that the implementation in other Member States does not allow conclusions to be drawn for the German network situation.

(6) Comparison of tariffs for quarters 1 to 3 and quarter 4 of 2021

- 425 The transmission system operators have now published the reference prices for the first three quarters of 2021 for the two current market areas. A reference price was published of €3.32 per kWh/h/a for GASPOOL and €3.77 per kWh/h/a for NCG. The indicative reference price for the new single German market area shown in Annex 1 of this decision is €3.67 per kWh/h/a, which lies between the two published reference prices. However, this reference price already includes the effects from a higher discounting of uFZK and possible higher discounting of bFZK and DZK

in the H-gas network, as explained in section B.I.3. The indicative determination of the reference price without the effects of the possible higher discounting of bFZK, DZK and uFZK in the H-gas network is more appropriate for the comparison being undertaken here. There is no possibility of higher discounting for the reference prices that have now been published for the two current market areas. The indicative reference price adjusted by the effect of higher discounting for bFZK, DZK and uFZK in the H-gas network would be €3.53 per kWh/h/A for the single German market area as of 1 October 2021. A capacity weighted average of the tariffs published for 2021 up until the merger of the market areas is also €3.53 per kWh/h/a (for the first three quarters of 2021). This shows that only a very small amount of capacity is marketed at the market area interconnection points that will be lost, meaning that the market area merger will have no noteworthy effect on the average reference price. See the explanations in section B.I.3 regarding the reference price that will actually be published by the transmission system operators for the fourth quarter of 2021.

426 Naturally, fluctuations in the reference price may also arise from other effects as part of the allowed revenue and the capacity forecasts used (see also section B.I.5.d)).

(7) The uniform postage stamp reference price methodology

427 Against the background of the determinations in points (1) to (6), the reference price methodology of the uniform postage stamp is to be assessed in comparison to other reference price methodologies.

(i) Significance of the entry-exit system

428 It must firstly be noted that, within the existing entry-exit system, network charges must not be calculated on the basis of the transport paths (see Article 13 of Regulation (EC) 715/2009). According to recital 3 of Regulation (EU) 2017/460, following the introduction of the concept of the entry-exit system by Regulation (EC) 715/2009, transmission costs are no longer directly associated to one specific route as entry and exit capacities can be contracted separately, and network users can have gas transported from any entry point to any exit point. Under this framework, the transmission system operator decides the most efficient way of flowing gas through the system. As a result of the VTP being constantly available in the case of non-conditional capacity products, bookings are abstracted from actual network operation. It is therefore not correct that Regulation (EU) 2017/460 does not attach any importance to the VTP. While it is true that the use of the VTP is not mandatory, the availability of the VTP is the essence of FZK, upon the tariffs of which the reference price methodology has a direct effect.

429 In the ruling chamber's view, the reference price methodology should pick up on these aspects of the market area, strengthen and by no means counteract them. On the one hand, the postage stamp reference price methodology is able to establish a certain degree of cost fairness by using

the recognised cost driver of the capacities that are expected to be booked which, in the main, mirrors the network contingency costs. On the other hand, the methodology acknowledges the abstraction of contract paths by disregarding distances, and thus ultimately it prices entering and/or exiting the market area. For the shipper, the service is the main concern and not the actual physical transport of gas, such that in principle there is no direct connection between a booking and the use of specific infrastructure. Exceptions to this are possible, such as in the case of conditions for firm capacity products, as is the case for products with limited allocability. However, according to Article 4(2) of Regulation(EU) 2017/460 it is not necessary to include such exceptional cases in the reference price methodology itself; they only have to be taken into account when setting transmission tariffs (and not reference prices), if required.

430 No differences arise for the liquidity of the markets from different points on the entry and exit side. If gas is taken off, it is no longer in the market area. It makes no difference where it exits to. The consequences for balancing are similar whether the use is intra-system or cross-system and are in both cases subject to the balancing rules (GABi Gas). Intra-system and cross-system use are not treated differently in the balancing system either. As well as end users and retail customers in the transmission and distribution network areas, the balancing rules are also aimed at cross-system users when withdrawing gas at cross-border interconnection points. Ultimately all network users benefit from liquidity at the VTP, regardless of how they are using the capacity products in any specific case. As far as the exit side is concerned, there is a guaranteed right to procure gas at the liquid VTP if required for products directly affected by the reference price methodology.

(ii) More detailed cost allocation

431 On the other hand, a more detailed cost allocation, such as allocating individual pipelines to specific bookings, is not possible due to the complexity and meshed structure of the Germany-wide market area. In this respect, the postage stamp per type of network point reference price methodology also does not attempt to allocate costs to individual pipelines. Instead, it uses a more general approach based on the transmission system operators' revenue caps and their respective shares of bookings among the various groups of network points. The proposal of this reference price methodology makes it plain that this form of allocation is ruled out, particularly on the entry side, since it is not possible to differentiate unequivocally between intra-system and cross-system network use. Allocation on the exit side is also not carried out on the basis of concrete cost structures but only in an abstracted form on the basis of the shares of capacity bookings. Therefore costs are not allocated more accurately than they would be with a uniform postage stamp, merely in a different way, which only appears to be accurate. The allocation attempts of the postage stamp per type of network point and the function-specific postage stamp are discussed in detail in sections B.I.5.b)(8) and B.I.5.b)(9).

- 432 In contrast, the capacity weighted distance reference price methodology is based on the cost driver of distance as well as the cost driver of capacity. In linear systems, for example, this can be an appropriate further differentiation resulting in greater cost fairness. The more complex the system, the lower the probability that using an inflexible combination of capacity and distance will result in a tariff that is actually cost-reflective. As discussed above, the complexity and meshed structure of the German gas transmission networks prevent distance from being considered an appropriate cost driver. This also applies against the backdrop of the full integration of the H-gas and L-gas networks in balancing, where as a rule there is no physical connection that could be used to calculate a distance.
- 433 As a general rule it can be stated that calculating average prices at least rules out (open or hidden) arbitrary cost allocation. Another key factor ensuring sufficient cost-reflectivity is multipliers as detailed in Article 13 of Regulation (EU) 2017/460, by means of which in the case of non-yearly capacity bookings it is guaranteed that an appropriate proportion of the transmission network contingency costs incurred throughout the year will be borne. Another aspect giving rise to greater cost-reflectivity is the consideration of conditions for firm capacity products, Article 4(2) of Regulation (EU) 2017/460. If, for example, the accessibility of the VTP cannot be guaranteed with a capacity product, it is appropriate to reduce the relevant tariff accordingly. Although such aspects are not within the scope of the reference price methodology, they demonstrate that the issue of cost-reflectivity is addressed in the overall system of tariff setting even with a postage stamp tariff applicable to all network operators.
- 434 A possible objection to the postage stamp reference price methodology may be that it does not even try to allocate costs directly. On the other hand, this prevents the inappropriate, non-transparent allocation of costs within a complex methodology in a manner that is not easily apparent to market participants. For example, taking distance into account as a cost driver does not necessarily lead to the particularities of the transmission networks being mapped more precisely. It should be noted that the capacity weighted distance methodology disregards other key cost drivers such as the difference between inlet and outlet pressure. This carries the risk of overemphasising distance as a cost driver as compared to other potential cost drivers.
- 435 In particular when considering trade via the VTP, it becomes apparent that the capacity weighted distance methodology detailed in Article 8 of Regulation (EU) 2017/460 has weaknesses because it disregards this issue, whereas with the postage stamp reference price methodology a uniform price for access to the VTP is guaranteed. In the opinion of the ruling chamber, the notion that there would have to be different tariffs for access to the VTP is not a general counter-argument against this aspect. It may be appropriate in transmission systems where stable gas flows and transparent supply sources make it possible to approximate the location of a VTP. This already happens in Austria, for instance, where the nature of the network and the gas flows make it

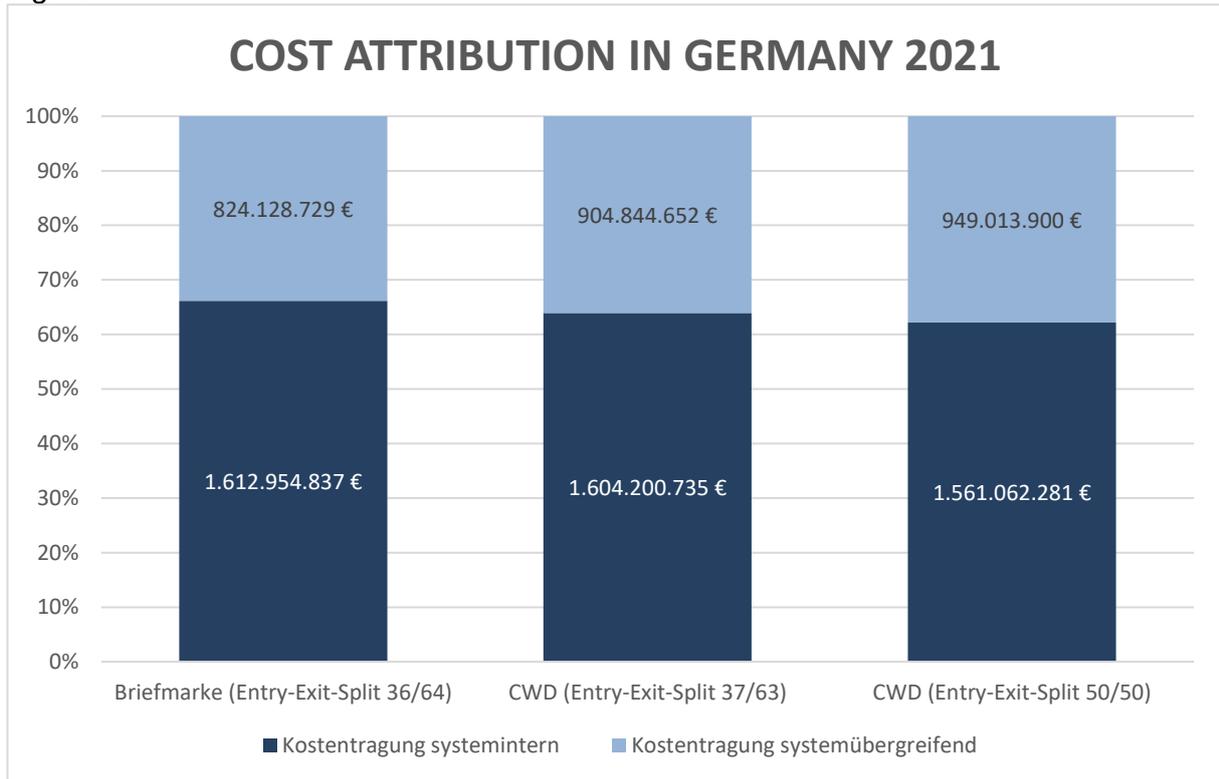
possible to define the interconnection point Baumgarten as a virtual reference point. However, the meshed and complex structure of the German transmission systems rules out such an approach. Against this background, the ruling chamber is of the opinion that it cannot be argued that a particular point or, more generally, a particular type of point (eg interconnection points or points to end users) enables access to the VTP at lower or higher cost.

436 Ultimately, the provisions in Article 8 of Regulation (EU) 2017/460 do not take account of the particularities of a complex, dual-quality market area incorporating a large number of transmission system operators. Different assumptions or a different design of the connection for the H-gas and L-gas networks would result in different tariffs without there being compelling reasons for this in the interests of cost-reflectivity when setting tariffs.

(iii) Cost attribution between intra-system and cross-system network use

437 The general cost attribution of intra-system and cross-system network users was an issue raised during the consultation in light of the proportions of bookings and gas volumes. The fact is that transit and domestic consumption each make up around 50% of the total gas transport via the German transmission system by gas volumes (not by capacity bookings). However, around two thirds of the financing for the German transmission system is provided by domestic customers (intra-system network use), to whom about double the amount of costs are allocated as to transit users (cross-system network use), as may be seen from the bar chart below. It shows the cost attribution if a uniform postage stamp is applied with a capacity weighted entry-exit split and if a capacity weighted distance (CWD) is applied, the latter broken down into one with a capacity weighted entry-exit split and the other with a standard entry-exit split of 50:50. The data on the capacity weighted distance are based on those available at the time of the consultation.

Figure 22



Briefmarke (Entry-Exit-Split 36/64)	postage stamp (entry-exit split 36/64)
CWD (Entry-Exit-Split 37/64)	CWD (entry-exit split 37/64)
CWD (Entry-Exit-Split 50/50)	CWD (entry-exit split 50/50)
Kostentragung systemintern	intra-system cost attribution
Kostentragung systemübergreifend	cross-system cost attribution

438

439 As can be seen in the chart, if the reference price methodology of the uniform postage stamp is applied, the indicative proportion of intra-system network use in the cost attribution for 2021 is 66%. It should be noted that if the capacity weighted distance reference price methodology, which Article 8 of Regulation (EU) 2017/460 envisages as the standard methodology, is applied, the cost allocation is very similar. The uniform postage stamp reference price methodology actually allocates rather lower costs to cross-system network use than the CWD methodology would. The distribution of costs is an important aspect to be considered in the assessment of reference price methodologies because the decision has to weigh up the interests of the whole system of network usage and revenues.

440 In addition, the specific tariff for cross-system network use is on average much lower than the tariff for intra-system network use, as can be seen from the "ratio intra cap" and "ratio cross cap" data

in Annex 2. These figures show the relevant average tariffs per kWh/h/a (reserve prices) with the discount at storage facilities, among other things, already allocated in accordance with the different variants (see section B.I.4). The different allocation variants for storage facilities show that the large discount leads to a much lower average tariff. The comparison of average tariffs if 100% of gas exiting to storage is allocated to intra-system use versus 100% of gas exiting to storage being allocated to cross-system use clearly illustrates this aspect and explains why the average tariffs are lower than the reference price. In the variant in which capacity bookings are proportionally allocated to storage facilities, the average tariff for cross-system network use with a uniform postage stamp is just €3.03 per kWh/h/a, while the average tariff for intra-system network use is €3.35 per kWh/h/a.

(iv) Input privilege for biogas and gas from power-to-gas (PtG) facilities

441 The privileged situation for biogas injection and gas from PtG plants, too, does not contradict the cost-reflectivity principle but is due to the complexity of the transmission network and the consequences of such inputs into the transmission network. The decentralised domestic injection of a natural gas equivalent reduces the strain on the network as the corresponding volumes no longer have to be imported from foreign sources. The input takes place closer to the consumption location, thus reducing transport requirements. This results in a reduction of costs that can be directly allocated to the relevant entry points. Furthermore, in contrast to other entry points, the costs for the technical infrastructure used for the input of biogas are not covered by the transmission tariffs governed by the reference price methodology but by the biogas charge. Network customers transporting biogas are therefore not completely exempt from the costs of injection; they pay these costs, at least pro rata, via the biogas charge to be paid when the gas is withdrawn. It is therefore cost-reflective to exempt these points from entry tariffs. In addition the ruling chamber sees a network-benefiting and cost-reducing effect in the case of hydrogen produced by water electrolysis and gas manufactured using hydrogen produced by water electrolysis with subsequent methanation. The ruling chamber adheres to its policy of tariff exemption for technologies of this kind. If in future other technologies exhibit similar effects and, where applicable, tariff exemption may be appropriate for reasons of climate policy, market participants are free to put forward such aspects in the course of future consultations, which have to take place at regular intervals anyway. However, a general ruling open to all technologies brings with it the risk of subsuming circumstances in which tariff exemption is not justified. Under a reference price methodology to be determined on a specific basis, the ruling chamber does not consider abstract exemptions from the methodology to be appropriate.

442 In order to be able to take into account the impacts of such a tariff exemption in future, if and when the share of these technologies increases, the reporting duty with respect to the volume risk includes the duty to report the share of revenue lost as a result of these special circumstances.

(v) Assessment of the uniform postage stamp reference price methodology

443 In conclusion, it can be stated that the postage stamp reference price methodology takes account of the actual costs incurred for the provision of transmission services and the complexity of the transmission network is taken into consideration. This is confirmed by the quantitative analysis in section B.I.5.b)(2), which shows that a different assessment on the basis of the presented lower unit costs for greater pipeline diameters and pressures is not justified against the backdrop of the other effects analysed, eg with regard to vacancy costs and distances. The findings on regional networks in section B.I.5.b)(3) do not justify any other assessment either. Although the capacity weighted distance reference price methodology detailed in Article 8 of Regulation (EU) 2017/460 is considerably more complex in terms of methodology, it does not achieve greater cost-reflectivity given the circumstances of the German market area.

(8) The postage stamp per type of network point reference price methodology

444 The proposed postage stamp per type of network point reference price methodology is an attempt to better reflect the actual costs of capacity bookings considering the level of complexity of the transmission network by using a differentiated approach. This approach assumes that cross-system network use incurs lower costs and accordingly should in principle be priced at a lower level than intra-system network use. The main assumption is that lower-cost pipelines are relevant to cross-system flows.

445 It is questionable whether this assumption applies without exception. The basic assumption is that, in a static view of a pipeline with a relatively large diameter and assuming that the pipeline is used for cross-system network use, the costs per unit of capacity are lower than in the case of pipelines with smaller diameters or in the case of a more complex pipeline system used for transmission which also has a distributive function. However, this approach disregards the fact that, in a complex entry and exit system with a large number of cooperating transmission system operators, the transmission system operators also always provide services to each other to a certain degree.

446 The suggestion that there is such a thing as an ideal form of cross-system network use is questionable. Notwithstanding the provisions in Article 3 sentence 2 points 8 and 9 of Regulation (EU) 2017/460 which define intra-system and cross-system network use, and the associated cost allocation assessment in accordance with Article 5 of Regulation (EU) 2017/460, it is doubtful whether any such allocation can be made with complete certainty in an entry and exit system. The provisions set out in Article 5(5) of Regulation (EU) 2017/460 show that, particularly on the entry side, differentiation is only possible by making very sweeping assumptions.

447 In this regard, recital 3 of Regulation (EU) 2017/460 makes it clear that, after the introduction of the concept of the entry-exit system by Regulation (EC) 715/2009, transmission costs are no longer directly associated to one specific route as entry and exit capacities can be contracted

separately and network users can have gas transported from any entry to any exit point. In this context, no conclusions as to the reference price methodology should be drawn from possible conditional firm capacity products with allocation restrictions such as DZK, since the methodology determines the reference price for a firm capacity product without any allocation restrictions. Instead, such allocation restrictions must be taken into account separately when setting transmission tariffs according to Article 4(4) of Regulation (EU) 2017/460 and an appropriate discount on the reference price must be granted. Moreover, in addition to fixed point-to-point access DZK products allow interruptible access to the VTP, so as a general principle there cannot be assumed to be an ideal transit flow in this case.

- 448 Within the scope of the postage stamp per type of network point reference price methodology it is then also apparent that the targeted cost allocation is meant to be put into practice in only very limited circumstances. The justification for the four point types mentioned above is mainly limited to the argument that the exit points in the form of cross-border interconnection points should be grouped together because cross-border transport has a different cost structure. However, this alone cannot be the basis on which the allocation of all four of these point types is ultimately determined. It would therefore also be necessary to discuss the extent to which allocation to the other three groups can be carried out appropriately on the basis of typical costs. The proposal for the postage stamp tariff per type of network point determines the remaining groups of point types but without justifying how this is done.
- 449 The ruling chamber is convinced that – on this level in any case – the cost allocation per capacity booking under the uniform postage stamp reference price methodology constitutes an appropriate allocation of the actual costs incurred. The ruling chamber considers it mandatory to justify any general charges and discounts applied to individual point types that differ from this principle and does not consider that the comments submitted during the consultation procedures up to now are a sufficient basis for determining a reference price methodology other than the uniform postage stamp reference price methodology.
- 450 Even at the outset, an argument to be made against this proposal is that the postage stamp tariff per type of network point does not ensure a consistent distribution of costs since ultimately it is not the costs but the proportions of total bookings that are allocated to the individual point types. Consequently, if the shares of bookings fluctuate over the course of the following years the corresponding tariffs would change but the actual cost share would have to remain the same. It would however still be unclear why, for instance, in the context of methodological cost allocation the cost pool for transit should change when transit bookings are higher or lower. This circumstance cannot be used as a counterargument against the uniform postage stamp methodology since it uses the bookings merely to distribute the total cost pool evenly and in a non-discriminatory fashion.

451 With the postage stamp tariff per type of network point, costs are distributed on the basis of capacity forecasts, so in principle it also opens a gateway for inappropriate cost distribution. It cannot be ruled out, for instance, that the forecast at interconnection points is set too low, which then results in a higher reference price being calculated at interconnection points. Any additional revenue generated would also have to be distributed at domestic points in the following years, which would lead to an inappropriate displacement of revenues to the benefit of domestic points. In the case of a uniform postage stamp, on the other hand, incorrect forecasts always merely result in higher or lower revenues, which are evenly balanced via the regulatory account.

452 In addition, the postage stamp per type of network point reference price methodology gives rise to follow-up questions with regard to allocation of costs. Thus, there are numerous cases where end users or downstream network operators are connected to large pipelines that are also used for transit purposes and according to the proposal are regarded as being especially cost-effective. In spite of this, these end users and downstream network operators would have to pay higher tariffs under the proposal for the postage stamp tariff per type of network point. However, there would be no objective reason for these higher tariffs.

453 Ultimately, the proposed methodology results in a differentiation in tariffs on the basis of the ownership structures of transmission system operators, which – with different costs – each have a different share of the individual point types in terms of capacity. The ruling chamber does not consider this to be a more cost-reflective approach than a uniform postage stamp tariff.

454 One further aspect is the allocation of shortfalls in revenue by means of deductions from the reference price. Whereas in the case of the postage stamp reference price methodology through Article 6(4)(c) of Regulation (EU) 2017/460 these shortfalls in revenue are shared among all points, for example because of discounts for conditional firm capacity products in accordance with the reference price methodology being applied uniformly, under the proposed postage stamp per type of network point reference price methodology they do not stay within the groups but in fact are also borne by other point types. It remains unclear in this connection why a cost allocation that has already taken place should be disrupted again. In the case of storage facilities, the argument in favour of this can be expressed to the extent that, logically, they are not able to bear the cost of this deduction as set out in Article 9(1) of Regulation (EU) 2017/460 themselves. However, in the case of exit points that take the form of cross-border interconnection points, for example, this is not readily apparent.

455 In light of the deliberations set out above, the ruling chamber considers the proposed postage stamp per type of network point reference price methodology not to be preferable over the postage stamp reference price methodology in respect of aspects of cost-reflectivity, taking account of the complexity of the transmission networks.

(9) Function-specific postage stamp on the basis of explicit cost allocation according to transport tasks

456 The function-specific postage stamp on the basis of explicit cost allocation according to transport tasks reference price methodology represents an attempt to eliminate the shortcomings of the postage stamp per type of network point reference price methodology with regard to its lack of cost allocation in that it links in a somewhat more differentiated manner to different components of the revenue caps of the individual transmission system operators in order to attribute the corresponding costs in a supposedly focused way to intra-system or cross-system network use. However, as in the case of the postage stamp per type of network point, the question arises here too as to whether such a distinct separation between intra-system and cross-system network use is at all possible. Cost allocation to the two forms of use – assuming that they can be clearly distinguished – is also by no means unambiguous. All proposed variants of the split operate with a blanket approach that is intended to allocate the entire cost base to the transmission system operators on the basis of a single indicator. It is questionable whether reliable information about the share of cross-system use can be derived from the proposed indicators.

457 The fundamental problem, that in an integrated market area transport services are also performed using other transmission system operators' systems and in practice it is almost impossible to identify the infrastructure actually used for the performance of a specific service, is not solved by the analyses in the expert opinion either. The presumption that a large pipeline diameter and high compressor capacity are linked to a predominantly cross-system network function disregards the fact that transmission system operators with relevant types of transport systems do not perform their services in isolation from the other transmission system operators' pipelines. If, as proposed, in order to determine the costs of cross-system network use for an individual transmission system operator the methodology uses a certain proportion of the operator's revenue cap that is associated with cross-system transports because of specific features, it is precisely the case that it does not take account of the entirety of all costs necessary for transport. This is because the revenue cap does not reflect those costs that arise as a result of services by other transmission system operators in the market area and are not priced, or are only priced through a compensation mechanism that does not directly affect the revenue caps. It is unclear whether a link between cross-system network use and specific technical features would become apparent even if all the technical processes needed to bring about an input and a corresponding offtake in the market area were taken into consideration, and is probably impossible to determine in light of the repeatedly mentioned complexity of the physical gas flows in the market area and their interactions with each other.

458 The ruling chamber added to these basic assessments in the course of the consultation.

(i) Basic assumptions made by DNV GL

- 459 The expert opinion submitted by DNV GL as part of the consultation attempts to divide the transmission system operators into three groups by assigning the individual elements of the transmission system to one of the two functions using certain structural parameters:
- transmission system operators with more of a cross-system function
 - transmission system operators with more of an intra-system function, and
 - transmission system operators with a mixed function.
- 460 Pipelines with a diameter of more than 700 mm and/or pressure level HD4 are to be allocated to cross-system network use, although the HD3 pressure range can also be cross-system.
- 461 The fundamental problem, that in an integrated market area transport services are also performed using other transmission system operators' systems and in practice it is almost impossible to identify the infrastructure actually used for the performance of a specific service, is not solved by the analyses in the expert opinion either. The presumption that a large pipeline diameter and high pressure range are linked to a predominantly cross-system network function disregards the fact that transmission system operators with relevant types of transport systems do not perform their services in isolation from the other transmission system operators' pipelines. It is unclear whether a link between cross-system network use and specific technical features of the pipeline systems would become apparent even if all the technical processes needed to bring about an input and a corresponding offtake in the market area were taken into consideration, and is probably impossible to determine in light of the complexity of the physical gas flows in the market area and their interactions with each other. It is hardly possible to check, for example, whether gas is really never transported to a cross-border interconnection point using pipelines with diameter classes C to G.
- 462 Moreover, looking at the pipeline kilometres of diameter classes A and B, pipeline systems like DEUDAN, which transports gas through Schleswig-Holstein to Denmark, would not be allocated to cross-system network use. The pipelines of bayernets GmbH and Open Grid Europe GmbH (OGE) in Überackern on the Austrian border have an inner diameter of less than 700 mm. OGE's entry pipeline from the Netherlands at Oude Statenzijl actually has an inner diameter of under 600 mm. The pipelines of OGE to Luxembourg in Remich and Thyssengas and Gastransport Nord to the Netherlands in Bocholtz and Oude Statenzijl respectively have an inner diameter of between 400 mm and 500 mm.
- 463 Differentiating merely by diameter class or pressure level also ignores other parameters mentioned in the expert opinion such as compressor capacity or the capacities of bookable/orderable points, although the opinion also assigns a significance to the function of the relevant infrastructure. If, on the other hand, all the proposed parameters are taken into account, the criterion for the division of the revenue caps is completely unclear because there would be a different ratio for each parameter. Even considering individual parameters is very unclear. It is not

shown how a division by pressure level is supposed to be conducted if the pressure range HD3 fulfils both functions (intra-system and cross-system), according to the expert opinion.

464 The opinion thus leaves major questions arising from the supposed separability of the functions unanswered. A purely technical and abstract separation of functions using diameter classes or pressure levels would negate the fact that the functions are, or have to be, considered together in other contexts by all transmission system operators. The expert opinion does not make clear why in the unique instance of tariff structures a function-specific separation should be conducted according to technical criteria but in all other processes there is a joint consideration of the jointly operated infrastructure across the market area.

465 No option to correct this approach and base it on more suitable indicators is given either. For this to happen, a way would have to be found to distinguish between pipelines relevant for cross-system use and those only for intra-system use in order to subsequently provide information about the typical technical characteristics and costs of the two groups. The ruling chamber can still not identify any way to do this, as shown in particular by the examples of flow scenarios (see pages 74-75).

466 The expert opinion considers the individual network operators separately, disregarding the fact that they are like tiles in a mosaic, forming a whole with a function going beyond the functions of the individual parts. The opinion analyses the cost structures of the different transmission system operators but does not provide useful conclusions about the costs of a particular transport service supplied by the market area and thus about the appropriate pricing of specific entry and exit capacity.

(ii) Separability of costs with regard to intra-system and cross-system network use

467 The separation of cost components of revenue caps assumes at least one indicator that can be used to divide the function of at least a significant part of the network components into intra-system and cross-system network use. No such indicator is evident, however. The analyses undertaken in the opinion about the typical characteristics of networks with a transit function and those with a distribution function amount to nothing because reciprocal services between transmission system operators are ignored and, instead of transport costs, the costs of individual transmission system operators are considered. The asserted correlation between cross-system transport and certain infrastructure features is thus unsupported. Then taking this hypothesis as the basis for the allocation of all not directly asset-related costs can at best lead to a misleading form of cost reflexivity.

468 All proposed variants of the split operate with a blanket approach that is intended to allocate the entire cost base in the form of revenue caps to the transmission system operators on the basis of a single indicator. It is questionable whether reliable information about the share of cross-system

use can be derived from the proposed indicators. Even if the parameter selected for individual cost types – such as imputed costs in the form of imputed depreciation, imputed rate of return and imputed trade tax for certain groups of assets like pipelines – were a suitable instrument for allocation, this instrument would not be suitable for large parts of the revenue cap and would have a blanket effect and not lead to appropriate results.

469 If a suitable division could actually be found for infrastructure and therefore for capital costs, there would still be the question of the distribution of the other costs, for example for flow commitments, larger items for maintenance and repair of older network parts, compressor usage and all other components of the revenue caps. Flow commitments (contractual agreements with third parties promising particular flows, section 9(3) sentence 2 para 1 GasNZV) are a prime example of instruments to implement transport orders that are completely separate from any infrastructure and call the whole concept of an isolated transit network with isolated costs into question. Simply transferring a capital cost key to operating costs also seems highly questionable. These generally do not correspond to each other but actually have a negative correlation, since it is particularly old networks that have largely depreciated and only have low capital costs that need a lot of maintenance. Thus, using such parameters to determine the actual costs would not be at all accurate and not fulfil the criterion of cost reflectivity.

(iii) Consideration of distances

470 As far as the line of reasoning about a transit network and a separate domestic supply transmission network is concerned, with regard to different distances it has to be asked why the national offtake should in principle bear higher costs than gas transits. For intra-system network use, there is no need to extend the network infrastructure up to the country or market area border, where gas flows regularly exit (eg in the direction of France). Rather, offtake usually occurs on a much shorter route within the market area. It could therefore equally be concluded that internal supply causes lower costs. It may therefore be seen that the expert opinion attempts to carve out a notional transit network without assessing it with regard to the reference price methodology to be applied at all. In fact, the reference price methodology is to be applied to the abstractly defined transit network without the prerequisites for this being shown.

(iv) Consideration of degrees of utilisation

471 Furthermore, the expert opinion is based on the faulty reasoning that large, high-pressure pipelines supposedly incur lower unit costs (see sections B.I.5.b)(2) and B.I.5.b)(3) for more on this term) merely because of their transit function and are to be allocated to cross-system use. Even if the fact that it is not possible to allocate particular transport services to particular transport pipelines is ignored and the argument is based on the relatively low unit costs of those large

pipelines, it should be noted that these are by no means always lower than pipelines with a smaller diameter. Unit costs largely depend on the extent to which a pipeline is booked. If capacity remains unused (ie it cannot be successfully marketed for the greater part of the year), the unit costs for a large-volume pipeline are disproportionately high. Larger volumes with corresponding flow scenarios also correspond to greater oversizing, which results in higher costs. However, the larger pipelines only receive a large amount of bookings because smaller systems branch off from them at regular intervals and are fed by the major systems.

472 In addition, the analyses showed a general imbalance in the degrees of utilisation in cross-system and intra-system network use, which further supports this argument.

(v) Significance of intra-system network use for the overarching network

473 Even if large pipelines are classified and separated as transit lines, the supposedly lower unit costs are inconceivable without the economies of scale provided by their involvement in supplying other systems. It is not possible to divide the meshed and mutually dependent system in Germany into a cross-system and an intra-system part. Moreover, the costs of a pipeline do not merely depend on its size but also on other factors, in particular its age as measured by the imputed remaining life expectancy or the necessary operating pressure. For the latter, the necessary operating pressure is higher because of the simultaneous possibility of cross-system network use than for purely intra-system network use. As a direct result, the decompression costs incurred when gas volumes move to smaller, lower-pressure systems are higher. Consequently, both the compression and the decompression costs would have to be allocated to cross-system use. Given all these factors, the German transmission system displays a very uneven structure that means that an approach based on dimensions alone seems rather simplistic and not necessarily more exact than a uniform postage stamp. The cost structure of relatively old, high-pressure pipelines such as the TENP and the MEGAL is completely different to that of new pipelines like the NEL, the OPAL and the EUGAL.

(vi) Capacity framework for the overarching network

474 For the "transit network" defined despite all these difficulties and inaccuracies, it could further be necessary to calculate a new capacity framework. It might not be appropriate to transfer the internal orders to the notional network points with the market area unchanged. It would have to be asked whether, using such an abstraction, the "transit network" would have the same capacity as the total network under the assumption of the internal orders. It would also have to be asked whether the system of internal orders could be transferred to the "transit network" or if the unequal treatment compared to cross-border interconnection points (no option of structured booking) would not constitute discrimination.

(vii) Categorisation of storage facilities and gas-fired power plants

- 475 Another completely unclear point is the allocation of storage facilities, which serve both cross-system and intra-system network use. Following the logic of the expert opinion, it would be equally incorrect to apply pricing to storage points using only the cross-system postage stamp or to apply a fully additional pricing with the intra-system postage stamp. If capacity bookings were used as a differentiation criteria in the division of the revenue caps into cross-system and intra-system partial revenue caps, it would also be unclear how bookings at storage points should be dealt with.
- 476 Furthermore, the discussion about the allocation of gas-fired power plants (against the background of their systemic relevance for the electricity market) shows that in that case, the allocation issues should apparently be looked at again because of individual interests. At this point it would have to be explored whether, despite the technical connection situation, there would have to be an exceptional allocation to the cross-system network use, for example because a particular gas-fired power plant has a cross-system – ie international – significance or whether a different allocation would be appropriate because of the systemic relevance of power plants.

(viii) Assessment of the proposal of DNV GL with regard to cost-reflectivity

- 477 The ruling chamber has given close consideration to the proposals and arguments made in the course of the consultation. While the function-specific postage stamp reference price methodology attempts to be more precise in its cost allocation, on closer examination it is apparent that the allocation issues in the complex German transmission system cannot be resolved by this alternative proposal. In fact, it would give rise to a multitude of further questions and individual decisions. The ruling chamber therefore remains convinced following the consultation that the function-specific postage stamp reference price methodology is not preferable to the uniform postage stamp.

(10) Other reference price methodologies

- 478 In addition to the uniform postage stamp, postage stamp per type of network point, function-specific postage stamp on the basis of explicit cost allocation according to transport tasks and capacity weighted distance reference price methodologies, within the framework of the proceedings for the preceding decisions BK9-18/610-NCG and BK9-18/611-GP ACER put forward the matrix reference price methodology, stating that this should be discussed if the uniform postage stamp reference price methodology proves not to be cost-reflective following closer assessment.
- 479 Firstly, the ruling chamber is convinced that the cost-reflectivity of the uniform postage stamp reference price methodology can be demonstrated, especially against the background of the

complexity of the transmission networks. Secondly, the matrix reference price methodology does not constitute a practicable methodology for Germany's transmission networks. To begin with, this reference price methodology requires a whole host of input parameters: the length, capacity and construction costs must be known for each individual pipeline section, based on full cartographic details of the entire network being held on file. Furthermore, the corresponding pipeline sections must be allocated for all combinations of entry and exit points. Realistically, this can only be achieved if the transmission network exhibits a stable, typical flow. However, in a meshed network with the possibility of being supplied from various sides, no such allocation can be carried out properly. Moreover, the integration of the L-gas and H-gas networks is a distinct argument against the creation of such paths. A corresponding matrix would thus have almost one million values for the German market area.

480 Besides, a methodology of this type would be highly opaque for network users and in many respects, in terms of results, would be dependent on assumptions that would have to be made during the calculation steps.

c) Article 7 sentence 2(c) of regulation (EU) 2017/460

481 According to Article 7 sentence 2(c) of Regulation (EU) 2017/460, the reference price methodology shall aim at ensuring non-discrimination and prevent undue cross-subsidisation including by taking into account the cost allocation assessments set out in Article 5 of Regulation (EU) 2017/460. This specifies the requirement set out in Article 13 of Regulation (EC) 715/2009 that the approved tariffs or the methodologies used to calculate them must be applied in a non-discriminatory manner and that cross-subsidies between the network users must be avoided.

482 The postage stamp reference price methodology fulfils these requirements because, on the basis of the equal treatment of all forecasted capacity bookings, it guarantees the equal treatment of all network users and thus non-discrimination. The necessary splitting of revenues at entry and exit points (entry-exit split) is carried out in a non-discriminatory manner merely on the basis of the forecasted booked capacities for cost-reflective cost allocation. Individual network users or groups of network users neither gain an advantage nor suffer a disadvantage in this process, as equal services are priced identically. In particular, the reference price for accessing the VTP is always identical.

483 In the course of the consultation, it was correctly pointed out that with the uniform postage stamp reference price methodology, the costs assigned to intra-system network use were twice as high as the costs assigned to cross-system network use even though transit and domestic consumption each make up around 50% of the total gas transport via the German transmission system by gas volumes (not by capacity bookings) (see B.I.5.b)(7)(iii)). Against this background, discrimination

of cross-system network use is unlikely, as is also shown by the systematic analyses under B.I.5.b)(2).

484 The results of the cost allocation assessment pursuant to Article 5 of Regulation (EU) 2017/460 described in section B.I.4 also make it clear that there is no undue cross-subsidisation of cross-system network use.

485 Likewise, the non-pricing of biogas and PtG input does not have a discriminatory effect. As explained above under B.I.5.b)(7)(iv), the input of this gas is associated with cost-reducing effects, which justify it being treated differently from other entry points. The justification for not being treated equally with other decentralised entry points at conventional natural gas storage facilities is that these are finite, climate-damaging resources whose use should not be incentivised by granting additional discounts. The input of biogas, on the other hand, serves the aim of increasing the use of climate-neutral resources and is intended to generate its network-benefiting effect over the long term. PtG plants are likewise intended to be of lasting benefit to the network and to provide for coupling between the electricity and gas sectors in order to enable the storage of excess quantities of electricity, which occur ever more frequently on account of the increasing amount generated from renewable sources.

486 The capacity weighted distance reference price methodology set out in Article 8 of Regulation (EU) 2017/460, however, does not satisfy these requirements to the same extent. The rigid approach of a 50/50 entry-exit split in accordance with Article 8(1)(e) of Regulation (EU) 2017/460 prevents costs or revenues from being allocated to the entry and exit points in an appropriate manner tailored to individual circumstances. The access to the VTP is priced differently, for which there is no objective justification arising from the distance in a meshed transmission network, and this issue is not covered in the detailed provisions of Article 8 of Regulation (EU) 2017/460. For further details of the cost allocation assessment under the capacity weighted distance reference price methodology, refer to sections B.I.5.e) and B.I.6.

487 The proposed postage stamp per type of network point and function-specific postage stamp reference price methodologies do not meet these requirements to the same extent either. Although setting higher prices at exit points to end users and downstream network operators could be justified in that these points entail higher costs compared with exit points in the form of cross-border interconnection points, even this assumption is subject to doubt (see explanations in section B.I.5.b)). Moreover, the consultation and the detailed analyses showed that there would be systematic unequal treatment of intra-system network use in comparison to cross-border interconnection points although the technical connection situation is largely the same. This is not just the case for exit points to end users and downstream networks located near the border or near cross-border interconnection points but for all exit points located near larger pipeline structures (see the more detailed analysis in section B.I.5.b)(2)(iii)).

488 In light of these considerations, the ruling chamber considers neither the proposed postage stamp per type of network point reference price methodology nor the function-specific postage stamp reference price methodology to be preferable to the uniform postage stamp reference price methodology with regard to the need to ensure non-discrimination and the prevention of undue cross-subsidisation taking into account the cost allocation assessments set out in Article 5 of Regulation (EU) 2017/460.

d) Article 7 sentence 2(d) of Regulation (EU) 2017/460

489 Article 7 sentence 2(d) of Regulation (EU) 2017/460 states that the reference price methodology shall aim at 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. There are no directly corresponding provisions in Article 13 of Regulation (EC) 715/2009.

490 Recital 6 of Regulation (EU) 2017/460 states that transmission system operators in certain entry-exit systems transport significantly more gas into other systems than for consumption into their own entry-exit system. Consequently, reference price methodologies should include safeguards required to protect such captive customers from risks related to large transit flows.

491 However, within the German entry-exit system it is not the case that significantly more gas is transported into other systems than for consumption in their own entry-exit system: on the contrary, it is less. This remains the case regardless of whether the assessment is made on the basis of booked capacity or actual gas flow. It is therefore questionable whether the above requirement detailed in Article 7 sentence 2(d) of Regulation (EU) 2017/460 is at all relevant for the reference price methodology established for the German entry-exit system.

492 It is also questionable whether the associated risk of a significant reduction in capacity demand for cross-market-area network use can be addressed at all by the reference price methodology. The reference price methodology system (in the case of a revenue-cap regulatory regime in accordance with the ARegV; see also Article 3 sentence 2 point 3 of Regulation (EU) 2017/460) takes as its starting point certain revenue that can be recovered from transmission tariffs. Tariffs and revenue always relate to a tariff period; see Article 3 sentence 2 point 23 of Regulation (EU) 2017/460. If the volume risk addressed here materialises, reconciliation can be achieved using the regulatory account in accordance with Article 17 et seq of Regulation (EU) 2017/460 in future. With respect to the ongoing tariff period, only as precise a forecast as possible of the booked capacities can be used as the basis for setting tariffs.

493 The postage stamp reference price methodology at least offers the advantage that because of averaging there are only minor fluctuations in the event of individual shifts in flow or load or if they drop out altogether. This methodology is therefore not dependent on a point-specific capacity forecast being as accurate as possible. Because of the averaging and non-discriminatory tariff

setting, irrespective of the typification of entry and exit points, the volume risk is borne equally by all (future) network users.

494 Further-reaching solutions, for example in the form of switching the regulatory system to a price cap regime (Article 3 sentence 2 point 17 of Regulation (EU) 2017/460), are not relevant in the context of the assessment of the reference price methodology on the basis of the criteria detailed in Article 7 of Regulation (EU) 2017/460. With regard to the regulatory account, Article 19(4) of Regulation (EU) 2017/460 prescribes that only one regulatory account may be used, thus ruling out, for example, separate regulatory accounts for cross-system and intra-system system network use. Any remaining volume risks are counteracted by the transmission system operators providing as precise a forecast as possible of the booked capacities. The quality of the forecast cannot be determined in the abstract, however.

495 Compared to the postage stamp reference price methodology, the capacity weighted distance reference price methodology detailed in Article 8 of Regulation (EU) 2017/460 does not meet the criterion set out in Article 7 sentence 2(d) of Regulation (EU) 2017/460 to the same extent due to the poorer quality of the forecast. The latter methodology results in tariffs that differ relatively widely on a point-specific basis and thus makes forecasting the behaviour of traders significantly more difficult than with the postage stamp reference price methodology. With the capacity weighted distance reference price methodology as detailed in Article 8 of Regulation (EU) 2017/460, therefore, there may potentially be a tendency for higher amounts to appear in the regulatory account, which would exacerbate the problem of passing on the volume risk to end users of the entry-exit system.

496 The non-pricing of biogas and PtG input is not relevant to the volume risk owing to its minor monetary significance (see section B.I.5.e)).

497 In conclusion it can be stated that, because of its lower susceptibility to forecasting errors, the postage stamp reference price methodology is at least superior in terms of satisfying the requirements detailed in Article 7 sentence 2(d) of Regulation (EU) 2017/460 than the capacity weighted distance reference price methodology set out in Article 8 of Regulation (EU) 2017/460.

498 In the course of the consultations to date the fear was expressed to the ruling chamber that there could be a general decline in cross-system network use and thus a tendency for tariffs to rise on account of the loss of corresponding bearers of costs. This was another reason why the postage stamp per type of network point and function-specific postage stamp reference price methodologies were proposed. However, the comments referred merely to the abstract risk of the displacement of transit flows. They did not give specific alternative routes with free capacity and competitive, stable tariffs. Ukraine is merely mentioned as an alternative route for the import of Russian natural gas without any consideration being given to the highly volatile economic and political conditions there. Moreover, the ruling chamber has examined the specific contracts

mentioned as being terminated at German cross-border interconnection points and found that the terminations of long-term contracts are balanced out by non-yearly subsequent bookings. Aspects apart from the reference price methodology may also be the cause of terminations, for example, as in the specifically mentioned case here, the expiry of a long-term contract into a neighbouring country. Merely pointing to the possibility of LNG options does not provide a suitable starting point for an assessment of the volume risk either.

499 Based on the submission of comments so far, the ruling chamber continues to see no reason why the volume risk could directly take effect. In the course of earlier consultations it was stated anyway that the volume risk would not materialise abruptly when the postage stamp reference price methodology was applied. Other market participants commented that the assumed price elasticities when using a uniform postage stamp as the reference price methodology were unrealistic and that a corresponding degree of price elasticity could also be assumed among the domestic network users.

500 This is supported by the development of the actual tariffs. While under the preceding determinations, tariffs (reference prices in € per kWh/h/a) for the market areas NCG and GASPOOL of €4.21 (NCG) and €3.27 (GASPOOL) for 2020 were consulted on and were also the indicative tariffs in the determinations, the transmission system operators published tariffs of €4.07 (NCG) and €3.36 (GASPOOL) in June 2019 for 2020. The publication in June 2020 for 2021 envisages tariffs of just €3.77 (NCG) and €3.32 (GASPOOL). The tariffs, which are on average lower, do not indicate the materialisation of a volume risk. The drop in the tariff for NCG of about 10 percentage points is due to a reduction in the permissible transmission services revenue, largely because of adjustments to permanently non-controllable costs and effects from the regulatory account.

501 The ruling chamber is convinced that a specific determination of the trend for gas flows in Europe and, derived from that, an assessment of the volume risk cannot be carried out to the exclusion of all doubt anyway. Apart from the fears mentioned above, other aspects also suggest that increased demand is possible. These include in particular the new construction projects for Nord Stream 2 in conjunction with the corresponding pipelines for delivering gas volumes (EUGAL), the continuing plans to construct LNG terminals in Germany and the construction of new gas-fired power plants in connection with the energy transition.

502 Nevertheless, the ruling chamber has included the reporting duty laid down in operative part 10 in this decision. With the aid of the reports, the ruling chamber will be in a position to assess the volume risk in accordance with Article 7 sentence 2(d) of Regulation (EU) 2017/460 on the basis of the actual developments. If necessary, it could re-open proceedings to determine a reference price methodology even before the end of the five-year period laid down in Article 27(5) sentence 4 of Regulation (EU) 2017/460. Apart from the volume risk, other criteria for this could be general

developments in the course of the market area merger or aspects relating to the energy transition and affecting the gas market.

503 The ruling chamber has not used the "interim report" provided by the transmission system operators on 13 September 2019 in accordance with operative part 10(b) sentence 7 of the preceding determinations to assess the volume risk. It turned out that the way in which the interim report had been compiled made it unsuitable for this purpose, since it does not give an overview of the bookings at cross-border interconnection points.

504 The report merely presents and analyses the remaining offered or booked capacity on PRISMA in the annual auction and the first quarterly auction of 2019. It does not analyse the auctions for the second, third or fourth quarters or any auctions at the cross-border and market area interconnection points. Instead, it only examines bundled and firm capacity at cross-border and market area interconnection points. Correspondingly, it considers neither the unbundled capacity coming from Russia (Nord Stream) or that at the borders to Poland and Switzerland. It does not include any bookings that, while interruptible, are still able to cover revenue. Yet the greatest lack of clarity in the report lies in the fact that all the long-term booked capacity from before the partially considered annual and quarterly auctions is not included in the booking ratios at all.

505 In light of the deliberations set out above, the ruling chamber does not consider the postage stamp per type of network point reference price methodology or the function-specific postage stamp reference price methodology to be preferable over the postage stamp reference price methodology in respect of the volume risk.

e) Article 7 sentence 2(e) of Regulation (EU) 2017/460

506 Article 7 sentence 2(e) of Regulation (EU) 2017/460 stipulates that the reference price methodology shall aim at ensuring that the resulting reference prices do not distort cross-border trade. Article 13(1) of Regulation (EC) 715/2009 adds another requirement by stipulating that the approved tariffs or the methodologies used to calculate them must facilitate efficient gas trade and competition. Article 13(2) of Regulation (EC) 715/2009 stipulates that tariffs for network access must neither restrict market liquidity nor distort trade across borders of different transmission systems.

507 The wording gives rise to different requirements for the reference price methodology for various aspects. Article 7 sentence 2(e) of Regulation (EU) 2017/460 merely states that it is sufficient for the resulting reference prices not to distort cross-border trade. This requirement is also included in Article 13(2) of Regulation (EC) 715/2009, although here it applies to borders between different transmission systems. Whereas cross-border trade as defined in Article 7 sentence 2(e) of Regulation (EU) 2017/460 within the context of the internal gas market signifies trade across borders of more than one Member State, the wording of Article 13(2) of Regulation (EC) 715/2009

is different because it refers to the borders between transmission systems. The word "borders" in the latter case may signify not only borders between entry and exit systems but also borders between transmission system operators operating within one and the same entry-exit system. However, in the above-mentioned European context it can be assumed that, after the introduction of the entry-exit system concept, the wording signifies trade across more than one entry and exit system.

508 Given these assumptions, the question therefore arises of whether the reference price methodology and the associated setting of tariffs at cross-border interconnection points leads to a distortion of cross-border trade. Ultimately this comes down to whether a cost-reflective tariff is set at these points. It has already been explained that the uniform postage stamp reference price methodology aims at taking into account the actual costs incurred for the provision of transmission services considering the level of complexity of the transmission network (Article 7 sentence 2(b) of Regulation (EU) 2017/460). It is not appropriate to facilitate cross-border trade over and above this by means of cross-subsidisation to the detriment of intra-system network use. In exceptional cases, such cross-subsidisation may be justified and permissible within the meaning of Article 7 sentence 2(c) of Regulation (EU) 2017/460, such as in the case of determining multipliers with a value of between 0 and 1 for daily standard capacity products and for within-day standard capacity products with the aim of promoting short-term trading in duly justified cases (Article 13(1)(b) sentence 2 of Regulation (EU) 2017/460). But in any case, it cannot be mandatory to determine a reference price methodology that uses cross-subsidisation to facilitate cross-border gas trade. This would also contradict the basic assumptions for the cost allocation assessment in accordance with Article 7 sentence 2(c) in conjunction with Article 5 of Regulation (EU) 2017/460, because it would always be necessary to justify the result of the assessment in cases of excessive facilitation of cross-border trade (see Article 5(6) of Regulation (EU) 2017/460).

509 There are no indications that the postage stamp reference price methodology does not facilitate efficient gas trade and competition (Article 13(1) of Regulation (EC) 715/2009). The determined reference price methodology is a simple, transparent methodology which makes it easier for network users to calculate tariffs and forecast future tariffs and reduces transaction costs compared with a more complex reference price methodology. The same applies to a potential restriction of market liquidity pursuant to Article 13(2) of Regulation (EC) 715/2009.

510 Lastly, the result of the cost allocation assessment can also be used to analyse whether the reference price methodology distorts cross-border trade. The results of the calculations conducted pursuant to Article 5 of Regulation (EU) 2017/460 suggest no disadvantage arises for cross-system network use.

511 The non-pricing of the input of biogas and gas from PtG plants results in a corresponding increase of tariffs at other entry and exit points, which also affects cross-border trade. However, in light of

the very small number of biogas and PtG facilities, at least in the transmission network, and the comparatively low entry capacity, in monetary terms these indirect effects are very small and negligible. As is apparent from Annex 2 in conjunction with the indicative reference price pursuant to Annex 1, such indirect effects are lost revenue from transmission services amounting to 0.04% of total revenue from transmission services. In addition, as outlined above there are important reasons for the input privilege which justify this minor effect on other issues. What is more, the input privilege for biogas is closely connected to the biogas charge, which makes a significant contribution to financing the input of biogas, for example in the form of the network connection and quality processing, but is not a burden on the interconnection points in contrast with other exit points. If the biogas charge did not exist, the costs of these entry points would have to be spread across all points, ie also interconnection points, as part of the general network costs. Consequently, overall the combination of biogas charge and input privilege does not necessarily produce a disadvantage for cross-border trade.

- 512 Based on the information from the transmission system operators on point-specific reference prices determined using the capacity weighted distance reference price methodology pursuant to Article 8 of Regulation (EU) 2017/460 and the capacity forecasts, the ruling chamber calculated the expected revenue at the individual points and used these figures to carry out the cost allocation assessment on an indicative basis for the capacity weighted distance reference price methodology. The ruling chamber carried out these calculations using both the adjusted forecasted capacities and the unadjusted forecasted capacities (disregarding multipliers and discounts) to illustrate the effect of the distance weighting alone. For illustrative purposes, the calculation with unadjusted capacities is also shown in Annex 2 for the uniform postage stamp reference price methodology, even though by definition this calculation results in a comparison index of 0%.
- 513 It can be seen that the distance effect leads on average to more costs being borne by the cross-system network use (comparison index of 5.4% for the variant with unadjusted capacities). In the variant with adjusted capacities, the comparison index is still 0.7%, although in that case discounts for firm capacity products, in particular, lead to a lower cost burden for cross-system network use (on these effects, see section B.I.4). Although this approach to the assessment did not include distance as a cost driver, it nevertheless demonstrates clearly that, because of the larger average distances in cross-system network use (evidently as a result of geographical circumstances), precisely these points are subject to higher tariffs under the capacity weighted distance reference price methodology (see also the analysis of distances in section B.I.5.b)(2)(v)). This does not necessarily constitute a distortion of cross-border trade, for instance if the blanket unconditional approach of using distance as a cost driver actually ensured greater cost-reflectivity (which, in light of the complexity of the transmission networks, is at best questionable; see the explanation in section B.I.5.b)). However, there is at least the risk of distorting cross-border trade when using the

capacity weighted distance reference price methodology, to the extent that this methodology satisfies the criterion detailed in Article 7 sentence 2(e) of Regulation (EU) 2017/460 less well than the postage stamp reference price methodology.

514 In some cases the increases in the reference prices are considerable in comparison with the capacity weighted distance reference price methodology. In this respect reference is made to the explanations given in section B.I.6.

515 In this connection the ruling chamber adheres to the principle of performing the cost allocation assessment without distance as a cost driver. In the case of the capacity weighted distance reference price methodology, too, statements could only be made about matters beyond the scope of the reference price methodology such as storage discounts etc provided that the cost drivers for the cost assessment (in this case the capacity weighted average distance per point) such as capacity and revenue as set out in Article 5(5) of Regulation (EU) 2017/460 are weighted and a capacity weighted entry-exit split is used. If the cost drivers are weighted differently, for example at entry points separately according to intra-system and cross-system network use, arithmetically the results obtained would be different. However, this would merely bring to light the fact that Articles 5 and 8 of Regulation (EU) 2017/460 provide for different methods of calculation. In other words, in the case of the cost allocation assessment it would simply be established that Article 8 of Regulation (EU) 2017/460 allocates a reference price to each entry point and during booking no distinction is drawn according to whether the purpose of the booking is intra-system or cross-system (which is in fact not even possible in an entry and exit system and when booking freely allocable capacity).

516 With regard to the proposed postage stamp per type of network point and function-specific postage stamp reference price methodologies, it may be the case that a general rise in cost at domestic exit points (compared with the uniform postage stamp) and the associated reduction in tariffs at exit points to neighbouring entry and exit systems would facilitate cross-border trade as a result of subsidisation of this nature. The associated questions relating to cost-reflectivity, non-discrimination and the volume risk have already been discussed in sections B.I.5.b) to B.I.5.d). As shown, these deliberations do not lead to the conclusion that facilitation of cross-border trade is appropriate. The postage stamp reference price methodology, on the other hand, precisely meets the criteria set out in Article 7 sentence 2(e) of Regulation (EU) 2017/460, because it does not distort cross-border trade through equal treatment.

f) Interim result for Article 7 sentence 2(a) to (e) of Regulation (EU) 2017/460

517 Taking an overall view of the criteria listed in Article 7 sentence 2(a) to (e) of Regulation (EU) 2017/460, the uniform postage stamp reference price methodology meets all the requirements and is superior to the capacity weighted distance reference price methodology set

out in Article 8 of Regulation (EU) 2017/460. Any lower degree of cost-reflectivity as a result of average tariffs is offset by significantly greater transparency and better forecasting quality. The uniform postage stamp reference price methodology guarantees a high degree of non-discrimination with respect to tariff setting. Access to the VTP is also uniformly priced in an appropriate manner by the postage stamp reference price methodology, without an adjustment in accordance with Article 6(4)(b) of Regulation (EU) 2017/460 having to be carried out. As discussed, there are no compelling reasons to determine the proposed postage stamp per type of network point or function-specific postage stamp reference price methodology instead of the uniform postage stamp methodology. Any volume risk is adequately addressed by the reporting duty discussed above.

g) Article 13(1) of Regulation (EC) 715/2009

- 518 Other criteria for the assessment of the reference price methodology which are not already specified in detail by Article 7 sentence 2(a) to (e) of Regulation (EU) 2017/460 derive from the reference in Article 7 sentence 1 of Regulation (EU) 2017/460 to Article 13(1) of Regulation (EC) 715/2009. Namely, Article 13(1) of Regulation (EC) 715/2009 stipulates that the approved tariffs or the methodologies used to calculate them must, in addition, take into account the need for system integrity and its improvement and provide incentives for investment and maintaining or creating interoperability for transmission networks.
- 519 In the opinion of the ruling chamber, a transparent and easily understandable reference price methodology such as the uniform postage stamp is particularly suited to contributing to the interoperability of the transmission networks and is better at achieving this than the capacity weighted distance reference price methodology pursuant to Article 8 of Regulation (EU) 2017/460 or the function-specific postage stamp reference price methodology, which need difficult agreements between the transmission system operators for their calculation. It is particularly the case that tariff setting at virtual interconnection points in accordance with Article 22 of Regulation (EU) 2017/460, which requires agreement between the TSOs concerned, is significantly facilitated by uniform pricing anyway. This applies especially in cases where the only reason why multiple TSOs offer the corresponding interconnection points is because of their involvement in pipeline companies and discrepancies have arisen in the past between the fundamental capacity rights and the marketed capacities. The proposed postage stamp per type of network point reference price methodology may also satisfy this criterion. In contrast, aspects of network integrity and of incentives for investments are not affected by an abstract reference price methodology, in the opinion of the ruling chamber. These are adequately addressed by the provisions of the GasNEV and the ARegV.

h) Principle of energy solidarity

520 During court proceedings against the preceding decisions, BK9-18/610-NCG and BK9-18/611-GP, the argument was put forward that the uniform postage stamp reference price methodology breaches the principle of energy solidarity laid down in EU primary law (Article 194(1) of the Treaty on the Functioning of the European Union, TFEU). It was said that possible tariff and price increases in Member States bordering Germany or indirectly supplied via German transit routes had not been weighed up against Germany's interest in the application of a fully uniform postage stamp methodology.

521 It is already questionable whether the principle of energy solidarity applies in these circumstances, in which no EU institution is acting. In any case, Article 7 of Regulation (EU) 2017/460 makes some aspects of energy solidarity a direct part of the legally required assessment. For example, in accordance with Article 7 sentence 2(e) of Regulation (EU) 2017/460, it must be ensured that the reference prices resulting from the determined reference price methodology do not distort cross-border trade. Article 7 sentence 2(c) of Regulation (EU) 2017/460 further requires ensuring non-discrimination and preventing undue cross-subsidisation. The consideration of network users, who must not be discriminated against, thus covers the interests of those gas traders supplying natural gas via Germany to final customers in other Member States; in fact, in conjunction with (e), there is a particular emphasis on them. As the network tariffs paid by these network users have a direct effect on consumer prices in other countries, there is no separation between the interests of the Member States and their network users. It is therefore not evident which aspects of the principle of energy solidarity should be examined in addition to the requirements of the assessment set out in Article 7 of Regulation (EU) 2017/460.

522 The ruling chamber has examined in detail whether the tariffs resulting from the determination are appropriate for the network users active in the market area, including and in particular the ones that are active across borders (see in particular the explanations in sections B.I.5.b), B.I.5.c) and B.I.5.e)).

i) Proportionality of the uniform postage stamp reference price methodology

523 The established uniform postage stamp reference price methodology that is to be applied jointly by the transmission system operators in accordance with Article 10(1) of the Regulation is also proportionate.

524 The legitimate public purpose of the reference price methodology is not, as is sometimes assumed, to cross-subsidise some network users, but rather to determine a method of calculating reference prices that is in particular transparent, cost-reflective and non-discriminatory. As explained in detail in sections B.I.2, B.I.4, and B.I.5.a) to B.I.5.g), the uniform postage stamp reference price methodology is suited to meeting these requirements.

525 There are no other reference price methodologies that meet these purposes to the same degree, thus the uniform postage stamp reference price methodology is also necessary. Separate tariffication in accordance with the provisions of the GasNEV would already be legally impermissible owing to the lack of a compensation mechanism. The determination of a compensation mechanism for use with a separately applicable reference price methodology is not the object of this decision and, as explained in section B.I.5.b)(1)(iii), would be associated with significant legal and practical difficulties. Furthermore, the possibility could not be ruled out that a compensation mechanism of this type would lead to compensation payments comparable to those arising with a reference price methodology to be applied jointly. Other reference price methodologies such as the postage stamp tariff per type of network point and the function-specific postage stamp do not meet the requirements to the same extent, as set out.

526 The uniform postage stamp reference price methodology is also presented as being appropriate. If it leads to higher and lower revenues for certain transmission system operators and as a consequence corresponding compensation payments, this is an inherent element of an entry and exit system with multiple transmission system operators. Whichever reference price methodology is used, there will be payers and recipients in this configuration. That would also apply fully to the capacity weighted distance reference price methodology, the postage stamp per type of network point reference price methodology and the function-specific postage stamp reference price methodology. However, a reference price methodology pursuant to Article 7 of Regulation (EU) 2017/460 should not be measured against this criterion but against the question as to whether the methodology is in particular transparent, cost-reflective and non-discriminatory for the system as a whole. That said, these criteria are not met per se by determining a reference price methodology that has the aim of minimal compensation payments between the transmission system operators. Neither, therefore, can it ultimately be a matter of which transmission system operators obtain lower revenues and which transmission system operators obtain higher revenues following the joint use of a reference price methodology, provided that this methodology is in particular transparent, cost-reflective and non-discriminatory for the specific entry and exit system. It may be that, under the postage stamp per type of network point and function-specific postage stamp reference price methodologies, the additional revenue will be lower for some transmission system operators so they will have to pay lower compensation payments accordingly. Conversely, however, this situation means that other transmission system operators will be subject to an additional burden with this methodology compared with that of a uniform postage stamp. Furthermore, it is hardly possible to speak of a specific burden because every transmission system operator may generate their revenue cap regardless of the reference price methodology. Any additional risks on account of the obligation to generate additional revenue compared with the status quo are reflected by the determination of an effective compensation mechanism in accordance with Article 10(3) sentence 1 of Regulation (EU) 2017/460.

527 Furthermore, in legal terms the provisions of Regulation (EU) 2017/460 require that there are official regulations to determine the tariffs for transmission services and non-transmission services. In this respect the transmission system operators anyway no longer have the freedom to use the infrastructure in their ownership (Article 14(1) of the German Basic Law, GG) or to set tariffs for their services (Article 12(1) sentence 2 GG). As these provisions are transparent, cost-reflective and non-discriminatory, the ruling chamber considers the provisions to be appropriate.

6. Comparison with the capacity weighted distance reference price methodology, including indicative reference prices, in accordance with Article 26(1)(a)(vi) of Regulation (EU) 2017/460

528 According to Article 26(1)(a)(vi) of Regulation (EU) 2017/460, in addition to the comparison of the proposed reference price methodology with the capacity weighted distance reference price methodology pursuant to Article 8 of Regulation (EU) 2017/460, a comparison of the respective indicative reference prices must be carried out, Article 26(1)(a)(iii) of Regulation (EU) 2017/460.

529 Annex 3 shows the point-specific reference prices calculated using the capacity weighted distance reference price methodology pursuant to Article 8 of Regulation (EU) 2017/460 for an entry-exit split of 50/50 and 37/63 (each after rescaling in accordance with Article 6(4)(c) of Regulation (EU) 2017/460). The reference prices resulting from the postage stamp reference price methodology are also shown in Annex 3. It should be noted that in addition to the reference price of €3.67 per kWh/h/a (ie taking account of all recently undertaken adjustments, entry-exit split 36/64), the reference price consulted on in March of €3.69 per kWh/h/a (entry-exit split of 37/63) is also shown. The latter was shown additionally and used in comparative calculations because the reference prices of the capacity weighted distance were also calculated without the recently undertaken adjustments. In addition, the average reference prices under the capacity weighted distance reference price methodology (weighted with the forecasted contracted capacity) and the price differences compared to the postage stamp reference price methodology are shown in Annex 2 for each type of point. Changes to the proposed reference price methodology arise not only from taking account of distance but also because of the 50/50 entry-exit split referred to in Article 8(1)(e) of Regulation (EU) 2017/460.

530 Annex 2 also contains average reference prices in accordance with the capacity weighted distance reference price methodology that would result with an entry-exit split in accordance with the uniform postage stamp.

531 If the differences are evaluated it becomes apparent that a capacity weighted distance reference price methodology leads to a price increase at interconnection points. The same applies to a calculation with an adjusted entry-exit split. Against this background, the uniform postage stamp

reference price methodology already confers privileged status on interconnection points compared with the reference price methodology provided for in Regulation (EU) 2017/460.

532 For example, for booking at interconnection points (entry and exit) under the capacity weighted distance reference price methodology with an adjusted entry-exit split, on average €7.62 per kWh/h/a would have to be calculated or €8.08 for an entry-exit split of 50/50 (instead of €7.38 per kWh/h/a according to a uniform postage stamp). Specifically, for MEGAL, for example, in the case of entry at the border with Czechia and exit to France, the result under a uniform postage stamp methodology would be a reference price of twice €3.69 per kWh/h/a, ie €7.38 per kWh/h/a. Using the capacity weighted distance approach, a total reference price of €7.75 per kWh/h/a is obtained given a 50/50 entry-exit split or approximately €7.16 per kWh/h/a given an entry-exit split corresponding to the uniform postage stamp. Corresponding bookings on the TENP would result in total reference prices of €8.63 and €8.43 per kWh/h/a respectively. This illustrates the fact that if distance is taken into account as a cost driver the tariffs on so-called transit pipelines generally rise or lie within the range of a postage stamp tariff. In order to compare the reference prices, the input parameters at the time of the consultation were taken for all methodologies (see above).

7. Allowed revenue, transmission services revenue and ratios for the transmission services revenue pursuant to Article 26(1)(b) of Regulation (EU) 2017/460

533 The requirements set out in Article 26(1)(b) in conjunction with Article 30(1)(b)(i), (iv) and (v) of Regulation (EU) 2017/460 should be seen in a thematic context with the reference price methodology established according to operative part 1. Accordingly, the indicative information relating to the allowed revenue of the transmission system operators, including transmission services revenue and ratios for the transmission services revenue, must be published (in this context only the entry-exit split and the intra-system/cross-system network use split pursuant to Article 30(1)(b)(v)(2) and (3) of Regulation (EU) 2017/460 are relevant). The indicative information is detailed in Annex 1.

534 The entry-exit split represents a logical weighting of the transmission services revenue with respect to the entry and exit points on the basis of the forecasted capacities. As the level of capacity booking is in principle to be regarded as an indicator for the use of the key cost driver figure and therefore for the level of the costs associated with it, the (indirectly) defined capacity weighted entry-exit split reflects the costs and revenue that have to be allocated appropriately to the entry and exit side in a cost-reflective manner.

535 As an alternative to this, the entry-exit split could be determined ex ante with a fixed value. However, any such determination is always of a sweeping nature because it is not possible to allocate costs specifically to the entry and exit side. Inasmuch as standardised assumptions are made based on type, for example that costs would have to be transferred to the exit points

because these supposedly tend to be lower cost than entry points, the implicitly determined capacity weighted entry-exit split in the booking situation in the German market area also does justice to this. It thus also leads to easing at the entry points and the related assumed increased liquidity at the VTP. No compelling, substantiated indications for a different entry-exit split were submitted in the context of the consultations to date. Capacity weighting, on the other hand, constitutes an objective and transparent yardstick.

8. Simplified tariff model according to Article 26(1)(d) of Regulation (EU) 2017/460

536 In accordance with Article 26(1)(d) in conjunction with Article 30(2) of Regulation (EU) 2017/460, a consultation on an indicative basis is to be carried out on a simplified tariff model.

537 With regard to the provisions set out in Article 30(2)(a)(ii) and (2)(b) of Regulation (EU) 2017/460, the ruling chamber has made a simplified tariff model available in Annex 5 which can be used to estimate the development of transmission tariffs for the remainder of the time in the third regulatory period. More detailed assumptions regarding the development of capacities and transmission services revenue, apart from the overall consumer price index (section 8 ARegV) and the general sectoral productivity factor (section 9 ARegV), are not included in the tariff model. At the present time, such forecasts relating to 2022 would be overly driven by assumptions and would therefore not be a helpful indicator for the development of tariffs. The ruling chamber considers it sufficient for the transmission system operators to present forecasts as of the tariff year 2021 and in so doing include the implementation of the provisions of Regulation (EU) 2017/460 in the forecasts. Assumptions on the development of the relevant revenue caps and capacities can be made by the respective user in the model.

538 The reference prices valid for the tariff year 2020 are also shown in Annex 1.

9. Determining the reference price in 2021

539 Calculating the reference prices in 2021 is fraught with difficulty because of the market area merger taking place in October of that year. According to Article 3 sentence 2 point 1 of Regulation (EU) 2017/460, the reference price always relates to a capacity product with a duration of one year. The transmission system operators' revenue caps which are used to determine the revenues to be generated through transmission services are also determined on a yearly basis (calendar year). The object of the calculation must therefore be a yearly product that is priced with a uniform tariff for the entire period from January to December 2021. However, this is not possible when linked to the (likely) actual circumstances. As a result of the merging of the existing NetConnect Germany and Gaspool market areas, there cannot be a uniform reference price for the whole of 2021. For the months January to September, the two market areas have each set their own reference price in accordance with decisions BK9-18/610-NCG and BK9-18/611-GP of 29 March

2019. From October onwards there will be a new reference price in accordance with the provisions of this decision, the level of which will differ from the previous two reference prices even though it will have been determined using the same methodology. Furthermore there will be considerable change to the existing capacity structure. Firstly, capacity products that provided for entry or exit at the current market area interconnection points will no longer exist in that form. Secondly, freely allocable capacity products will change their character and in future will either cover a considerably wider geographical area or will become conditional products, as a consequence of which in accordance with Article 4(2) of Regulation (EC) 2017/460 and operative part 3 of this decision the rules for their pricing will change. This situation can be redressed by the reference prices for both parts of the 2021 calendar year being formed on the basis of hypothetical annual forecasts. When the reference prices for quarters 1 to 3 were calculated, therefore, a booking forecast was made for the whole of 2021 which assumed that the NetConnect Germany and Gaspool market areas would continue to exist in the fourth quarter. In contrast, when the reference price for the fourth quarter is calculated, a booking forecast must be made that assumes the existence of a joint German market area for the whole of 2021. For the fourth quarter, this derives from the operative part 1 sentence 4 of this decision. See the explanations in section B.I.3 for the details arising from the amendment of the MARGIT 2021 determination for the fourth quarter of 2021.

II. Discounts at storage facilities pursuant to Article 26(1)(a)(ii) of Regulation (EU) 2017/460 (operative part 2)

540 The decision pursuant to operative part 2 is based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 27(4) sentence 1, Article 26(1)(a) and Article 9(1) of Regulation (EU) 2017/460. Article 9(1) of Regulation (EU) 2017/460 stipulates that a discount of at least 50% shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities, 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 interconnection point.

1. Discount level

541 The regulation does not set an upper limit to this discount; the only requirement is for a discount of at least 50% to be applied. In addition, the regulation requires that the discount be applied under only one condition: if a storage facility which is connected to more than one transmission or distribution network is used to compete with an interconnection point, a discount may not be applied. According to recital 4 of Regulation (EU) 2017/460, storage facilities can make a general contribution to security of supply and system flexibility in transmission systems. This fact is to be taken into account in the form of a discount on the transmission tariff. Moreover – no doubt in the

interest of setting cost-reflective tariffs – the aim is to avoid double charging for transmission to and from storage facilities.

- 542 These considerations are applicable and are particularly important when determining the discount to be applied at entry and exit points at storage facilities. Storage facilities do indeed make a significant contribution to security of supply and system flexibility. In certain situations of higher demand or low supplies, for example during cold spells or during the winter months, storage facilities can balance out restrictions in gas supply. Gas reserves stored in the storage facility can be made available to the system when demand is high and possibly cannot be met by other means. To this extent a storage facility can, to a certain degree, perform the function of a network substitute. Storage facilities also have an important role to play in the provision of balancing gas.
- 543 In addition, it is appropriate in any case, partly in respect of setting cost-reflective tariffs, to apply a mandatory discount to tariffs at entry and exit points at storage facilities. An entry tariff for gas input into the transmission system and an exit tariff for gas offtake at the final customer or in transit are already calculated for the capacity delivered into and later off-taken from the storage facility. Storage facility users thus already bear a share of the costs of transport infrastructure. Charging an additional full entry and exit tariff at storage facilities would effectively constitute double charging, which is to be avoided according to the considerations of Regulation (EU) 2017/460; overall, the tariffs charged would be twice as high even though putting gas into or taking gas out of storage does not result in double the costs for the network operator and does not put twice as much strain on the system.
- 544 Consequently, a 75% discount must be applied to capacity-based transmission tariffs at entry and exit points at storage facilities 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 interconnection point. This discount is to be applied to the tariff for the respective booked capacity product. The tariff to be used as the basis for the discount therefore depends on whether the capacity product to be booked is firm, interruptible or with an attached condition.
- 545 The ruling chamber considers a discount of 75% in this respect to be appropriate. Some market participants often suggest that an even higher discount of up to 100% should be applied, thus fully removing tariffs at entry and exit points at storage facilities. In contrast, prior to the entry into force of Regulation (EU) 2017/460 the majority of network operators set a discount amounting to 50%, in conformance with the national provisions to the extent that they previously applied as established by the decision dated 24 March 2015, file reference BK9-14/608. In the opinion of the ruling chamber, however, the set discount of 75% takes account of the principle of the cost-reflectivity of tariff setting at storage facilities required under Regulation (EU) 2017/460 and at the same time adequately reflects the general contribution made by storage facilities to security of supply and system flexibility. The entry and exit tariffs at storage facilities are therefore reduced

by a significant amount, which in the opinion of the ruling chamber not only reflects the contribution to security of supply made by storage facilities but also further enhances the attractiveness of storage facility usage, supporting security of supply. Furthermore, in the opinion of the ruling chamber the set discount takes appropriate account of the costs arising within a network for transport in connection with storage facility usage. On the one hand, there is acknowledgement that there would be no justification to charge double the tariff. On the other hand, it also takes into account the fact that there is usually an additional strain on the network infrastructure when a storage facility is used to transport gas, such that complete exemption from tariffs by applying a discount of 100% is out of the question. Otherwise, the costs arising from this transport would always be spread indirectly among all network users and would not be allocated to the user who has initiated this network use or profits from it.

546 No aspects were raised in the consultation that would justify a different assessment. As far as alternative flexible products such as imports via LNG terminals are concerned, it should be noted that the aim of the storage discount is not to ensure that the use of storage is economically equivalent to importing via LNG terminals. In fact, the discount is intended to reflect the costs and benefits of storage for the transmission system. The discount for temperature-dependent capacity was also mentioned, but this is a further systematic aspect that can lead to another discount in accordance with Article 4(4) of Regulation (EU) 2017/460, but cannot directly influence the level of the storage discount, in particular for firm, freely allocable capacity. Regarding the investment costs for the connection of storage facilities to the network and any capacity expansion, a storage discount of 75% still allows for an appropriate participation in the costs. Given the significance of storage for security of supply and system flexibility, for systematic reasons the costs do not have to be covered completely.

2. Storage facilities which are connected to more than one transmission or distribution network

547 Capacity bookings at storage facility connection points which are connected to more than one transmission or distribution network can only have a discount applied if evidence has been provided to the network operator that the storage facility cannot be used by the respective user for a discounted border crossing or swaps within the storage facility followed by a discounted border crossing in the event of actual use (ie in the case of a capacity booking, not generally at the level of the storage facility). The above follows from the provision in Article 9(1) of Regulation (EU) 2017/460 according to which a discount on transmission tariffs at entry points from and exit points to storage facilities shall be applied unless and to the extent a storage facility is used to compete with an interconnection point. As detailed in recital 4 of Regulation (EU) 2017/460, the background for this provision is the potential for discrimination which arises at such storage facilities where discounted entry and exit tariffs are applied in that they can be used as an

interconnection point but this usage would be discounted if the discount were applied. Network users who (have to) book a normal interconnection point without a discount would therefore be put at a disadvantage because they would have to pay a higher transmission tariff for crossing a border at an interconnection point than the network user who uses the storage facility as a "discounted" interconnection point.

548 To be certain that the storage facility at which a discounted transmission tariff is set will not be used to compete with an interconnection point, thus resulting in discrimination against certain network users, there may be the possibility of entirely ruling out discounts being applied to transmission tariffs at entry and exit points at such storage facilities, ie to set these tariffs without any discounts. However, in the opinion of the ruling chamber this would contradict the intention expressed in Regulation (EU) 2017/460 that discounts should generally be applied to transmission tariffs at entry points from and exit points to storage facilities and would also disregard the undoubted contribution to security of supply and system flexibility made by storage facilities which are connected to more than one transmission or distribution network. It is therefore not appropriate to completely prohibit the discounting of capacity tariffs at such storage facilities.

549 It thus appears to the ruling chamber to be advisable to approve the mandatory application of a discount of 75% to transmission tariffs at entry points from and exit points to storage facilities under certain conditions. Accordingly, application of this discount is to be stipulated if the network operator has received evidence in each individual case that the storage facility – for reasons such as contractual prohibitions – is not being used as a "discounted" interconnection point in the specific case in question (ie in the case of a capacity booking, not generally at the level of the storage facility). The storage facility operator must provide the network operator with such evidence. In cases where such evidence is lacking, the tariff calculated using the reference price methodology must be set without any discount applied. Similarly, the tariff calculated according to the reference price methodology without a discount applied is to be set if it is intended from the outset for there to be a possibility of using the storage facility as an interconnection point in the corresponding booking case.

550 It follows that, whatever the network or storage facility user's booking situation, there are only two alternatives at storage facilities which are connected to more than one transmission or distribution network: firstly, the storage facility can be used by the network and storage facility user as a storage facility without the potential of being used as an interconnection point, in which case input and offtake of the gas quantities stored with the corresponding capacity is only possible within Germany (flexibility in the sense of security of supply is also ensured in these cases, see B.II.2.b)); in such cases a discount of 75% must be applied to the transmission tariff. Secondly, the storage facility can be used by the network and storage facility user as an interconnection point in which case input and offtake of the gas quantities stored with the corresponding capacity is also possible

in neighbouring countries without other conditions; in these cases, however, a discount may not be applied. It is not necessary to allocate a storage facility as a whole to these alternatives; rather, a differentiated analysis must be carried out at the level of the respective booking.

551 If this results in not only the actual use of the storage facility as an alternative to an interconnection point leading to a rise in costs (or the lack of a fall in costs) of capacity but merely the option to use it, regardless of its actual use, it should be noted that general economic principles set out that options have a value and thus a higher price. This option is acquired with the corresponding capacity and should therefore also be reflected in the tariff for the capacity.

a) No determination of a rebooking tariff

552 There was a call in the consultation for the re-introduction of the rebooking model from the BEATE determination (BK9-14/608, decision of 24 March 2015, operative part 2(d) sentence 5 in conjunction with provision 2(5) and (6)), but the fact is that Regulation (EU) 2017/460 contains no legal basis for such a system. Regulation (EU) 2017/460 does not empower the ruling chamber to subsequently impose tariffs to correct a discount granted without cause. The Regulation only recognises two categories of tariffs that transmission system operators can impose on their customers: transmission tariffs (Article 4(3) of Regulation (EU) 2017/460) and non-transmission tariffs (Article 4(4) of Regulation (EU) 2017/460).

553 Transmission tariffs are imposed at the time at which the capacity can be used for transport (in this case, into the storage facility) and not at a possibly much later time at which the stored gas is transported further and may or may not leave the market area. Article 9(1) of Regulation (EU) 2017/460 does not contain anything to the contrary.

554 This can also be seen in the history of the Regulation. Originally, Article 9(1) of Regulation (EU) 2017/460 was supposed to include a passage stating that it should be possible to use discounting, taking into account a transfer charge, when setting transmission tariffs at entry points from and exit points to storage facilities which are connected to more than one transmission or distribution network. However, this passage was deleted and replaced by the version currently in force, in which no mention of this type of charge is made any more; this makes it evident that there is no provision for such a mechanism in Regulation (EU) 2017/460. Furthermore, the wording in recital 4 of the Regulation, according to which these mechanisms to avoid such discrimination should be included, suggests that any kind of discrimination should be avoided from the outset and not offset ex post through the use of certain instruments.

555 The rebooking from the discounted to the undiscounted section cannot be classed as a non-transmission service either. The transmission system operator does not provide any type of service other than transport. There would only be a subsequent modification of the transmission

tariff because the transmission service was used for another purpose than the one originally intended, from the ex post perspective.

b) Flexibility of storage use

- 556 Gas volumes put into storage with and without a discount are available without restriction at all storage facilities in order to guarantee security of supply in the relevant market areas, ie at storage facilities connected to more than one transmission or distribution network and at storage facilities connected to only one transmission network. In this regard in the case of volumes put into storage with a discount from within the German market area it is necessary to book discounted entry capacity back to the original market area and capacity for the market area switch. Especially for customers with long-term bookings who, when putting their gas into storage, do not yet want to specify its ultimate destination, this opens up the possibility of responding flexibly to market opportunities and if applicable arranging a crossing to an adjacent market area despite discounted input.
- 557 Gas volumes put into storage from outside Germany cannot be withdrawn into the German market area directly using an already booked, discounted entry capacity. To do this, it would be necessary to book additionally an undiscounted entry capacity for the withdrawal from storage and a discounted exit capacity for the putting into storage. This would be the only way for the shipper to prove that the cross-border gas volumes had not been transported using discounted capacity.
- 558 Instead of such bookings, on application from the shipper the transmission system operator concerned may also issue an invoice for the corresponding tariffs. As the gas remains in the storage facility anyway or is merely to be withdrawn to the adjacent market area, from the regulatory standpoint no corresponding bookings of real capacities are required. If a network and storage facility user wishes to use an undiscounted capacity for the withdrawal of discounted stored volumes back into the German market area, that user is free to do so. Compulsion to rebook a discounted capacity is not appropriate.
- 559 If it can be proven that volumes stored without a discount are fed back into the German market area, a discounted entry capacity can be used for this purpose. In such cases the storage facility is not used to compete with an interconnection point at the time of withdrawal, so the exception allowed in Article 9(1) of Regulation (EU) 2017/460 regarding the discount generally to be granted at storage facilities does not apply to the entry capacity. However, with undiscounted exit capacity and the corresponding allocation of volumes, the network and storage facility user putting the gas in storage has acquired full flexibility allowing potential use of the storage facility to compete with an interconnection point and the price is to be set without a discount accordingly. Retrospective discounting of the exit capacity used for storing these volumes is thus out of the question. This applies both in the event that the gas volumes are traded (possibly multiple times) between being

put into and taken out of storage and the event that the volumes remain with the network and storage facility user putting the gas into storage. In these cases, on the one hand in relation to putting gas into storage the situation remains unchanged with undiscounted exit capacity, with which full flexibility was acquired, and on the other hand in relation to withdrawal from storage the option remains of using a discounted entry capacity back into the German market area, which when taken advantage of does not constitute use to compete with an interconnection point. The bookings of exit and entry capacities and the associated input into and withdrawal from storage must therefore be considered in isolation. It is not appropriate to deny the acquirer or owner of the volumes the discount for the entry capacity provided no switch to another market area takes place. It is appropriate, however, not to apply a discount for the exit capacity because a price must be set for the acquisition of flexibility. Whether use or non-use is deemed to compete with an interconnection point is therefore determined by the network user at the time of booking the corresponding capacities.

c) Non-discrimination

- 560 Taken as a whole, the rules of storage discounts are non-discriminatory, even though the legal consequence of the discounting rule actually takes effect when the capacity is booked and not only when the gas is withdrawn from storage. For a system to be non-discriminatory, it is not necessary for an undiscounted withdrawal into an adjacent market area to be connected with the repayment of the storage discount when the gas is put into storage.
- 561 In accordance with Article 9(1) of Regulation (EU) 2017/460, the discount is to be granted on the transmission tariff unless and to the extent that a storage facility which is connected to more than one transmission or distribution network is used to compete with an interconnection point. Therefore, a discount can only be granted on the exit tariff at such a storage facility if it is ruled out when the tariff is imposed that the network user will later inject the corresponding gas volumes into a market area other than the originating market area when the gas is withdrawn from storage.
- 562 Having carefully weighed up the interests of network and storage customers, both against each other and in the light of the requirements of a functioning and coherent regulatory framework, the ruling chamber takes the view that this provision is a balanced solution. Storage customers wanting to keep open the option of changing market area have to pay for it, even if they might not make use of the option later on. The pricing of the options is in line with the recognised economic principle that just the option of accessing a service has an economic value.
- 563 Moreover, even storage customers that initially take the discount are not hindered in their flexibility; they can still decide to change market area at a later point in time. They then merely have to book – discounted – entry capacity into the originating market area and then, like any other network user, undiscounted capacity at the interconnection point or at the storage facility for the market

area switch. These storage users then even have the advantage of not actually having to acquire capacity (no booking/offer risk). Rather, the transmission system operator issues an invoice for the tariffs.

564 The economic result is therefore that such a customer pays half a capacity tariff more than a customer who chose to do without a discount from the start, because the former has to make use of two additional capacities, although each of these is discounted by 75%. This half-tariff is thus the price of the unused option.

565 Regarding a perceived discrimination between long-term and short-term storage customers on the basis that customers wanting to withdraw their gas again within a short time typically already know its ultimate destination when it is put into storage and thus are rarely forced to pay additionally for an option they may not need, it is doubtful whether this constitutes unequal treatment of different customer groups. In principle, all storage customers have the option of putting their gas into storage for a short or long period. In any case, the unequal treatment is justified because it is necessary to prevent discounted border crossings. It actually serves to prevent discrimination against network users booking exit capacity at cross-border interconnection points compared to customers who would otherwise get the same service at a price 75% lower, which would then have to be paid by everyone else in the community of network users. No other means of preventing this kind of discounted market area crossing is evident. The tariff for the exit capacity is due when the gas is put into storage if the future use of the gas is not yet foreseeable. Thinking logically, therefore, it must be clear at this time whether a discount is to be granted or not.

d) Seasonal factors

566 Any year-round discounts other than the uniform discount of 75% applicable to transmission tariffs at entry points from and exit points to storage facilities are not permissible for FZK at these points. To the extent that Regulation (EU) 2017/460 governs the application of seasonal factors, this relates to interconnection points only. From the legal perspective, in accordance with Regulation (EU) 2017/460 in the absence of an enabling provision there is no possibility of regulating seasonal factors at entry and exit points at storage facilities on this basis. Accordingly, the application or non-application of seasonal factors at points other than interconnection points is carried out on the basis of the BEATE 2.0 determination (BK9-18/608), which is based on national legislation. Insofar as the application of seasonal factors is permissible under national legislation or determinations based on such legislation, operative part 2 of this determination does not preclude this, because in the opinion of the ruling chamber seasonal factors do not constitute discounts within the meaning of this determination.

III. Firm capacity products to which a condition is attached pursuant to Article 4(2) of Regulation (EU) 2017/460 and benchmarking in accordance with Article 6(4)(a) of Regulation (EU) 2017/460 (operative part 3)

567 The decision pursuant to operative part 3 is based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 4(2), Article 6(4)(a) and Article 7 of Regulation (EU) 2017/460 in conjunction with Article 13 of Regulation (EC) 715/2009.

1. Firm capacity products to which a condition is attached pursuant to Article 4(2) of Regulation (EU) 2017/460

568 Pursuant to Article 4(2) of Regulation (EU) 2017/460, transmission tariffs may be set in a manner as to take into account the conditions for firm capacity products. Article 4(2) of Regulation (EU) 2017/460 contains no further provisions. However, standards for the determination of discounting may be taken from Article 7 of Regulation (EU) 2017/460 in conjunction with Article 13(1) of Regulation (EC) 715/2009. Accordingly, among other things the transmission tariffs must be non-discriminatory and facilitate efficient gas trade and competition, while at the same time avoiding undue cross-subsidies between network users. From these general provisions it ensues that the discounting of tariffs for conditional firm capacity products – like tariffs for firm or interruptible standard capacity products – must be designed in an appropriate manner.

a) Provision in operative part 3

569 Tariffs for conditional firm capacity products, with the exception of transmission tariffs at entry points from and exit points to storage facilities and taking into account the above considerations with respect to appropriateness and in particular with respect to the prohibition of undue cross-subsidisation, must not be lower as a result of discounting than the capacity tariffs for the interruptible standard capacity product with the lowest discount at this point. Conditional firm capacity products comprise all capacity products which are neither a firm capacity product without any condition nor an interruptible capacity product. Products to be considered, therefore, according to operative part 1a) of Decision BK7-18-052 of 10 October 2019, are capacity products with conditional firmness and free allocability (bFZK) or products with firm, dynamically allocable capacity (DZK). A corridor is thus defined for the setting of tariffs for conditional firm capacity products, the upper limit of which is the tariff for a firm capacity product without any condition (the objectively most valuable product) and the lower limit the tariff for an interruptible capacity product, which is to be interrupted first and thus has objectively the lowest economic value.

570 In contrast to the FZK product (firm usage possibility only) and the uFZK product (interruptible usage possibility only), the DZK product has parts of both forms of use depending on the

corresponding entry or exit point chosen. It should thus be located between the two other products. Moreover, the KASPAR determination set out that in the event of transportation congestion, all transportation on the basis of uFZK products must be interrupted first before, if it is still necessary, any interruption of a DZK product.

- 571 Capacity is marketed in open auction proceedings and is thus valued according to objective criteria. Objectively, products with a firm component are always more valuable than those that may not be able to be used at all. This confirms the position of DZK between the FZK and the uFZK products. Correspondingly, these considerations also apply to bFZK products in which the firm part is determined not using a combination of entry and exit points but rather, in accordance with the KASPAR determination, using pre-defined, external conditions (temperature, flow or a combination of temperature and flow).
- 572 The lower limit formed by the tariff for an interruptible product is justified by the fact that, viewed objectively, interruptible capacity is a lower quality product than the other capacities. An interruptible capacity product is always interruptible. A network customer must always reckon with the possibility of an interruptible capacity indeed being interrupted, even if the probability of an interruption may be very low. There are no circumstances where this potential for being interrupted is completely absent (in actual fact interruption is improbable in many cases). In contrast, this is by definition not the case for conditional firm capacity products. Even though such products – depending on the chosen product – likewise carry some restrictions and as a result may be rated differently, they always have a part of the product that is to be classified as firm capacity. In this case, in contrast to interruptible capacities, network users can be confident that they will be able to use the booked product with certainty provided that they keep within the framework of the condition attached to the firm capacity product. Because of this "firm product part", it is objectively the case that conditional firm capacity products must be classed as higher quality than interruptible ones; in this sense, interruptible capacities objectively represent the "most inferior" product. Accordingly, it is appropriate that the network operator is not permitted to set a lower tariff for conditional firm capacity products than for interruptible capacities.
- 573 The provision specified in operative part 3 does not contradict the requirements set by Article 7 of Regulation (EU) 2017/460 for the choice of reference price methodology. To start with, the transparency of the reference prices within the meaning of Article 7 sentence 2(a) of Regulation (EU) 2017/460 is not affected: the prices resulting from the discounts for conditional firm capacity products in conjunction with the transmission system operators' respective contractual conditions are transparent and understandable. The effect of discounting on the other prices can be reproduced using the rescaling mechanism detailed in Article 6(4)(c) of Regulation (EU) 2017/460. As a general rule, the postage stamp method delivers sound and sufficient cost reflectivity within the meaning of Article 7 sentence 2(b) of Regulation (EU) 2017/460 with respect to firm capacity

products. However, the conditions that come into consideration here and the resulting lower quality justify a discount that ranges above the framework of that which is provided for in Article 16 of Regulation (EU) 2017/460 for objectively even lower quality interruptible standard capacity products. Non-discrimination within the meaning of Article 7(c) of Regulation (EU) 2017/460 is thus also ensured. It would be hard to justify if, contrary to the above, network users were made to pay the same price for an inferior product as for a firm standard capacity product.

574 As capacity products which do not allow any access to the VTP are no longer permissible anyway according to operative part 1a) of Decision BK7-18-052 of 10 October 2019, full orientation of the tariffs for conditional capacity products on the reference price is appropriate without exception.

b) Customers' individual benefits and behaviours not decisive

575 The provision of operative part 3 is correctly based on objective criteria and not on the interests of individual network users.

576 It may be true that different network users pursue different interests and the subjective value of certain capacity products is not always identical for individual groups of users. However, these interests, which are varied and not always evident to the provider, cannot play a role in the pricing of the products.

577 As stated above, the basic principle is that capacity is marketed in open auction proceedings and is thus valued according to objective criteria. Objectively, products with a firm component are always more valuable than those with the possibility of a total loss. A particular customer's perception of value is not relevant because capacity is not tied to particular persons and can be traded again on the secondary market.

578 There were some comments that access to the VTP was irrelevant for DZK products, in particular, but these were not convincing. As explained, the owner of DZP has two forms of use in one product: interruptible access to the whole market area and a firm usage possibility for one or more specific combination(s) of points. The network user does not need to book one of two products at short notice depending on which usage form is ultimately needed, but can instead acquire a product containing both variants for the long term. In that regard, DZK is more valuable than a fully interruptible capacity product (uFZK).

579 In addition, as mentioned above, the probability of interruption is far lower for DZK than for uFZK due to the KASPAR determination. The pricing is thus appropriate and consistent with the access side if DZK is priced between the most valuable product, FZK, and the product that will be interrupted first, uFZK.

c) Proposal put forward in the consultation concerning the discount for firm, dynamically allocable capacity (DZK)

- 580 The alternative proposal regarding the pricing of DZK put forward in the consultation has not been included in the provision in operative part 3.
- 581 The basic premise upon which this proposal is based – that DZK is very largely used within the allocation restriction – has no foundation. Transmission system operators merely pointed to supplementary terms and conditions in which the firm allocation restrictions are described. Specific details about which DZK is used to what extent within the firm allocation restriction were not provided during the consultation. The ruling chamber thus analysed data on pipelines in which significant parts of the total marketed DZK exist. For the MEGAL pipeline, it was found that significant parts of the marketed DZK were used outside the allocation restriction (see section B.I.5.b)(4)(ii)). For the EUGAL pipeline, it was found that of the DZK marketed there, the commercial use (transport nominations) did largely occur within the allocation restriction. However, it is not enough merely to look at the commercial aspects. Technically, before the completion of the transport pipeline Nord Stream 2, it is only possible to fulfil these transport nominations because other infrastructure of the market area (including within it) contributes to the fulfilment of the transport (see also section B.I.5.b)(4)(ii)). Moreover, it can be seen that historically, there was successful (uninterrupted) use outside the firm allocation restriction of DZK products, eg at the entry and exit points of the OPAL.
- 582 Against the background of the overarching aims of the entry-exit systems, other market participants pointed out that DZK is a type of capacity that by definition should not be present in an entry-exit system. In the interests of liquid markets and competition, as little DZK as possible should be awarded overall. Moreover, the tariff system should not provide an incentive for the non-use of the interruptible access of the DZK products to the VTP, as was envisaged in the alternative proposal. The ruling chamber shares these views and has therefore decided not to grant further discounting of the DZK products. It was also correctly pointed out that there was a risk of market-side distortions if the flexible use of DZK booked on a yearly basis could occur, for example, on a daily basis to reach the VTP. The market would then be distorted in comparison to network users who were only able to achieve that kind of flexibility through short-term bookings of non-yearly products (eg within-day capacity) and thus had to pay higher tariffs owing to the multipliers (in this case of 1.4).
- 583 A further issue with the proposal is the decisive, systematic contradiction between it and the other regulatory provisions to the extent that a DZK product is given a higher discount than a uFZK one. First it is assumed that a transmission system operator offers FZK and DZK products at the same time and that these are completely booked up, so that an additional customer would only be able to book uFZK. The trading prices mean that the firm and interruptible entry capacities are fully

nominated (used). The DZK products are also used completely within the firm transport path because of the trading prices. In this example, all fictitious traders act identically as regards the source and target markets. In this situation, the last customer, who was only able to book uFZK products at the entry point, would be interrupted before the customers with firm FZK or DZK products. The network tariff that the customer with the uFZK would have to pay at the entry point according to the alternative proposal submitted would be more than the network tariff that the customers with DZK products would have to pay at the same point. The proposed DZK discounting would not just be inconsistent with the access-side arrangement of subsequent interruption, in this case it also seems to be discriminatory against all network customers.

584 Apart from the systematic considerations that argue against the proposal as such, the attempt to derive a higher discount also turns out to be inappropriate.

585 The question of under what conditions and at what price DZK should or will be converted to FZK in the course of the incremental capacity process (market-based process for the creation of additional gas transport capacity, Articles 22 to 31 of Regulation (EU) 2017/459) is not the subject of this decision. This kind of expansion would also fulfil the condition of an entry-exit system envisaged as the ideal in the European legal framework. According to recital 3 of Regulation (EU) 2017/460, following the introduction of the concept of the entry-exit system by Regulation (EC) 715/2009, transmission costs are no longer directly associated to one specific route as entry and exit capacities can be contracted separately, and network users can have gas transported from any entry point to any exit point. It is exactly this free allocability that is ensured by a corresponding expansion. Whether the expansion should happen or not is laid down in Regulation (EU) 2017/459. The incremental capacity rules also envisage that the party requesting the expansion bears its costs. Given these facts, it seems doubtful whether this process can be used to draw conclusions as to the exact level of pricing for DZK.

586 It was possible to estimate the approximate, hypothetical expansion costs for the DZK marketed on the EUGAL. However, it remained unclear how the discount for existing capacity, which is marketed as DZK unconnected to a new-build project, would be calculated. The proposal for greater discounting of the DZK products is based on the specific example of the EUGAL. It is supposed to justify a level of discount for all DZK products in the market. However, when this pipeline was built it was done so deliberately and at the explicit request of the transmission system operators involved in a way that initially only DZK products (of different allocation options) could be securely provided, in order to lower investment costs. This is not to say that other transport possibilities outside the allocation restriction would not be possible - in fact, it is the opposite. However, the basis for the justification of the discount level does not apply to the majority of the other DZK products offered on the market. The majority of the other DZK products were FZK products in previous, far smaller market areas. It was only because of the merger of market areas

and the consequent significant expansion of the entry-exit combinations that these FZK products had to be converted into DZK products in order to avoid additional network expansion. Incidentally, the same applies to the majority of bFZK products. It is therefore really doubtful whether the reasoning behind the blanket discount level can be justified.

587 The reference that the discount should be uniform, which seems to be an attempt to circumvent this problem of derivation, is not expedient. The argument that it equates to a transparent and simple network access is not convincing, because DZK can already be discounted individually depending on the entry or exit point under the status quo and, what is more, the maximum level of the discount is based on the tariff for uFZK and this tariff, in accordance with the MARGIT determination, was not determined in a completely uniform manner.

588 The attempt to take a market area-wide perspective to derive the discount is not convincing either. This approach for the derivation must be regarded critically. The DZK booked on the entry side is set at 117 GWh/h/a across the board despite a discrepancy in the booking values. DZK is not booked at a comparable level on the entry and exit sides. According to the figures used here, only 59 GWh/h/a is booked on the exit side. In a minimum comparison of the DZK actually booked on the exit side, this simplistic derivation would only explain about half of the expansion costs shown and would thus confirm the discount range determined. Moreover, this linear approach does not take account of any effects from major investments.

589 The market-side derivation was not able to support the network-side derivation in the course of the consultation. Rather, it turned out that a market-side derivation or validation of a DZK discount was ruled out. Individual advantages and disadvantages of product designs and prices of capacity products always depend on the specific trading portfolio. It is not possible to undertake an objectifiable derivation of a discount with such a market-side derivation in a determination. In fact, this consultation result rather supports the objective approach explored in sections B.III.1.a) and B.III.1.b).

590 In the light of the negative treatment, it is not necessary to assess the extension of the proposal put forward by some market participants with a view to national points, which are subject to the BEATE 2.0 determination.

d) No differentiation by product duration

591 The discounting for a network operator's specific conditional firm capacity product may not vary according to whether such a product is classified as a within-day, daily, monthly, quarterly or yearly standard capacity product. The level of discounting depends on the assessment of the respective condition; according to Article 4(2) of Regulation (EU) 2017/460 it is the conditions for firm capacity products that may be taken into account when setting tariffs. Objectively, however, the condition in the case of, for example, a daily standard capacity product should not be rated differently from

that in the case of, for example, a monthly standard capacity product. Consequently, a specific conditional firm capacity product always has an identical discount, regardless of the duration of the standard capacity product. The lower limit determined by the tariff for an interruptible capacity product is based on the lowest discount calculated for a standard capacity product at the relevant point in accordance with Article 16 of Regulation (EU) 2017/460. If this lowest discount were not taken, the consequence would be that a conditional firm capacity product with any duration could be granted a higher discount than the corresponding interruptible standard capacity product. This would obviously be inappropriate and would, from the outset, undermine the requirement already explained above that tariffs for conditional firm capacity products must not be lower than tariffs for the interruptible standard capacity product with the lowest discount at this point.

e) Application at storage facilities

592 The requirement set out in operative part 3 applies to capacity-based transmission tariffs at entry points from and exit points to storage facilities only under the condition that the discount determined according to operative part 2 is applied to the transmission tariff beforehand. It is true that, as a consequence of this, the tariff for a firm capacity product at a storage facility may be lower than the tariff for an interruptible capacity product at interconnection points. However, this is appropriate in the interest of the general contribution which storage facilities can make to security of supply and network flexibility, and ultimately also in the interest of cost-reflective pricing, as double charging for transmission to and from gas storage facilities is to be avoided. These aspects are expressly set out in recital 4 of Regulation (EU) 2017/460. For this reason, Article 9(1) of the Regulation stipulates that a discount of at least 50% shall be applied to capacity-based transmission tariffs at entry points from and exit points to storage facilities, 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 interconnection point.

Benchmarking in accordance with Article 6(4)(a) of Regulation (EU) 2017/460

593 In accordance with Article 6(4)(a) of Regulation (EU) 2017/460, benchmarking by the national regulatory authority can be carried out, whereby reference prices at a given entry or exit point are adjusted so that the resulting values meet the competitive level of reference prices.

594 This provision is based on the fact that in certain constellations there may be competition between transmission systems (for example where there are alternative transport routes across other countries). If a determined reference price methodology were applied, there would be no possibility that the transmission system operators concerned could respond to this competitive situation.

595 In the constellation described here, however, the starting point for benchmarking is not currently existing competition but the threat of competition in the form of the impending construction of a

direct pipeline. Given the particular network situation at the Burghausen network node in the region of the border with Austria, while it is true that entry and exit points there are formally integrated into the German market area they do not have unrestricted access to the virtual trading point. The tariffication applicable prior to the entry into force of Regulation (EU) 2017/460 provided for heavily discounted tariffs for so-called short-distance products/BZK with bayernets GmbH, which merely enabled access to the Austrian market area.

a) Affected entry and exit points and connection situation

596 Those affected by this particular network situation are Wacker Chemie AG as the end user, connection owner and connection user and astora GmbH & Co. KG and GSA LLC as storage facility operators. These are also referred to here as petitioners. Wacker Chemie AG operates not only a chemical plant at the Burghausen site but also a gas-fired power plant classified as systemically relevant according to section 13f(2) EnWG, which supplies process energy (steam and electricity) to the Burghausen site. In this context the ruling chamber refers solely to the connection owner and connection user Wacker Chemie AG as the petitioner. The fact that other end users beyond the connection point are also affected by agreements is relevant only to the corresponding internal relationship.

597 Both astora GmbH & Co. KG and GSA LLC market the Haidach storage facility, which is located on Austrian territory and is connected to the German market area via the bayernets GmbH and Open Grid Europe GmbH networks. For the most part, however, the storage facility is filled/emptied from/to Austria. The relevant network segments are only 1,300 metres (cross-border interconnection point Überackern 2 to storage connection point Haidach) and 900 metres (storage connection point Haidach to end user Wacker Chemie AG) long respectively.

598 The earlier form of tariffication provided for discounts amounting to approximately 98% off the reference price and in the case of the storage points the application of storage discounts in addition. With the application of a reference price methodology, despite discounting of these conditional firm capacity products within the context of the principles set out in section B.III.1 there would be huge tariff increases at the relevant points (by up to a factor of 50).

599 Against the background of these tariff increases, the petitioners considered connecting directly to the Austrian transmission network because this alternative would prove more economical than paying the tariffs with bayernets GmbH which would then have only a very small discount. However, this would not only give rise to a macroeconomically and operationally inefficient parallel infrastructure but also lead to loss of the bookings – even if they are heavily discounted – in the German market area with a cost pool that stays the same. In order to prevent this, the ruling chamber is carrying out benchmarking in accordance with Article 6(4)(a) of Regulation (EU) 2017/460. This is being done with regard to bayernets GmbH, because this company is

threatened by the loss of the previous capacity bookings. The fact that the Haidach storage facility is also connected to the Open Grid Europe GmbH network is thus not relevant to benchmarking. An existing or additional connection to the German market area with access to the VTP is not relevant either, because when considering the impending construction of a direct pipeline the concern is access solely to the Austrian market area, in other words an entirely different matter. Any comparison with the 7Fields storage facility does not bear scrutiny either, because this facility is already connected to both market areas. The connection line required for this is already priced into the corresponding tariffs in the case of 7Fields, such that the reduced tariff for the Haidach storage facility identified here results in the storage facilities being on an equal footing in economic terms.

b) Potential construction of a direct pipeline and cost calculations

- 600 This is an exceptional circumstance that must be tied to strict criteria. In no way is it permissible for exceptions to cancel out the entire cost-reflective tariff system, especially as every discount that is granted leads to an increase in the reference price to the detriment of the other network users. However, this additional burden would be even higher if the bookings were to be lost entirely because of the construction of a direct pipeline as this would be linked to a cost reduction at bayernets GmbH. In effect, therefore, the other network users are not placed at a disadvantage.
- 601 The ruling chamber came to the conclusion the construction of a direct pipeline for connection to the Austrian market area is indeed a threat for the petitioners. In arriving at this conclusion the ruling chamber arranged to be given relevant project plans with cost estimates and carried out investment calculations on the basis of the annuity method. It was necessary to re-examine the situation in the light of the new decision pursuant to Articles 26 and 27 of Regulation (EU) 2017/460, particularly because the market area merger has significantly changed the overall situation in the gas market. Recalculations can only be ruled out by the implementation of the potential direct pipeline.
- 602 The result was that the construction of a direct pipeline proves to be more economic for the petitioners than paying what will now be less heavily discounted network tariffs. In this context it was assumed, for the petitioner Wacker Chemie AG, that of several alternative project plans submitted there would be a direct connection to the cross-border interconnection point Überackern 2 and the Haidach storage facility. This is the project alternative with the highest estimated investment costs. The ruling chamber is convinced that in this case connecting only to the Haidach storage connection point must be ruled out because this alternative would depend on other factors (including the availability of capacity in the storage facility itself). A project consortium for implementing a joint pipeline from the storage connection point to the cross-border interconnection point is not a sufficiently explained threatening scenario either. It is by no means sufficient in this

case that a petitioner offers a one-sided explanation of the usefulness of such a consortium. If the estimate of investment costs is too low, the ruling chamber reserves the right to initiate misuse proceedings.

603 The cost estimates presented in the course of the consultation did not lead to any objections. For the petitioner Wacker Chemie AG, the costs were taken into account that were necessary for both a connection to the Haidach storage facility (to the gas pressure reduction and metering station there) and to the cross-border interconnection point Überackern 2. As in the preceding decision, increased costs for easements were used for the petitioner Wacker Chemie AG. As compulsory expropriation of the landowners concerned is ruled out because of the existing supply situation, correspondingly higher costs for easements are to be expected. This cost item was therefore set with a factor of 5 as a blanket figure, which is equivalent to the full market value of the parcels of land.

604 For the petitioners at the Haidach storage facility, from among the several alternative project plans submitted the assumption was not that a direct pipeline would be constructed but instead a transfer station close to the border at the Überackern 2 point. In this case there would be a direct connection to the Austrian network. This, too, is the project alternative with the highest estimated investment costs. The background to this is the fact that constructing a station at the cross-border interconnection point appears to be more realistic than building a parallel pipeline which would have to cross the Salzach River that forms the border. Furthermore, as mentioned above, the procurement of easements to construct a pipeline is problematic (even if it is not ruled out).

605 On the basis of the thus determined project costs, the ruling chamber calculated a capital cost annuity and estimated annual operating costs amounting to 2% of the investment costs. A blended rate of 4.27% and a term of four years were used in the calculations. Determination of the annual operating costs and the blended rate follows the principles set out in the regulatory authorities' guide to determining special tariffs in accordance with section 20(2) GasNEV (charges for the avoidance of direct pipeline construction). These principles can be applied to the present case because the provision set out under section 20(2) GasNEV and the benchmarking carried out in this case provide for a reduction in the network tariff to avoid the impending construction of a direct pipeline. The fact that this relates to distribution network segments in the case of section 20(2) GasNEV and transmission system operators in the present case does not make any difference to the way the impending construction of a direct pipeline is viewed. Deviations from this imputed view are only possible if the construction of a direct pipeline actually takes place.

606 With regard to the term of the annuity, in the case of the tariffs identified in the operative part a term of four years was estimated in line with the regulatory authorities' guide to determining special tariffs in accordance with section 20(2) GasNEV. With regard to the assumed capacities, the typical booking level was used for the end user Wacker Chemie AG and only the existing long-

term contracts for the Haidach storage facility. Using only the fixed long-term bookings leads to a higher indicative tariff. Since the details of the stated capacity bookings are confidential industrial and business information from the petitioners, more detailed information on the calculations cannot be provided.

607 The tariff derived from operative part 3(b) is always to be used for the relevant restricted products at the Überackern 2 and underground storage facility Haidach points. As a result, however, transport to the end user Wacker Chemie AG's network connection point is to be charged with a corresponding increase in the tariff for the exit capacity in such a way that there is economic equivalence with the hypothetical construction of a direct pipeline and the associated annuity.

608 The tariffs determined on the basis of this imputed duration of use of four years are not subject to any further conditions. However, if evidence is provided to the ruling chamber that a longer imputed duration of use is appropriate, further reduced tariffs can be determined accordingly. In order to eliminate the risk that corresponding bookings are not made and bayernets GmbH does not receive the assumed amount of coverage, in this case the respective petitioner or petitioners must however commit to meeting the difference between the actual revenues and the estimated total annual costs for the entire period of the assumed duration of use. If there is a shortfall over the assumed imputed term of more than four years, the ruling chamber will always view this as recoverable revenue within the context of the examination of the regulatory account in accordance with section 5 ARegV. The network operator should therefore take or demand all economically reasonable measures to ensure contract fulfilment on the part of the petitioner or petitioners by means of a corresponding security.

609 It is not possible to present a counter-argument to these provisions that for example storage facility operation is long term anyway and there is no need for any such corresponding obligation, because if storage facility operation is indeed long term and corresponding bookings are made, the obligation in effect does not constitute a burden to the petitioner.

610 The relevant agreement must be submitted to the ruling chamber. This enables it to examine whether an extended duration of use was appropriately applied in accordance with the provisions on benchmarking and the preconditions required for this were met.

611 The reduced tariff must be recalculated at the start of each regulatory period and every time a decision is made pursuant to Articles 26 and 27 of Regulation (EU) 2017/460. If the outcome is a lower or higher tariff, in particular because of changes to interest rates, this new tariff is absolutely authoritative. If there is an initial assumption of an imputed duration of use of more than four years, the nature of the petitioner's associated payment obligation must be made accordingly dynamic. The recalculation may result in a lowering or raising of the tariffs. These opportunities and risks can only be avoided if a direct pipeline is actually constructed (although in this case, too, changes to the costs may arise in the event of refinancing). The recalculation must be submitted to the

Bundesnetzagentur. The same applies to cases where a recalculation is carried out because of an adjusted duration of use or adjusted project costs, for example.

c) Structure of the benchmarking

- 612 Tariffs reduced because of benchmarking are valid only with a combination of the entry and exit points identified in the operative part. In contrast to the version consulted on, it has been permitted for the petitioner Wacker Chemie AG to be supplied via the Haidach storage facility at benchmarking tariffs as well as via the cross-border interconnection point Überackern 2, since according to the submission to the consultation a direct line would reflect precisely this connection situation. It is thus ensured that the relevant gas volumes are either put into storage at the benchmarking tariff or by means of undiscounted capacity, similar to the tariff for a border crossing to Austria.
- 613 Reduced access to the rest of the market area, even on an interruptible basis, must be ruled out because such access would not be possible via the hypothetical direct pipeline. It is true that the KASPAR decision (BK7-18/052) from Ruling Chamber 7 sets out that there should in future be no capacity products without at least interruptible access to the VTP, so the capacity cannot be limited in this way from the start. However, this may be satisfied by marketing the corresponding capacity initially with the respective usage possibility and thus without a tariff reduction. If the party acquiring the capacity then voluntarily does without access to the rest of the market area, part of the tariff payable can be waived in accordance with this decision. The declaration of foregoing access applies to the whole capacity product (duration and volume); it is not permitted to "structure" this arrangement by pricing just a few usage possibilities for the access to the rest of the market area with the full postage stamp tariff. In this particular exception, the ruling chamber regards it as permissible that with this kind of declaration, the benchmarking tariff is charged and only if there was a breach within the duration of the capacity (ie up to a maximum of a year for yearly products) should the full tariff be imposed subsequently and charged for the remainder of the duration.
- 614 In the event of concerns about a breach on the part of the parties involved, this cannot lead to access to the VTP with the benchmarking tariff being granted for reasons of tolerance. This applies in particular to services from the gas balancing system. If forecasting risks lead to differences between the gas volumes entering and exiting the system in the supply of, for example, the end user, this must be classed as a use of the VTP and consequently as a breach of the declaration, because an actual direct line would also have no access to the German market area or access to the German balancing system. As the consultation response of bayernets GmbH points out, this risk can be avoided by smaller-scale bookings. The ruling chamber views this as reasonable in the light of the special arrangement benefiting the petitioners, just as, for example, the bookings of products that partially have the benchmarking tariff and products that are priced with the postage

stamp tariff. This arrangement further removes the concern that services of the market area would in fact be used with the benchmarking tariff.

615 Furthermore, it is stipulated for gas volumes put into storage that they cannot be switched to another market area at a lower tariff in an inappropriate manner. There is thus equal treatment with other storage facilities that are connected to more than one market area. If gas is put into storage using tariffs reduced in accordance with the benchmarking, these gas volumes are categorised as coming from the Austrian market area regardless of the actual flow situation.

616 As a general rule, within-year bookings are also permissible if corresponding multipliers are used. With regard to the Haidach storage facility, however, further discounts in accordance with Article 9(1) of Regulation (EU) 2017/460 cannot be applied in addition because calculation of the reserve price for the booking has already been carried out. An additional storage facility discount would lead to a systematic failure to meet the calculated costs to the detriment of the other network users.

d) Additional considerations

617 The provisions do not create any incentives to make investments in gas-withdrawing infrastructure in areas close to the border, because there is no reduced-price access to the VTP. Any petitioners are simply put into the same position economically as they would be if they were directly connected to another market area.

618 The principles and calculations described here relate to a clearly definable special case which also has a European relevance on account of the cross-border circumstance. Otherwise there is no change to the application of the reference price methodology to all entry and exit points in accordance with Article 6(4) of Regulation (EU) 2017/460. Insofar as the fundamental provisions pursuant to B.III.1 are relevant to other conditional firm capacity products, this is appropriate. This derives in particular from the accessibility of the VTP and the fact that there can be no direct pipelines on a larger scale (for instance to link interconnection points). These configurations would instead have to be classified as transmission system operators.

619 Nor is the ruling chamber required to determine an abstract, generally applicable mechanism that allows a response to competitive situations in addition to the uniform postage stamp reference price methodology. This mechanism has already been set out in Article 6(4)(a) of Regulation (EU) 2017/460, as explained, and in accordance with the wording of the Regulation can only be applied in a specific individual case on the basis of a decision by the national regulatory authority. No other specific demonstrable competitive situations are known to the ruling chamber.

IV. Adjustments concerning the application of the reference price methodology to all entry and exit points in accordance with Article 6(4)(c) of Regulation (EU) 2017/460 (operative part 4)

- 620 The directives in operative part 4 are issued on the basis of section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 6(4)(c) of Regulation (EU) 2017/460.
- 621 Rescaling in accordance with Article 6(4)(c) of Regulation (EU) 2017/460 is necessary because only forecasted average contracted non-adjusted capacities are used in the reference price methodology calculations, with no account being taken for example of adjustments in accordance with Article 9(1) of Regulation (EU) 2017/460 at entry and exit points from/to storage facilities, multipliers in accordance with Articles 13 and 14 of Regulation (EU) 2017/460 or discounts in accordance with Article 16 of Regulation (EU) 2017/460 for weighting the capacities.
- 622 Determination BK9-17/609 dated 19 July 2017 already included the decision that individual transmission system operators should undertake rescaling in accordance with Article 6(4)(c) of Regulation (EU) 2017/460 at all entry and exit points with the aim of being able to collect the transmission services revenue in actual fact (competence for rescaling). Operative part 4 of this determination provides that the change to the reference prices at all points should be made by means of multiplication with a constant. In contrast to the addition or subtraction of a constant, multiplication with a constant has the advantage that the higher or lower revenues resulting from the unadjusted reference price are added or deducted in a non-discriminatory manner at all entry and exit points thereby maintaining the difference between discounted entry and exit points (for example at storage facilities and at entry and exit points where conditions for firm capacity products apply) and non-discounted entry and exit points.
- 623 Since tariffs are set annually, the adjustment factor must also be reset annually by the transmission system operators and shown transparently within the framework of the information to be published in accordance with Article 30 of Regulation (EU) 2017/460. See the explanations in section B.I.3 for the details arising from the amendment of the MARGIT 2021 determination for the fourth quarter of 2021.

V. Transmission services and non-transmission services according to Article 26(1)(c)(ii) of Regulation (EU) 2017/460 (operative parts 5 to 8)

- 624 According to Article 4 of Regulation (EU) 2017/460, tariffs must be charged for transmission services and for non-transmission services. Pursuant to Article 3 point 12 of Regulation (EU) 2017/460, transmission services are the regulated services that are provided by the transmission system operator within the entry-exit system for the purpose of transmission. Pursuant to Article 3 point 15, non-transmission services are the regulated services other than transmission services

and other than services regulated by Regulation (EU) 312/2014 that are provided by the transmission system operator. Pursuant to Article 4(1) of Regulation (EU) 2017/460 a given service is considered a transmission service if the costs of such service are caused by the cost drivers of both technical or forecasted contracted capacity and distance and the costs of such service are related to the investment in and operation of the infrastructure which is part of the regulated asset base for the provision of transmission services. Cost drivers according to Article 3 point 18 of Regulation (EU) 2017/460 are key determinants of the transmission system operator's activity which is correlated to the costs of that transmission system operator. Should one of these two criteria not be met, a specific service can be deemed either a transmission service or a non-transmission service. In this context, the term "non-transmission service" [in the German version of the Regulation *Systemdienstleistung* = system service] is not identical to system service within the meaning of the German Gas Network Charges Ordinance (GasNEV) but is defined in effectively negative terms by differentiating it from the term "transmission service" (see also the wording of the English version of Regulation (EU) 2017/460: "non-transmission service"), and thus covers a broader scope of application. According to Article 4(4) of Regulation (EU) 2017/460, the tariffs for non-transmission services must be cost-reflective, non-discriminatory, objective and transparent and must be charged to the beneficiaries of a given non-transmission service with the aim of minimising cross-subsidisation between network users within and/or outside the Federal Republic of Germany. If, in the opinion of the Bundesnetzagentur, all network users are the beneficiaries of a specific non-transmission service, the costs of this service must be borne by all network users.

1. Market area conversion charge (operative part 5)

625 The directives set out in operative part 5 are based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 27(4) sentence 1, Article 26(1)(c)(ii), Article 4(1) and (4) of Regulation (EU) 2017/460.

626 Against the background of Regulation (EU) 2017/460, the assumption of conversion costs as such by certain network operators and ultimately by the network users requires no particular explanation. In section 19a(1) sentence 1 EnWG, the German legislator made it mandatory for network operators to carry out any necessary technical adjustments of connection points, customer facilities and consumer appliances. By itself, this provision is not directly related to the setting of tariffs and is therefore beyond the scope of Regulation (EU) 2017/460. Furthermore, in section 19a(1) sentence 3 EnWG, the legislator stipulates that these costs must be spread nationally, which logically can only be achieved via the transmission system operators across the entire system, so the assumption of all costs incurred at distribution network level by the transmission system operators is already laid down. This, too, initially affects only the cost side, not the tariffs governed by Regulation (EU) 2017/460. However, conversion of the given costs into

tariffs needs to be discussed and measured against the yardsticks set in Regulation (EU) 2017/460.

627 According to Article 4(1) sentence 2 of Regulation (EU) 2017/460, the market area conversion charge is classified as a non-transmission service. Within the meaning of Article 4(1) sentence 1(a) of Regulation (EU) 2017/460, the conversion costs are not based on the cost drivers of capacity and distance and only to a minor extent are related to investment in infrastructure which is part of the regulated asset base for the provision of transmission services within the meaning of Article 4(1) sentence 1(b) of Regulation (EU) 2017/460. The key cost driver is in fact connected customers' consumer appliances requiring conversion. Firstly, costs arise here for the adjustment of the appliances themselves, ie usually involving the exchange of a nozzle. Secondly, significant personnel and organisational costs arise because information campaigns are required to prepare the population of the affected areas for the conversion, and technical staff have to be sent out to visit every single household within a conversion area to register existing appliances, make the necessary changes and finally check safety and quality, all within a narrow time frame. Most consumer appliances are located in the network areas of downstream distribution system operators, who carry out the conversion work, and the relevant costs are therefore allocated solely via the balancing mechanism within the transmission system operators' exit tariffs. The transmission system operators themselves are obliged only to carry out conversions at certain industrial customers with a direct connection to the transmission system; in this case too, however, this does not affect their own asset base but that of the connected customers. The regulated asset base of transmission system operators is affected only to the extent where technical adjustments need to be made to the transmission system, for example if the conversion changes the direction of flow without the system having been prepared beforehand, or if downstream network operators currently undergoing conversion need to be supplied partly with L-gas and partly with H-gas and an additional connection line has to be installed for that purpose. However, such costs constitute only a small proportion of the total conversion costs. The redistribution levy added to the tariff is merely an abstract value within which the costs for all transmission system operators are accounted for on a pro-rata basis.

628 The details of the allocation mechanism must be determined by agreement between the transmission system operators and the affected distribution network operators. At the time of the adoption of this decision, this is set out in the relevant provisions made in the Cooperation Agreement between the Operators of Gas Supply Networks in Germany (KOV) (version dated 30 September 2019) which, in the opinion of the ruling chamber, meets the requirements of both this decision and of those set out in Article 4(4) of Regulation (EU) 2017/460.

629 In accordance with Article 4(4) sentence 3 of Regulation (EU) 2017/460 the market area conversion costs are recovered from all network users at exit points with the exception of

interconnection points and storage points because all network users benefit from this service. All affected customers benefit from the system conversion and the associated increased liquidity in the German market area. This applies irrespective of the possibility of converting L-gas to H-gas free of charge, which already exists, in accordance with Decision BK7-11-002 dated 27 March 2012 (Konni Gas), as this economic and/or balancing option cannot be considered separately from its technical and physical prerequisites and only the conversion of the networks ensures that gas can continue to be traded on a permanent basis across the entire market area. In the opinion of the ruling chamber, transit customers, in contrast, do not benefit from the market area conversion, or at least only to a negligible degree. Essentially the conversion does not relate to the networks themselves but to German final customers' consumer appliances connected to those networks, customers who are not supplied by transit customers anyway. Furthermore, the interconnection points in the former L-gas networks are typically used only for imports, whereas the offtake to neighbouring countries' market areas previously affected by the market area conversion charge generally takes place exclusively in H-gas networks, which do not require conversion. Even after the conversion, in light of the geographical and network-related operational circumstances the transit of H-gas through Germany will continue to take place through historical H-gas networks and not through former L-gas networks. Cross-subsidisation of domestic customers through cross-border trade via the market area conversion charge is ruled out with this arrangement. In addition, the ruling chamber has decided to exempt the storage points from the charge. Otherwise gas that is first put into storage and then later withdrawn to end users would in effect be subject to the charge twice. Moreover, storage facilities are also used by transit customers, so they would indirectly be drawn in to financing the gas conversion.

630 Higher or lower revenues from the allocation mechanism are balanced by means of special mechanisms. An annual comparison between forecasted and actual values is carried out for each transmission system operator for differences arising from divergences in the incurred costs and the respective difference is taken into account in the charge in the next year but one in each case. Differences arising from divergences in the booked capacities are likewise balanced via a comparison of forecasted and actual values in which every year each transmission system operator calculates the differences between forecasted and booked capacities and the resulting higher and lower revenues from the charge so that they can be balanced within the framework of the charge itself and not via the regulatory account in interaction with higher and lower revenues from transmission services. The interest is calculated in accordance with section 5(2) ARegV. Thirdly, compensation payments will be made between the transmission system operators in the market area 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.

631 The transmission system operators did not provide any information about the expected level of the market area conversion costs within the framework of the survey to collect data. The ruling chamber therefore took the conversion costs reported for 2020 amounting to €179,168,392.21 as a basis and extrapolated them to the appliances to be converted in 2021. According to the transmission system operators' implementation report on the Gas Network Development Plan 2018–2028, the conversion of 395,800 appliances burning gaseous fuels is planned for 2020 and the conversion of 542,000 appliances burning gaseous fuels is planned for 2021. On the generalised assumption that the relation between conversion costs and the number of appliances will remain the same, the expected volume of costs for 2021 is €245,349,339.52. On this basis and on the basis of the capacity forecasts submitted by the transmission system operators, the ruling chamber calculated the indicative tariff for the market area conversion charge which, like its share in the allowed total revenues in the market area, is obtained from Annex 1.

2. Biogas charge (operative part 6)

632 The directives set out in operative part 6 are based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 27(4) sentence 1, Article 26(1)(c)(ii), Article 4(1) and (4) of Regulation (EU) 2017/460.

633 In the case of biogas, too, the German regulator's fundamental decision to impose certain costs on network operators in accordance with section 20a GasNEV and sections 33 ff GasNZV and to process these by spreading them nationally in accordance with section 20b GasNEV is beyond the scope of Regulation (EU) 2017/460 with regard to the costs to be borne by the transmission system operators. Again, the conversion of these transmission costs into specific tariffs must be explained.

634 Pursuant to Article 4(1) sentence 2 of Regulation (EU) 2017/460, the biogas charge is classified as a non-transmission service. Within the meaning of Article 4(1) sentence 1(a) of Regulation (EU) 2017/460, the biogas costs are not based on the cost drivers of capacity and distance and only to a minor extent are related to investment in infrastructure which is part of the regulated asset base for the provision of transmission services within the meaning of Article 4(1) sentence 1(b) of Regulation (EU) 2017/460. Instead, the key cost drivers are the biogas facilities connected to the network. In accordance with section 33(1) GasNZV, the 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, in accordance with section 33(2) GasNZV the network operator is responsible for maintenance and operation of the network connection and the input facility. These are not investments but operational costs, even though they are clearly related to the input facility belonging to the

regulated asset base. In accordance with section 34(2) sentences 3 and 4 and section 33(10) GasNZV, the network operator must take all economically reasonable measures to ensure biogas input throughout the year and if necessary must increase the capacity of the network accordingly or even build facilities for gas recompression or deodorisation for the purpose of feeding it back into upstream networks. These measures are investments and can add considerably to the regulated asset base. Section 35 GasNZV obliges the market area managers to set up extended balancing for biogas input and output. This gives rise to operational costs only, which furthermore initially do not affect the network operators but their designated market area managers; however, the costs are nevertheless distributed via the biogas charge. In accordance with section 36(3) and (4) GasNZV the network operators are responsible for certain aspects of chemical processing of biogas prior to injection into the network and for odourisation and metering, at their own expense. Partly these costs are related to investment in the regulated asset base because the input facility to be built has to satisfy the technical prerequisites required to fulfil these tasks; the remaining costs are ongoing operational costs. In the final analysis, in accordance with section 20 GasNEV the network operator pays the shipper who directly inputs biogas into the system a tariff of €0.007 per kilowatt hour for a period of ten years from the commissioning of the respective network connection. This provision was introduced by the regulator because in the case of decentralised input of biogas the networks upstream of the input point are not used and thus network tariffs are avoided. These avoided network tariffs are reimbursed to the shipper by the network operator into whose network the biogas is fed at a flat rate of €0.007 per kWh. This applies irrespective of the network level into which the biogas is input, ie also at the transmission system level. The stated costs are obviously not linked to the regulated asset base. They are also not directly linked to capacity, because they are based only on the volume of injected gas. In summary it can be stated that some elements (as a rule those that are particularly important) of the biogas charge are connected to investments in the regulated asset base. However, as in the case of market area conversion, these costs are very largely those of distribution network operators, and are therefore not the regulated asset base of transmission system operators. Only a very small proportion of biogas facilities is directly connected to the transmission system. Accordingly, the biogas charge reflects only a very small proportion of costs resulting from investments in the asset base of transmission system operators. Moreover, it is also the case here that the redistribution levy to be collected from each transmission service operator is calculated on the basis of an overall analysis of all biogas costs borne by the transmission systems and is only indirectly linked to the transmission system operator's individual costs.

635 The details of the allocation mechanism must be determined by agreement between the transmission system operators and the affected distribution network operators. At the time of the adoption of this decision, this is set out in the relevant provisions made in the Cooperation Agreement between the Operators of Gas Supply Networks in Germany (KOV) (version dated

30 September 2019) which, in the opinion of the ruling chamber, meets the requirements of both this decision and of those set out in Article 4(4) of Regulation (EU) 2017/460.

636 In accordance with Article 4(4) sentence 3 of Regulation (EU) 2017/460 the costs of biogas input incurred by the transmission system operators are recovered from all network users because all network users benefit from this service. All customers benefit from the decentralised input of biogas and the associated increased liquidity in their respective market area. However, interconnection points are excluded from this. As promoting biogas input not only increases liquidity in the networks but in consequence also acts as an economic support mechanism for biogas production in Germany, whereas companies with production facilities outside Germany are unable to benefit from it, in order to avoid any discriminatory effects it appears appropriate to charge the relevant costs exclusively to exit points within Germany. Exit points to storage facilities are also excluded. Storage facilities already contribute to the decentralisation of natural gas supply and should therefore not bear additional costs.

637 Higher or lower revenues from the allocation mechanism are balanced by means of special mechanisms. An annual comparison between forecasted and actual values is carried out for each transmission system operator for differences arising from divergences in the incurred costs and the respective difference is taken into account in the charge in the next year but one in each case. Differences arising from divergences in the booked capacities are likewise balanced via a comparison of forecasted and actual values in which every year each transmission system operator calculates the differences between forecasted and booked capacities and the resulting higher and lower revenues from the charge so that they can be balanced within the framework of the charge itself and not via the regulatory account in interaction with higher and lower revenues from transmission services. The interest is calculated in accordance with section 5(2) ARegV. Thirdly, compensation payments will be made between the transmission system operators in the market area in order to prevent individual transmission system operators from obtaining higher or lower revenues from the charge than correspond to the biogas costs specifically arising in their network area.

638 The transmission system operators did not provide any information about the expected level of the biogas costs within the framework of the survey to collect data. The ruling chamber therefore took the costs reported for 2020 amounting to €196,503,617.96 as a basis. Comparisons with figures from the preceding years show that these costs currently fluctuate only slightly and no general cost-reducing or cost-raising trend is discernible in their development, so the volume of costs can probably be considered to be representative for the near future too. On this basis and on the basis of the capacity forecasts submitted by the transmission system operators, the ruling chamber calculated the indicative tariff for the biogas charge which, like its share in the allowed total revenues in the market area, is obtained from Annex 1.

3. Meter operation including metering (operative part 7)

639 The directives set out in operative part 7 are based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 27(4) sentence 1, Article 26(1)(c)(ii), Article 4(1) of Regulation (EU) 2017/460.

640 Pursuant to Article 4(1) sentence 2 of Regulation (EU) 2017/460, meter operation including metering is classified as a non-transmission service at exit points to end users and to downstream distribution networks but as a transmission service at all other points. The costs of meter operation are not caused by the cost driver of distance, but at least in part by the cost driver of capacity within the meaning of Article 4(1) sentence 1(a) of Regulation (EU) 2017/460. As a rule, the larger the exit capacity at a specific point in the network, the more capable and therefore more cost-intensive the existing infrastructure for metering must be, even if as far as the ruling chamber is aware this correlation is not always inevitable, at least on the cost side. Furthermore, normally these costs are linked to investments in infrastructure, namely the above-mentioned metering infrastructure, which is part of the regulated asset base within the meaning of Article 4(1) sentence 1(b) of Regulation (EU) 2017/460. However, this correlation, too, does not always apply, since some transmission system operators merely run their metering stations operationally without obtaining ownership of them. Moreover, the costs of metering associated with meter operation, which account for a quite considerable proportion of metering station operating costs for many transmission system operators, are neither attributable to the cost drivers of capacity and distance nor are they linked to investment in infrastructure. Since the criteria of Article 4(1) sentence 1 of Regulation (EU) 2017/460 are thus not clearly met, according to Article 4(1) sentence 2 of Regulation (EU) 2017/460 classification is incumbent upon the ruling chamber.

a) Meter operation at exit points to end users

641 With regard to exit points to end users, classification as a non-transmission service makes sense because these are not purely internal network control measures but operations that are caused by individual clearly definable consumers or by the network customers supplying gas to those consumers. The costs incurred as a result should therefore also be allocated to those customers. Furthermore, designating separate tariffs for meter operation leads to transparency and facilitates comparability with other providers of the same service, such that the connected end user is able to take a well-founded decision on whether to have meter operation carried out by the network operator or to commission a different meter operator in accordance with section 5(1) of the Metering Act (MsbG).

642 The transmission system operators must determine the relevant cost drivers for meter operation at end users in their respective system and allocate them appropriately to the individual exit points. In this context, in addition to the meter operation tariffs, separate tariffs for metering according to

a separate methodology can be determined and designated if such differentiation is appropriate according to the cost structures and the design of the services provided. The meter operation tariffs (and if applicable metering tariffs) must satisfy the criteria set out in Article 4(4) sentence 2 of Regulation (EU) 2017/460. Otherwise the ruling chamber leaves the decision on the design of the tariff methodology to be used to the individual transmission system operators. It does this firstly against the background that the evolved structures in metering and the methods of tariff setting used to date that have emerged on that basis differ very widely in some cases and attempts at standardisation by the ruling chamber have proved to be difficult and frequently not expedient. Secondly, demand for regulatory intervention in meter operation is less apparent than in other areas. Since the MsbG entered into force, network operators no longer have a natural monopoly in meter operation but are in a competitive relationship with other independent meter operators. This is intended to ensure the formation of appropriate prices by means of market mechanisms, which is why restraint is advisable for regulatory intervention by the state. Market disruption is threatened if at all by cross-subsidisation of meter operation from other regulated business areas, although this is not a question of tariff methodology but of cost allocation, which is subject to supervision by the Bundesnetzagentur anyway. In the course of data collection in preparation for this decision, all transmission system operators who operate metering stations at connection points to end users explained the methodologies they currently use to form the relevant tariffs to the ruling chamber. In this process the ruling chamber did not become aware of any arrangements that in its estimation are not cost-reflective, non-discriminatory, objective and transparent or lead to cross-subsidisation between network users.

643 Higher or lower revenues that can arise when the number of connection users for whom meter operation is carried out by the network operator change in the course of time are balanced using a separate regulatory account. This is necessary in order to prevent the transmission tariffs being influenced by differences relating to meter operation. Meter operation is used only by a clearly definable group within the totality of network customers; this group alone has to cover the costs of meter operation, which is why positive and negative effects from any differences arising from this must be allocated among this group. A separate regulatory account is not inconsistent with Article 19(4) of Regulation (EU) 2017/460. Although according to this each transmission system operator is to use only one regulatory account, this provision – as does Chapter IV of Regulation (EU) 2017/460 as a whole – relates solely to transmission services revenue that is to be reconciled using such an account. Article 17(3) of Regulation (EU) 2017/460 thus establishes that these requirements may be applied *mutatis mutandis* to non-transmission services revenue. There are no further provisions on how this is to happen in detail or on what the relationship should be between the reconciliation of non-transmission services revenue and the reconciliation of transmission services revenue in this case. Since as a matter of principle it is not mandatory to use the regulatory account for non-transmission services and alternative compensation

mechanisms are also permitted, setting up a separate regulatory account that operates in an identical manner cannot be impermissible. Moreover, only this arrangement satisfies the provisions of Article 4(4) sentence 2(a) and Article 7 sentence 2(c) of Regulation (EU) 2017/460, according to which both the reference price relevant for transmission services and the non-transmission tariffs must be set without cross-subsidisation, including mutual cross-subsidisation. The provisions of section 5 ARegV on running and auditing the regulatory account are applied equally to both accounts without change; it is only with respect to the distribution of the balances in accordance with section 5(3) sentence 2 ARegV that in addition to the raising or lowering of the (still uniform) revenue cap there will in future be a differentiation according to amounts that need to be taken into account when forming transmission tariffs and when forming meter operation tariffs.

- 644 Notwithstanding the above, for a transitional period processing will still be carried out using the previous regulatory account together with reconciliation of the differences from transmission services. As far as the ruling chamber is aware, the delineation between the costs for meter operation or metering and other costs has hitherto varied greatly between the individual transmission system operators and was not necessarily carried out in line with the principles set out in this decision. In order to keep the system changeover free of resultant effects, the separation of metering station operating costs and transmission costs in the regulatory account will not take place until they have been differentiated according to uniform, clear rules, but will not be carried out for differences still to be reconciled that have already accrued on the regulatory account at the time when this decision enters into force. Separate distribution will therefore be taken into account for the first time in the tariffs for the calendar year 2022, which will incorporate the values from the calendar year 2020 determined in the calendar year 2021.
- 645 The indicative meter operation tariffs for the individual exit points to end users notified to the ruling chamber by the transmission system operators and their share of the allowed total revenue for each transmission system operator are apparent from Annexes 1 and 4.

b) Meter operation at exit points to downstream network operators

- 646 In addition, the ruling chamber has decided that meter operation at exit points to downstream distribution networks should also be classed as a non-transmission service insofar as it is not carried out by the distribution system operator but by the transmission system operator. Otherwise there would be unequal treatment of end customers who are directly connected to the transmission network compared with those supplied via the distribution network. The former would then not only finance meter operation that relates to themselves but also meter operation that is carried out exclusively for the customers in a specific distribution network. In contrast with the exit points to individual end users, however, in this case the MsbG is not applied, so the transmission system

operator is not in competition with competing metering service providers. The precise design of the tariff system cannot therefore be handed over to the transmission system operators themselves in this case, simply relying on market mechanisms. The ruling chamber is thus ruling that the costs of a metering station at the interconnection point to a distribution network are to be borne by the respective distribution network operator. This provision allocates the costs directly to the corresponding originator of the costs, and furthermore is non-discriminatory and thanks to its simplicity is objective and transparent. The resulting non-transmission tariff is to be paid within the framework of the internal ordering process by the distribution system operators, who can then pass it on to their own customers in the form of upstream network costs.

647 A ruling on the regulatory account or on other compensation mechanisms can be dispensed with. Since the tariffs to be paid by the respective downstream network operator correspond precisely to the costs incurred by the customer, no higher or lower revenues are to be expected.

648 The indicative meter operation tariffs for the individual exit points to downstream distribution networks notified to the ruling chamber by the transmission system operators and their share of the allowed total revenue for each transmission system operator are apparent from Annexes 1 and 4.

c) Meter operation at interconnection points and storage points

649 In contrast, the operation of metering stations at interconnection points and storage points is classified as a transmission service. These are procedures that are not attributable to individual network customers but relate to a multiplicity of network users in each case. In this respect too, point-specific allocation would be possible in order to charge the relevant costs to at least those network users who use the respective points on a cost-reflective basis. However, it is not possible to justify why there should be such precise cost allocation for meter operation whereas all other costs, for instance for the use of specific pipeline sections, are shared evenly across all users as a general transport tariff. No impediment to competition can be considered in metering either, because the MsbG does not apply anyway at the relevant exit points and there is no market for competing meter operators owing to a lack of potential clients (apart from the network operators themselves).

4. Alternative nomination procedure (operative part 8)

650 The directives set out in operative part 8 are based on section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 27(4) sentence 1, Article 26(1)(c)(ii), Article 4(1) of Regulation (EU) 2017/460.

651 The alternative nomination procedure pursuant to section 15(3) GasNZV is classified as a non-transmission service. It is not a transmission service according to Article 4(1) sentence 1 of

Regulation (EU) 2017/460. Within the meaning of Article 4(1) sentence 1(a) of Regulation (EU) 2017/460, the costs of the alternative nomination procedure are not based on the cost drivers of capacity and distance and are not related to investment in infrastructure which is part of the regulated asset base for the provision of transmission services within the meaning of Article 4(1) sentence 1(b) of Regulation (EU) 2017/460. This is a procedure that has only an economic, not a technical link to gas transport.

652 In accordance with Article 4(4) sentence 2(a) of Regulation (EU) 2017/460, it is cost-reflective and non-discriminatory that those network users who use an alternative nomination procedure themselves or through their balancing group manager shall be expected to bear the costs of this procedure. In addition, it is objective and transparent and does not cause cross-subsidisation within the meaning of Article 4(4) sentence 2(b) of Regulation (EU) 2017/460.

VI. Duration of applicability of the determination pursuant to Article 27(5) of Regulation (EU) 2017/460 (operative part 9)

653 The directives in operative provision 9 are issued on the basis of section 29(1) EnWG in conjunction with section 56(1) sentence 1 para 2, sentences 2 and 3 EnWG in conjunction with Article 27(4) sentence 1 and Article 27(5) of Regulation (EU) 2017/460.

654 Pursuant to Article 27(5) sentence 4 of Regulation (EU) 2017/460 the procedure pursuant to Articles 26 and 27 of Regulation (EU) 2017/460, including the calculation and publication of tariffs, which was to be carried out for the first time by 31 May 2019, is to be repeated at least every five years. Although the most recent decisions by the ruling chamber pursuant to Article 27 of Regulation (EU) 2017/460 were only taken on 29 March 2019 (BK9-18/610-NCG and BK9-18/611-GP), the ruling chamber decided to repeat the procedure after just one year. The background to this is the merger of the two current market areas Net Connect Germany and Gaspool to form a joint market area for the whole of Germany that is expected to take place on 1 October 2021. Firstly the market areas over which the validity of the two decisions extends will no longer exist from that date onwards, such that their temporal scope will formally end. Secondly, the merger will lead to a significant change in the capacity framework as a result of which it appears appropriate to carry out a review of the established reference price methodology and another cost allocation assessment in accordance with Article 5 of Regulation (EU) 2017/460. It can be appropriate to carry out the procedure again due to new findings related to the volume risk pursuant to Article 7 sentence 2(d) of Regulation (EU) 2017/460. Other developments in the course of the market area merger or the energy transition could also make a new procedure necessary, whereby the interest of network users in a stable and reliable tariff system must always be kept in mind. Should the ruling chamber establish that there is no such corresponding need for a new procedure, this

decision will remain valid until it is replaced by a successor decision in accordance with Article 27(5) sentence 4 of Regulation (EU) 2017/460 with effect for 2026 at the latest.

655 To clarify it must be mentioned that this determination does not govern the start or duration of regulatory periods and tariff periods. Pursuant to section 3(2) ARegV the regulatory periods last five years. The third regulatory period runs from 1 January 2018 until 31 December 2022, and the fourth regulatory period will run from 1 January 2023 until 31 December 2027; see section 3(1) ARegV in conjunction with section 34(1b) sentence 1 ARegV. The tariff period is always the calendar year, section 17(3) sentence 1 ARegV.

VII. Reporting requirement in accordance with section 32(1) para 11 ARegV in conjunction with section 28 sentence 1 para 3 ARegV (operative part 10)

656 The order set out in operative part 10 are issued on the basis of section 29(1) EnWG in conjunction with section 32(1) para 11 ARegV in conjunction with section 28 sentence 1 para 3 ARegV.

657 According to operative part 10(a), there is a requirement to give notification of the information detailed in Article 26(1) of Regulation (EU) 2017/460. If, prior to the repetition of this procedure in accordance with Article 27(5) sentence 4 of Regulation (EU) 2017/460, new circumstances arise which were not considered in this determination, in particular in the form of new non-transmission services for a transmission system operator active in the German market area, and which could make it necessary to reassess the points listed in Article 26(1) of Regulation (EU) 2017/460, the Bundesnetzagentur must be notified of such circumstances immediately. In addition, according to operative part 10(b), after the end of a tariff period a report must always be produced with which the volume risk according to Article 7 sentence 2(d) of Regulation (EU) 2017/460 can be assessed.

658 In order to realise efficient network access and the objectives set out in section 1(1) EnWG, the regulatory authority may make decisions on the scope, date and form of the data to be collected and submitted according to sections 27 and 28 ARegV by means of a determination in accordance with section 29(1) EnWG (section 32(1) para 11 ARegV). According to section 28 sentence 1 para 3 ARegV, the network operators must submit the data needed to assess the network tariffs in accordance with section 17 ARegV, in particular the data contained in the report prescribed in section 28 GasNEV, to the regulatory authority.

659 To allow the continuous examination and assessment of in particular network tariffs and tariffs for non-transmission services on the basis of the criteria set out in Regulation (EU) 2017/460, the Bundesnetzagentur must be informed in due time of new circumstances which could potentially trigger an obligation to carry out a renewed consultation according to Article 26 of Regulation (EU) 2017/460. In the event of significant changes, consideration shall be given in particular to bringing forward the consultation to be repeated at least every five years in accordance with Article 27(5)

sentence 4 of Regulation (EU) 2017/460. Against this background, a binding reporting requirement as prescribed by operative part 10(a) is necessary and appropriate.

660 In addition, the report pursuant to operative part 10(b) puts the Bundesnetzagentur into a position to investigate the effects of the established reference price methodology that is to be applied jointly, in particular on the booking behaviour of network users. The report can be a first indication of changes to booking behaviour. Although it is not the case that – as discussed – in the existing entry and exit system considerably more gas is transported into other systems than for consumption purposes within the system, so pursuant to recital 6 of Regulation (EU) 2017/460 safeguards to shelter captive customers from risks related to large transit flows are not required as such, in the course of previous consultations and legal proceedings the concern was repeatedly expressed to the Bundesnetzagentur that the joint application of the established reference price methodology could lead to a loss of bookings that were allocable to transit. If indications of this emerge from the report, they can be taken into account (in conjunction with further elucidation of developments) in the subsequent determination proceedings that must be undertaken cyclically in accordance with Article 27(5) sentence 4 of Regulation (EU) 2017/460. For the sake of clarity, the reporting requirement also includes the year 2020, since the reporting requirements ordered in the preceding determinations expire with the issue of this subsequent decision pursuant to Article 27(5) sentence 4 of Regulation (EU) 2017/460. It is intended that the report will differentiate the time periods up to the market area merger.

661 Since pursuant to Article 10(1) of Regulation (EU) 2017/460 the reference price methodology is to be applied jointly by the transmission system operators and pursuant to Article 10(8) of Regulation (EU) 2017/460 they must jointly fulfil the publication obligations pursuant to Articles 29 and 30 of Regulation (EU) 2017/460, the ruling chamber considers a joint reporting duty pursuant to operative part 11 sentence 2 et seq to be expedient too. Given the transmission system operators' obligation to cooperate, as discussed repeatedly in this decision, a coordinated approach of this nature is also appropriate. If individual transmission system operators would like to submit divergent opinions, they are of course free to do so.

662 In addition to technical capacity, the survey relates on the one hand to forecasted average contracted non-adjusted capacity (as is also incorporated in the reference price methodology prior to rescaling in accordance with Article 6(4)(c) of Regulation (EU) 2017/460) and on the other hand to the capacity that is adjusted accordingly by multipliers and discounts (which makes the above-mentioned rescaling necessary).

663 If the transmission system operators find it impossible to explain to what extent the developments are the result of significant changes in technical capacity, the booking behaviour of network users or other factors, reasons for this must be given in the report.

664 Furthermore, the reporting requirement requires that the revenue lost as a result of tariff exemptions for biogas and power-to-gas should be shown. The Bundesnetzagentur and the market are thus put into a position to better understand the trend in the monetary implications of this ruling.

665 The report is to be published by the transmission system operators. This is in line with the demand by some market participants from the consultation to make the collected data and analyses publicly accessible. The ruling chamber considers this appropriate because the present questions are to be consulted publicly and comprehensively anyway.

VIII. Data collection (operative part 11 of the consultation version)

666 The ruling chamber has decided not to introduce the data collection included in the consultation version. For one thing, as discussed in the consultation, the collection would occur too late to conclude a procedure for the tariffs from 1 January 2022 in a timely manner. Moreover, other mechanisms such as the reporting requirement pursuant to operative part 10(b), ensure that the ruling chamber would be able to initiate a procedure in accordance with Articles 26 and 27 of Regulation (EU) 2017/460 on the basis of new findings.

IX. Miscellaneous

667 Annexes 1 to 6 form part of this decision.

668 Regarding costs, a separate notice will be issued as provided for by section 91 EnWG.

669 Since the determination is issued in relation to all transmission system operators operating in the German market area within the meaning of section 3 para 5 EnWG, pursuant to section 73(1a) sentence 1 EnWG the ruling chamber replaces service pursuant to section 73(1) sentence 1 EnWG with public notification of the determination. Pursuant to section 73(1a) sentence 2 EnWG, this public notification is effected by publication of the operative part of the determination, the notification of appellate remedies and a brief statement that the decision in full has been published on the regulatory authority's website in the Bundesnetzagentur's Official Gazette. In accordance with section 73(1a) sentence 3 EnWG the determination is considered to have been served on the day on which two weeks have elapsed since the date of public notification in the regulatory authority's Official Gazette.

Notification of appellate remedies

Appeals against this decision may be brought within one month of its service. Appeals should be filed with the Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen, Tulpenfeld 4, 53113 Bonn. It is sufficient if the appeal is received by the Higher Regional Court of Düsseldorf within the time limit specified (address: Cecilienallee 3, 40474 Düsseldorf).

The appeal must be accompanied by a written statement setting out the grounds for appeal. The written statement must be provided within one month. The one-month period begins with the filing of the appeal; this deadline may be extended by the court of appeal's presiding judge upon request. The statement of grounds must state the extent to which the decision is being contested and its modification or revocation sought and must indicate the facts and evidence on which the appeal is based. The appeal and the grounds for appeal must be signed by a lawyer.

The appeal does not have suspensory effect (section 76(1) EnWG).

Bonn, 11 September 2020

Chair

Vice Chair

Vice Chair

Dr Christian Schütte

Dr Ulrike Schimmel

Roland Naas