Bundesnetzagentur

Ruling Chamber 9 BK9-20/007

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, sentence 2 EnWG in conjunction with Article 6(11) and Article 7(3) of Regulation (EC) No 715/2009 in conjunction with Article 25(1) and Article 28(1) and (2) of Regulation (EU) 2017/459

with respect to the approval of a project application for incremental gas transport capacity regarding the border between the Russian Federation (the Nord Stream and Nord Stream 2 pipeline systems) and the German market area Trading Hub Europe (THE)

vis-à-vis FLUXYS Deutschland GmbH, Elisabethstraße 11, 40217 Düsseldorf, legally represented by its management board,

- applicant 1 -

vis-à-vis Gasunie Deutschland Transport Services GmbH, Pasteurallee 1, 30655 Hannover, legally represented by its management board,

- applicant 2 -

vis-à-vis GASCADE Gastransport GmbH, Kölnische Straße 108-112, 34119 Kassel, legally represented by its management board,

- applicant 3 -

vis-à-vis NEL Gastransport GmbH, Kölnische Str. 108-112, 34119 Kassel, legally represented by its management board,

- applicant 4 -

vis-à-vis ONTRAS Gastransport GmbH, Maximilianallee 4, 04129 Leipzig, legally represented by its management board,

- applicant 5 -

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 28 April 2021:

1.) The project application in the version dated 16 November 2020 (Annex 1 of this Decision) for an incremental capacity project on the border between the Russian Federation (the Nord Stream and Nord Stream 2 pipeline systems) and the German market area Trading Hub Europe (THE) has been approved with the following amendments:

a) The relevant offer level is given in Annex 2 of this Decision.

b) Section 3 para 3 sentence 1 of the Supplementary Rules and Conditions (SRC) shall read as follows:
"In derogation of section 25(3) GRC, the shipper is entitled to terminate the entry or exit contract following the publication of the charge formed pursuant to section 3 para 1 SRC, which is effective for the performance period of the entry or exit contract, for the subsequent performance period with a notice period of 10 working days prior to the start of the subsequent performance period, provided that the charge formed pursuant to section 3 para 1 SRC exceeds the maximum charge designated for this performance period in Annex 1 of these SRCs (exceptional right of termination)."

Section 4 SRC ("Conclusion of contract under the alternative allocation mechanism") is not to be used.

In place of the Annex 1 SRC (exceptional right of termination) submitted in the application, the following clause shall be used:

"The maximum charge for the performance period is determined in accordance with the charges set out in section 25(1) GRC including any mandatory minimum premium, multiplied by the change in the consumer price index (overall index) for Germany (CPI) published by the Federal Statistical Office for the performance period from the CPI for 2022. The reference point is the charges applicable from 1 January 2022."

c) The present value of the estimated increase in the allowed or target revenue of the transmission system operators is set for each booking scenario as follows;

Booking scenario 2	€1,216,408,059
Booking scenario 6	€994,766,521
Booking scenario 10	€812,973,118
Booking scenario 11	€961,263,693
Booking scenario 12	€1,080,421,952
Booking scenario 16	€757,856,344
Booking scenario 19	€900,375,342
Booking scenario 20	€1,018,573,626
Booking scenario 22	€688,658,538
Booking scenario 23	€948,556,416
Booking scenario 24	€900,814,576
Booking scenario 26	€643,692,937
Booking scenario 28	€921,960,369
Booking scenario 29	€887,208,333
Booking scenario 30	€867,589,180
Booking scenario 31	€856,024,419

d) The f-factor is set for each booking scenario as follows:

Booking scenario 2	0.97
Booking scenario 6	0.96
Booking scenario 10	0.95
Booking scenario 11	0.96
Booking scenario 12	0.97
Booking scenario 16	0.95
Booking scenario 19	0.96
Booking scenario 20	0.96
Booking scenario 22	0.95
Booking scenario 23	0.96
Booking scenario 24	0.96
Booking scenario 26	0.94
Booking scenario 28	0.96
Booking scenario 29	0.96
Booking scenario 30	0.96
Booking scenario 31	0.96

e) The mandatory minimum premium is set for each booking scenario as follows:

Booking scenario 2	€10.79/(kWh/h)/a
Booking scenario 6	€8.32/(kWh/h)/a
Booking scenario 10	€6.31/(kWh/h)/a
Booking scenario 11	€7.96/(kWh/h)/a
Booking scenario 12	€9.34/(kWh/h)/a
Booking scenario 16	€5.74/(kWh/h)/a
Booking scenario 19	€7.32/(kWh/h)/a
Booking scenario 20	€8.57/(kWh/h)/a
Booking scenario 22	€5.02/(kWh/h)/a
Booking scenario 23	€7.83/(kWh/h)/a
Booking scenario 24	€7.33/(kWh/h)/a
Booking scenario 26	€4.48/(kWh/h)/a
Booking scenario 28	€7.55/(kWh/h)/a
Booking scenario 29	€7.18/(kWh/h)/a
Booking scenario 30	€6.98/(kWh/h)/a
Booking scenario 31	€6.86/(kWh/h)/a

f) The present value of binding commitments of network users is set for each booking scenario as follows:

Booking scenario 2	€1,179,915,818
Booking scenario 6	€954,975,861
Booking scenario 10	€772,324,463
Booking scenario 11	€922,813,146
Booking scenario 12	€1,048,009,294
Booking scenario 16	€719,963,527
Booking scenario 19	€864,360,329
Booking scenario 20	€977,830,681
Booking scenario 22	€654,225,612
Booking scenario 23	€910,614,160
Booking scenario 24	€864,781,993
Booking scenario 26	€605,071,361
Booking scenario 28	€885,081,955
Booking scenario 29	€851,720,000
Booking scenario 30	€832,885,613
Booking scenario 31	€821,783,443

g) No alternative allocation mechanism is to be used.

In other respects, the application is rejected.

2.) The right to order payment of costs is reserved.

Rationale

I.

1 The proceedings concern the approval of a project application for incremental gas transport capacity within the meaning of Article 3(11) of Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013. The project application relates to the market area border between the Russian Federation (RU) and the German market area Trading Hub Europe (THE) and is for incremental capacity.

2 THE has two entry points from which natural gas from RU is transported using the high-pressure pipeline Nord Stream (Greifswald entry point) and is planned to be transported using the high-pressure pipeline Nord Stream 2 (Lubmin II entry point), which is under construction.

Transmission system operator	Capacity product	Tech cap GY 2025-2026
FLUXYS Deutschland GmbH	DZK1	5,437,557 kWh/h
	DZK2	1,393,729 kWh/h
Gasunie Deutschland Transport Services GmbH	FZK	5,745,688 kWh/h
Lubmin-Brandov Gastransport GmbH	Non-regulated (BZK)	7,932,260 kWh/h
	DZK	1,146,684 kWh/h
NEL Gastransport GmbH	DZK	15,021,164 kWh/h
OPAL Gastransport GmbH	"Transit"	15,864,532 kWh/h
	DZK	4,586,737 kWh/h

Table 1: Overview of Greifswald products and technical capacity in GY 2025-2026; technical capacity data from publication of the respective TSO as at 12 March 2021

Product	Tech cap GY 2025-2026		Allocation restriction	Adjacent balancing zone
	Gascade	FluxysD Gasunie ONTRAS (each)		
FZK	1,344,000 kWh/h*	-	-	-
DZK	22,543,324 kWh/h	7,365,365 kWh/h	Deutschneudorf-EUGAL	Net4Gas, Czechia
			VIP Brandov-GASPOOL	Net4Gas, Czechia
DZK1	338,652 kWh/h	957,056 kWh/h	Bunde	GTS, Netherlands
			Drohne NOWAL	NetConnect Germany
DZK2	2,931,020 kWh/h	1,197,075 kWh/h	Deutschneudorf-EUGAL	Net4Gas, Czechia
			Bunde	GTS, Netherlands
			Drohne NOWAL	NetConnect Germany
			Zone Oude Statenzijl	GTS, Netherlands
			VIP Brandov-GASPOOL	Net4Gas, Czechia
DZK3	1,010,000 kWh/h	330,000 kWh/h	Deutschneudorf	Net4Gas, Czechia
			Deutschneudorf-New-HSK-1	Net4Gas, Czechia
			VIP Brandov-GASPOOL	Net4Gas, Czechia
DZK4	2,222,000 kWh/h	726,000 kWh/h	Deutschneudorf	Net4Gas, Czechia
			Deutschneudorf-EUGAL	Net4Gas, Czechia
			VIP Brandov-GASPOOL	Net4Gas, Czechia
DZK5	4,273,311 kWh/h	1,396,230 kWh/h	Olbernhau II	Net4Gas, Czechia
			VIP Brandov-GASPOOL	Net4Gas, Czechia

Table 2: Overview of Lubmin II products and technical capacity in GY 2025-2026; technical capacity data from publication of the respective TSO as at 26 February 2021;
(*) At this time GASCADE had published an incorrect amount of 3,323,274 kWh/h

(1) Non-binding market demand indications

3 From 1 July 2019 to 26 August 2019, the Vereinigung der Fernleitungsnetzbetreiber Gas e.V. (association of gas transmission system operators; FNB Gas), on behalf of the German transmission system operators (TSOs), gave all network users the opportunity to submit non-binding capacity demand indications for the German market area borders. The aim of this was to analyse whether the capacity needs indicated by network users for a market area border could be covered by the existing transmission system infrastructure or whether additional gas transport capacity would need to be created for this purpose.

4 Within the context of this non-binding market survey, the applicants received the following demand indications for the market area border relevant here:

Entry capacity	Gas year (GY)	Amount	Capacity product	Allocation restriction	Further information
THE	2025-2026 to 2039-2040	7,800,000 kWh/h	Firm, freely allocable capacity (FZK)		Combination of both requests, inc at the Netherlands border
	2025-2026 to 2039-2040	4,100,000 kWh/h	dynamically allocable capacity (DZK)	Netherlands	Combination of both requests, inc at the Netherlands border

Table 3: Market demand indications received

(2) Market demand assessment

5 The applicants announced the initiation of a project at the market area border between RU and THE with allocation to the Netherlands market area border in the market demand assessment report published on 21 October 2019.

https://www.fnb-gas-capacity.de/fileadmin/files/MDAR_Zyklus_2019-2021/MDAR_Russian_Federation_THE_eng.pdf
Link as at 19 November 2020

6 Demand was identified both for conventional incremental capacity (for DZK with an allocation restriction to the Netherlands market area border and for FZK) and for an upgrade of existing, partly already contracted DZK to higher-quality FZK.

(3) Design phase and consultation

7 Following the market assessment, the applicants conducted technical studies to test technical feasibility and to design an expansion plan to meet market demand. They made the results available in a draft project proposal for consultation with a deadline of 1 October 2020.

https://www.fnb-gas-capacity.de/fileadmin/files/zyklus_2019_2021/konsultation/RU-THE/Consultationsdocument_THE-RU.pdf
Link as at 11 February 2021

8 This project proposal describes all measures necessary to provide the capacity requested jointly at the Russian market area border and the market area border to the Netherlands. However, it is actually two separate project proposals to be consulted on separately, although the allocation of incremental capacity at the Russian market area border depends on the allocation of incremental capacity between THE and the Netherlands market area TTF. The requests were made for GY 2025-2026 up to and including GY 2039-2040. However, it will not be possible to provide the capacity until GY 2027-2028 because of the extensive expansion measures required, according to the applicants.

9 The applicants examined a total of 63 scenarios in the technical studies for the 2019-2021 incremental capacity cycle. Each scenario was based on a different combination of capacity for which a non-binding demand indication had been made for other market area borders. According to the TSOs, the expansion measures were based on the premise that all the capacity for which non-binding demand had been indicated would be booked and the economic test had been

conducted successfully. The consultation document only describes the expansion measures of the "maximum scenario", which would be necessary to meet all the requests shown above at the same places in the system. The basis for the expansion measures described was the infrastructure included in the draft document for the Gas Network Development Plan (NDP) 2020-2030, including the network expansion measures resulting from the "basic variant" modelling. The investment costs given were said to be initial estimates. In addition to the investment costs, there were operating expenses for the fuel gas needed to operate the compressors. The annual costs given below were for the maximum scenario. They included the natural gas tax and the CO_2 costs as well as the price of the commodity. No detailed breakdown of the investment or compressor energy costs was given in the consultation document.

10 Within these scenarios, the two separate project proposals for the Russian and Netherlands market area borders were considered together because they were requested together. The total investments on the pipeline section of the MIDAL are about €2.7bn plus about €33m for fuel gas costs, on the NEL east of the Achim shut-off station they amount to about €870m plus around €19.6m for fuel gas, while on the NEL west of the Achim shut-off station they total about €64m. Investment costs for expansion measures on the western part of the GUD network are about €26.8m. These latter measures, which are also included in the Gas Network Development Plan (NDP) 2020-2030, had not yet been confirmed when the consultation took place.

11 After the consultation, Gazprom export LLC (GPE) submitted a statement on 13 October 2020 relating to the project proposals at the German borders to the market area of the Russian Federation and the Netherlands, the project proposals at the Greifswald and Lubmin II interconnection points and at the border between Poland and Germany, including this project draft for incremental capacity at the market area border between RU and THE. GPE expressed concern about the level of the mandatory minimum premium, which it stated could lead to cross-subsidisation of the projects. Moreover, GPE wrote that it expected more than one offer level for the proposed projects in order for the economic tests of the individual projects to be passed. GPE also expressed the hope that the respective authorities would fine-tune the tariff methodology to achieve a predictable, reliable gas transmission market.

> https://www.fnb-gas-capacity.de/fileadmin/files/zyklus_2019_2021/Genehmigung_Ver%C3%B6ffentlichung/THE-RU/Comments.zip
> (accessible under "Publication market area border Russian Federation-THE – Comments")
> Link as at 17 December 2020

(4) Final project application

12 The applicants submitted a project application with requests for approval on 16 November 2020 that contained project planning for both the requested 7.8 GWh/h of FZK entry capacity and the 4.1 GWh/h of DZK entry capacity.

13 The submitted project application is different in some respects to the draft that was the subject of consultation in summer 2020. One example is that the technical studies now look at 47, rather than the previous 63, booking scenarios, each based on a different combination of capacity for which non-binding demand indications had been made. For each request, therefore, there are only 24 scenarios of combinations with requests at other market area borders, rather than the previous 32.

14 The costs of the planned measures on the NEL pipeline are also slightly less than in the consultation document, as are the estimated costs for the planned measures on the MIDAL pipeline, with the sum total of expected costs now put at around €2.8bn. Following the Bundesnetzagentur's issue of the REGENT determination on 11 September 2020, the applicants set a reference price of €3.73/(kWh/h)/a for the economic test.

15 The project application contains in particular the following information:

1. A list of the planned offer of bundled yearly capacity products attached an as annex to the project application submitted.[1]
2. Supplementary rules and conditions relating to the project
3. A timeline for implementation
4. The following information and parameters for the economic test
    a. within the meaning of Article 22(1)(b) of Regulation (EU) 2017/459: the **present value of the estimated increase in the allowed or target revenue** of the transmission system operator associated with the incremental capacity included in the offer level. The table in Annex 4 to the project application shows different present values of between €380,723,625 and €695,533,476 for each conceivable booking scenario in conjunction with the incremental capacity in the offer level.
    b. within the meaning of Article 25(1)(a) of Regulation (EU) 2017/459: the **estimated reference price** of €3.73/(kWh/h)/a for a product of firm, freely allocable capacity (FZK).
    c. within the meaning of Article 22(1)(c) of Regulation (EU) 2017/459: the **f-factors** of 0.52 to 0.61 for each conceivable booking scenario (see Annex 4 of the project application).

[1] The offer level given there was later amended (see Annex 2 of this Decision). Further details are provided below in this Decision.

d. within the meaning of Article 22(1)(a) of Regulation (EU) 2017/459: the **mandatory minimum premiums** of between €0.00/(kWh/h)/a and €1.66/(kWh/h)/a for each conceivable booking scenario (see Annex 4 of the project application).

e. within the meaning of Article 22(1)(a) of Regulation (EU) 2017/459: the **present value of binding commitments of network users** used as a basis for calculation for contracting capacity. The calculation tools included as annexes to the project application give present values of between €197,976,285 and €422,962,472 for each conceivable booking scenario in conjunction with the incremental capacity included in the offer level.

16 For further details, reference is made to the project application (Annex 1 of the Decision), in particular with regard to the additional network expansion needed, the cost estimates used as a basis to form the present value and the approaches taken to the f-factor.

(5) Completeness check, requests for additional information

17 The ruling chamber first checked the project application in the version dated 16 November 2020 for completeness. Following various conversations with the applicants and requests for additional information by the ruling chamber, the applicants expanded or provided further detail on some of the underlying parameters of the economic test, the assumptions about the different booking scenarios, the offer level and the SRCs in the period between October 2020 and March 2021. The applicants and other TSOs then made changes to this project and other incremental capacity projects related to this project:

18 The ruling chamber was of the opinion that the applicants needed to provide additional explanations about and corrections to, in particular, the parameters of the economic test, specifically with regard to the assumptions underlying the investment costs, the compressor energy and the booking assumptions as well as the present values determined of the estimated increase in the allowed revenue and the binding commitments of network users for contracting capacity and the corresponding f-factors and mandatory minimum premiums.

19 In joint talks with other TSOs on 28 October 2020, the ruling chamber had already informed the applicants of necessary clarifications on the subject of compressor energy, among other things for the additional compressor energy costs that were to be applied for the additional transports that were assumed to arise from the booking of incremental capacity, which applied to both new and existing compressor stations. There followed various talks and the exchange of more, updated data on the economic test, during which the amount of the investment costs estimated by the applicants (and the TSOs in general) was called into question by the ruling chamber. In the opinion of the ruling chamber, no clear justification for the deviations from the standard cost rates of the NDP had been provided, among other things.

20 In a letter of 20 January 2021, the ruling chamber also requested the applicants to provide further explanations and reasons for the booking assumptions used by the applicants for the f-factor.

21 In light of the continuing deficiencies that had been found in the application documents for this process and other incremental capacity processes running in parallel and to which this process is closely connected (see section I (3) *Design phase and consultation*), the ruling chamber held a further meeting with the applicants and other TSOs involved on 27 January 2021, in which it asked about the progress of the follow-up work and requested the corrections and explanations that still had to be provided. Consideration was made of the interaction between the individual incremental capacity projects, in particular the project at the border between Germany and the Netherlands which, as already seemed likely at that time, would not take place. In fact, in February 2021 there was a hearing of German TSOs about the request for amendment to the Gas NDP 2020-2030 (8615-NEP Gas 2020-2030), which had been decided by the Bundesnetzagentur on 19 March 2021. In accordance with it, individual measures for the security of supply in the Netherlands are to be included in the Gas NDP 2020-2030, leading to an additional 12 GWh/h of DZK at the entry points of Greifswald and Lubmin II and the same at the exit point Bunde/Oude Statenzijl H-Gas. The TSOs took the view that it was not necessary to take further account of the project at the Germany-Netherlands border or to create new DZK in this process. They also determined that the alternative allocation mechanism originally applied for (see section 4 SCR, "Conclusion of contract under the alternative allocation mechanism") in this process practically no longer depended on the demand for capacity in the incremental capacity project at the border between the German and Netherlands market areas (THE and TTF).

22 The applicants supplied the requested additional explanations and reasoning for their booking assumptions within the economic analysis of the project in a letter dated 3 February 2021. In addition, the applicants submitted further information about the determination of the investment costs and the compressor energy costs in a letter dated 11 February 2021. More corrected offer levels were submitted by the applicants in the course of February 2021.

23 Following the meeting of 27 January 2021, on 4 March 2021 the applicants submitted in writing a revision of Annexes 1, 2, 3 and 4 of the project application (the scenario matrix, the offer level, the SRCs and the parameters for the economic test) based on the investment costs determined by the ruling chamber and divided between the respective projects. In a further letter on the same day, they submitted new tables related to the carrying out of the economic test (the economic viability tool). These were related to the 16 individual, remaining scenarios relevant to this project. These most recently submitted documents provided in particular new data on the offer level, the present values of the estimated increase in the allowed revenue, the present values of binding commitments of network users for contracting capacity, the f-factors and the mandatory minimum premiums. In a letter of 5 March 2021, the applicants submitted a new, final overview in table form

of the compressor energy cost calculation related to the different booking scenarios and certain network areas and equipment (compressor stations).

24 Following a further meeting with the applicants and other TSOs on 11 March 2021, in a letter of 16 March 2021 the applicants submitted the missing Annex of the SRCs detailing the calculation of the maximum charge for exercising the exceptional right of termination.

25 The ruling chamber informed the applicants that the project application was complete in a letter of 18 March 2021. On 24 March 2021, the ruling chamber, the applicants and other TSOs held a meeting that focused on the preparation of the formal hearing.

(6) Coordination and participation

26 The Bundesnetzagentur informed the regulatory authority of the federal states of North Rhine-Westphalia, Lower Saxony, Hesse and Saxony, in which the applicants have their headquarters, of the proceedings on 25 November 2020.

27 The ruling chamber gave each of the applicants the opportunity to submit comments in a letter dated 6 April2021. In addition, the ruling chamber gave the regulatory authorities of the federal states and the Bundeskartellamt the opportunity to state their views on 6 April2021.

28 The Lower Saxony regulatory authority and the Bundeskartellamt both wrote on 8 April 2021 to decline the opportunity to comment. The North Rhine-Westphalia, Hesse and Saxony state regulatory authorities did not take the opportunity to respond.

29 The applicants responded in letters dated 14 April 2021 (applicant 1), 15 April 2021 (applicants 2, 3 and 4) and 16 April 2021 (applicant 5). The applicants jointly criticised the ruling chamber's redistribution of the compressor energy costs from those given in the application, with the effect that this project – and other incremental capacity projects related to this project – had been allocated additional costs while the compressor energy costs for the equally related project at the Danish-German border (BK9-20/004) had been cut (see II. 3.4.2.2 *"Compressor energy costs"*). Further transport along the MIDAL pipeline to the Herchenrode transfer point would require additional compressor use for those transports resulting from the project at the Danish-German border as well, in the view of the applicants. The applicants also criticised that the wording of section 3 para 3 sentence 1 SRC as amended by the ruling chamber was in some respects not specific enough (see II. 3.2 *"Supplementary rules and conditions"*). Moreover, in the view of applicants 2, 3, 4 and 5, the SRCs for the incremental capacity auction should contain the provision requested by the TSOs on the determination of the maximum charge, in which only the capacity charge formed in accordance with regulatory requirements is adjusted for inflation without the mandatory minimum premium and potential auction premium. The applicants also jointly criticised the fact that the ruling chamber had adjusted the booking assumptions with regard to future marketing after the initial auction, leading to an increase in the f-factor and the present value

of binding commitments of network users (see II. 3.4.4 "f-factor"). They wrote that they could only partially understand the reduction of the booking forecast for the period for 2042 onwards (applicants 3 and 4) or 2050 onwards (applicants 1, 2 and 5) on the basis it was not yet possible to know what the European legislation for the regulation of hydrogen would be. The applicants put forward that a future regulation of natural gas and hydrogen together was not improbable, so booking assumptions for the period beyond 2050 were appropriate. If this joint regulation did not occur, it was likely that the interconnection point, and thus also the natural gas infrastructure to be expanded, would become part of the hydrogen infrastructure, with the result that the remaining acquisition and production costs would not be borne by natural gas users. The current unequal treatment of costs to be taken into consideration up to the end of the depreciation period in 2072 and the revenue that is cut off in 2050 was unjustified, according to the applicants. Applicants 3 and 4 objected to the reduction in the booking forecasts with the additional argument that methane was used in industrial processes to a not inconsiderable extent and therefore there was a likelihood that it would be transported in the period beyond 2050.

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

II.

31 The applicants' project application for an incremental gas transport capacity project in the form of a capacity upgrade has been approved but only with amendments to the offer level, the SRCs and the parameters of the economic test (operative part 1). To this extent, the formal and material requirements for approval have been met. The project application could not be approved with the offer level, SRCs, parameters and alternative allocation mechanism from the original application.

1. Legal basis

32 The approval of the project application, including the amendments in operative part 1, is based on section 29(1) EnWG and section 56(1) sentence 1 para 2, sentence 2 EnWG in conjunction with Article 6(11) and Article 7(3) of Regulation (EC) No 715/2009 in conjunction with Article 25(1) and Article 28(1) and (2) of Regulation (EU) 2017/459. Pursuant to section 56 EnWG, the Bundesnetzagentur is active in the enforcement of the above-mentioned European Regulations. Pursuant to Article 28(1) and (2) and Article 25 of Regulation (EU) 2017/459, the national regulatory authority decides in coordination with the regulatory authority of the neighbouring Member State whether to approve the project application submitted, including the information on the economic test.

2. Formal requirements for approval

33 The formal requirements for approval have been met.

2.1. Competence

34 The Bundesnetzagentur is the competent regulatory authority to decide on the approval pursuant to Article 28(2) of Regulation (EU) 2017/459 and section 56(1) sentence 1 para 2 EnWG. The competence of the ruling chamber ensues from section 59(1) sentence 1 EnWG.

2.2. Application

35 The application was submitted in due form. The project application contains all the information required under Article 28(1) sentence 2 of Regulation (EU) 2017/459 or this information has been provided fully upon subsequent request by the ruling chamber (see rationale I. *(5) Completeness check, requests for additional information*).

2.3. Deadline for applications

36 It was possible to decide on the application submitted on 16 November 2020. Although, according to Article 28(2) and (3) of Regulation (EU) 2017/459, the approval proceedings should be started eight months before the relevant auction for yearly capacity, which will take place on the first Monday in July 2021 (Article 11(4) of Regulation (EU) 2017/459), this does not lead to a deadline.

2.4. Hearing

37 Before the decision was issued, pursuant to section 56(1) sentence 3 in conjunction with section 67(1) EnWG, the applicants were given an opportunity to comment from 6 April 2021 to 16 April 2021.

2.5. Coordination with the Russian regulatory authority

38 Coordination of this decision with the Russian regulatory authority was not required and did not take place.

39 Pursuant to Article 28(2) of Regulation (EU) 2017/459, the Bundesnetzagentur is to discuss the matter with the relevant regulatory authority of a Member State both before and during the proceedings and coordinate the approval decision with it. If, as here, it refers to entry points from third countries, this only applies if a corresponding decision has been made by the relevant national regulatory authority (Article 2(1) sentence 2 of Regulation (EU) 2017/459). This is not the case here.

2.6. Involvement of other authorities

40 The Bundesnetzagentur involved other authorities to the extent prescribed by law.

41 Pursuant to section 56(1) sentence 3 in conjunction with sections 55(1) and 58(1) sentence 2 EnWG, the Bundeskartellamt and the regulatory authorities of the federal states in which the applicants have their headquarters were informed of the start of the proceedings and given the opportunity to comment.

3. Substantive requirements for approval

42 The project application was approved in accordance with Article 28(2) of Regulation (EU) 2017/459 with the changes set out in operative part 1(a) to (g). The substantive requirements for approval have been met.

43 The scope of Article 22 et seq of Regulation (EU) 2017/459 applies, despite the fact that there are two deviations from the ideal process.

44 The project planning relates solely to the entry side to the future German market area THE. Usually, the project planning would be coordinated on both sides with bundled capacity marketing, because in accordance with Article 2(1) sentence 1 and Article 26(1) sentence 1 of Regulation (EU) 2017/459, the incremental capacity process relates to interconnection points. In Article 3 point 2 of Regulation (EU) 2017/459, these are defined as network points connecting adjacent entry-exit systems of EU Member States or connecting an entry-exit system with an interconnector, at which the Regulation is generally binding on both sides. Since the change to

the legal definition of interconnectors,[2] the section of the Nord Stream pipeline system located in the German territorial sea beyond the Greifswald entry point and the section of the Nord Stream 2 pipeline located in the German territorial sea beyond the Lubmin II entry point are both interconnectors. However, Decision BK7-19-108 of 20 May 2020 granted a derogation for this interconnector in accordance with section 28b EnWG in conjunction with Article 49a of Directive 2009/73/EC. In analogous application of Article 30 of Regulation (EU) No 715/2009, no application of Regulation (EU) No 715/2009 and the network codes based on it is appropriate for the duration of and for the substantive scope of the derogation decision. The Lubmin II point was also previously classed as an entry point from a third country (see Article 2(1) sentence 2 of Regulation (EU) 2017/459) and could in future be an interconnection point depending on future market area allocations. In any case, however, the Nord Stream 2 pipeline system is not in operation nor will capacity marketing for it take place at the relevant annual auction in 2021. Moreover, the market demand and associated network expansion measures only relate to the entry side to the single German market area, THE. It is in line with the purpose of the incremental capacity process to allow shippers to express demand for one-sided project planning and network expansion, in this case on the side of the THE market area.

45 The decision was made following appraisal of the aspects of the project application set out in Article 28(1) of Regulation (EU) 2017/459:

1. Article 28(1)(a) of Regulation (EU) 2017/459: all offer levels, reflecting the range of expected demand for incremental capacity at the relevant interconnection points as a result of the processes provided for in Article 27(3) of Regulation (EU) 2017/459 and in Article 26 of Regulation (EU) 2017/459 (see **3.1**);
2. Article 28(1)(b) of Regulation (EU) 2017/459: the supplementary rules and conditions related to the project (see **3.2**);
3. Article 28(1)(c) of Regulation (EU) 2017/459: the timelines for the project, including any changes since the consultation, and measures to prevent delays and minimise the impact of delays (see **3.3**);
4. Article 28(1)(d) of Regulation (EU) 2017/459: the parameters of the economic test defined in Article 22(1) of Regulation (EU) 2017/459 (see **3.4**);
5. Article 28(1)(e) of Regulation (EU) 2017/459: information as to whether it is necessary to extend the marketing period pursuant to Article 30 of Regulation (EU) 2017/459 (see **3.5**);

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[2] Article 3 of Regulation (EU) 2017/459 in conjunction with Article 2 point 17 of Directive 2009/73/EC in the version amended by *Directive (EU) 2019/692 of the European Parliament and of the Council of 17 April 2019 amending Directive 2009/73/EC concerning common rules for the internal market in natural gas*

6. Article 28(1)(f) of Regulation (EU) 2017/459: where necessary, a proposed alternative allocation mechanism including its justification (see **3.6**);

7. Article 28(1)(g) of Regulation (EU) 2017/459: where a fixed price approach is followed for the incremental capacity project, the elements as described in Article 24(b) of Regulation (EU) 2017/460 (see **3.7**).

46 In its decision the ruling chamber also took account of the objectives and purpose of the incremental capacity process and the relevant consideration requirements (see **3.8**).

3.1. Offer level

47 In accordance with Article 28(2) of Regulation (EU) 2017/459, it was not possible to approve the offer level originally submitted by the applicants in the project application (Annex 1 of this Decision) and an application to this effect had to be rejected. Instead, the offer level pursuant to operative part 1(a), derived from Annex 2 of this Decision, has been approved. This version meets regulatory requirements and reflects the range of expected demand for incremental capacity (see **3.1.2.**).

48 "Offer level" means the sum of the available existing capacity and the incremental capacity from a possible network expansion for an interconnection point (Article 3 point 5 of Regulation (EU) 2017/459). TSOs can develop various expansion scenarios with varying amounts of incremental capacity within one project. In this case, only one offer level was made. Pursuant to the allocation method laid down in Article 8(2) sentences 2 and 4, Article 17(20) in conjunction with Article 22(3), Article 29(1) and (2) of Regulation (EU) 2017/459, auctions for existing capacity and the offer level are held at the same time. Following the conclusion of the auctions, the offer level is subjected to an economic test in which the present values of binding commitments of network users are compared with the costs of the expansion plan. Capacity may only be allocated in accordance with the auction result for the offer level if the outcome of the economic test is positive on both sides of the interconnection point. If not, the auction of this offer level is not legally binding, which means that capacity allocation and the corresponding network expansion must not take place (Article 22(3) sentence 3 of Regulation (EU) 2017/459). The offer level submitted meets these requirements.

3.1.1. Offer level: determining the capacity products to be offered

49 The offer level meets legal requirements in the version approved here (Annex 2 of this Decision). As explained in section **3.**, it is not possible to determine offer levels for bundled capacity products in accordance with Article 29(1) of Regulation (EU) 2017/459 for the planned, one-sided capacity upgrade. The provisions of Article 11(6) of Regulation (EU) 2017/459 can also only be applied to a limited extent:

[Capacity to be offered] = A – B – C + D + E – F

Where:

A	is the transmission system operator's technical capacity for each of the standard capacity products;
B	for annual yearly auctions offering capacity for the next 5 years, is the amount of technical capacity (A) set aside in accordance with Article 8(7)(b); for annual yearly auctions for capacity beyond the first 5 years, is the amount of technical capacity (A) set aside in accordance with Article 8(7)(a);
C	is the previously sold technical capacity, adjusted by the capacity which is re-offered in accordance with applicable congestion management procedures;
D	is additional capacity, for such year, if any;
E	is the incremental capacity for such year included in a respective offer level, if any;
F	is the amount of incremental capacity (E), if any, set aside in accordance with Article 8(8) and (9).

50 The project application contains a single offer level and therefore one single expansion version. In contrast to the original version in the application, the offer level does not include any DZK. The approval deviates from the application in this respect due to the creation of DZK via the German Gas NDP 2020-2030, separate to the project application. In coordination with the applicants, a different offer level was developed exclusively for FZK entry capacity.

51 The total existing technical FZK on the entry side corresponds to the figures given in column **A** of **table 4** below. The incremental FZK amounts to 7,800,000 kWh/h (column **E**). The existing technical DZK entry capacity is not included. **Table 4** shows the combined provision of both the interconnection points shown in I, Greifswald and Lubmin II. Marketing of the offer level for each point and network operator will take place for the two interconnection points in the annual auctions. A more detailed list of the offer level broken down by booking point may be found in Annex 2 of this Decision.

	Art 11(6) NC CAM **A**	Art 11(6) NC CAM **B**	Art 11(6) NC CAM **C**	Art 11(6) NC CAM **D**	Art 11(6) NC CAM **E**	Art 11(6) NC CAM **F**	offer level
	technical capacity	capacity set aside	marketed capacity	additional capacity	incremental capacity	incremental capacity set aside	total capacity to be offered
GY 2027-2028	8.526.110 kWh/h	1.705.222 kWh/h	5.745.688 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	7.315.200 kWh/h
GY 2028-2029	8.526.110 kWh/h	1.705.222 kWh/h	5.745.688 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	7.315.200 kWh/h
GY 2029-2030	8.526.110 kWh/h	1.705.222 kWh/h	5.745.688 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	7.315.200 kWh/h
GY 2030-2031	8.526.110 kWh/h	1.705.222 kWh/h	5.745.688 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	7.315.200 kWh/h
GY 2031-2032	8.526.110 kWh/h	1.705.222 kWh/h	4.285.688 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	8.775.200 kWh/h
GY 2032-2033	8.500.701 kWh/h	1.700.140 kWh/h	1.431.000 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	11.609.561 kWh/h
GY 2033-2034	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2034-2035	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2035-2036	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2036-2037	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2037-2038	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2038-2039	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2039-2040	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2040-2041	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h
GY 2041-2042	8.500.701 kWh/h	1.700.140 kWh/h	0 kWh/h	0 kWh/h	7.800.000 kWh/h	1.560.000 kWh/h	13.040.561 kWh/h

Table 4: Determination of the offer level

52 In the Decision adjusting capacity rules in the gas sector (Decision of 14 August 2015, BK7-15-001), the Bundesnetzagentur's Ruling Chamber 7 determined the share of incremental capacity to be set aside on the German sides of all interconnection points in accordance with Article 8(9) of Regulation (EU) 2017/459 to be 20%. In analogous application of Article 8(7)(a) of Regulation (EU) 2017/459, one half of this capacity must be offered no earlier than in the annual yearly capacity auction held in accordance with the auction calendar during the fifth gas year preceding the start of the relevant gas year. In accordance with Article 8(7)(b) of Regulation (EU) 2017/459, the other half must be offered no earlier than the annual quarterly capacity auction. Owing to the one-sided project planning, these are the only relevant requirements. The parts to be set aside are correctly set out in columns **B** and **F**. As the planned start of operational use is not until the gas year 2027-2028, no capacity is affected by Article 8(7)(a) of Regulation (EU) 2017/459 in the annual auction on 5 July 2021.

53 The offer level has been established in due consideration of the permitted marketing period. Pursuant to Article 11(3) sentence 1 of Regulation (EU) 2017/459, when offering incremental capacity, the offer levels for yearly capacity may cover a maximum of 15 years after the start of operational use. The timeline of the project application envisages gas year 2027-2028 for commissioning. Consequently, the capacity products may be offered for the period up to and including the 2041-2042 gas year.

3.1.2. Offer level – reflecting market demand

54 The offer level reflects the range of expected demand for incremental capacity.

55 In accordance with Article 28(1)(a) of Regulation (EU) 2017/459, the offer levels coordinated in a project application must accommodate the expected demand determined in the process provided for in Article 26 and Article 27(3) of Regulation (EU) 2017/459. This will ensure that the project enables a defined network expansion based on specific requests from network users. Technical feasibility forms a barrier.

56 The amounts of capacity listed in **table 4** fulfil these requirements because the non-binding demand indication for FZK, shown in **table 3**, can be fully covered. The ruling chamber takes the view that it is not relevant whether the entire capacity can already be contracted at the time of the auction for yearly capacity on 5 July 2021. Rather, it is sufficient if the transport capacity requested by network users is made technically available for the respective gas years. Shares of capacity that are to be set aside as per the above principles, therefore, do not prevent the demand being reflected.

57 The ruling chamber considers it logical that the demand for 4,100,000 kWh/h of DZK shown in **table 3** is no longer included in the offer level shown in **table 4**. The background to this is the binding nature of the measures for the security of supply in the Netherlands set out in the Gas NDP 2020-2030, which came into effect when the Bundesnetzagentur did not require any

amendments to this aspect in its decision of 19 March 2021 (8615-NEP Gas 2020 – 2030). Corresponding DZK entry capacity will be created in the course of the implementation of the Gas NDP 2020-2030, independently of the outcome of this project application. It may be assumed that there is no market demand in addition to this DZK entry capacity, because the transport limit of the adjacent Nord Stream 2 pipeline will be reached with the measures in the Gas NDP and the FZK entry capacity planned here, according to the applicants.

3.2. Supplementary rules and conditions

58 In accordance with Article 28(2) of Regulation (EU) 2017/459 and taking into account the amendment pursuant to operative part 1(b), the approval was also granted with regard to the planned use of project-specific "Supplementary rules and conditions for incremental capacity" (SRC), which are compatible with regulatory requirements in the form amended by operative part 1(b). Among other things, there is to be no use of section 4 SRC ("Conclusion of contract under the alternative allocation mechanism").

59 According to Article 28(1)(b) of Regulation (EU) 2017/459, the applicants must include with the project application the general rules and conditions "*[...] that a network user must accept to participate and access capacity in the binding capacity allocation phase of the incremental capacity process, including any collaterals to be provided by network users and how possible delays in the provision of capacity or the event of a disruption to the project are dealt with contractually [...]*".

60 The benchmark here is essentially the appropriateness and non-discrimination of the network access conditions, see section 21(1) EnWG. Specific appropriateness criteria are to be found in recital 11 and Articles 19 and 28 of Regulation (EU) 2017/459. These set out that the interests of applicants, the interests of network users demanding network expansion and ultimately the interests of network users as a whole and "captive" customers must be balanced.

61 In line with the aim of the provision, the ruling chamber limited its assessment to the SRCs, ie to deviations from and additions to the usual, general rules and conditions. Otherwise, the project would be a coincidental reason to examine all network access conditions. Therefore, those rules and conditions that must be accepted as a matter of course for the standard offer of existing capacity are not considered; this refers in particular to Annex 1 of the *Cooperation agreement between the operators of gas supply networks in Germany*.

62 The ruling chamber considers sections 3 and 5 SRC to be relevant. Taking account of the amendments pursuant to operative part 1(b), they are compatible with regulatory requirements and seem to be appropriate in line with the standards mentioned above. Both section 3 and section 5 SRC strengthen the binding effect of the transport contracts. They thus serve not only the interests of the network operator but also the aim stated in recital 11 of Regulation (EU) 2017/459, that steps should be taken to avoid captive customers being exposed to the

economic risks of the project. This risk exists in principle because the participants in the capacity allocation phase decide on the implementation of the project, and thus the investments of the TSO, with their bookings. If payment obligations were to occur later, captive customers would have to bear the costs of expansion by paying higher network charges. Sections 3 and 5 SRC thus provide a link to the protection of other network users: by placing bookings, shippers oblige the TSO to expand the network, but in return the shippers also bear the economic risks of implementing the project. Cases that are the fault of the TSO form the limit for the assumption of risk (for delays, see section 5 para 4 sentence 4 SRC).

63 Section 3 para 3 SRC relates to the exceptional right of termination in the event of increases in the specific capacity charge. According to section 3 para 3 SRC in conjunction with Annex I SRC, restricting the provision of section 25 GRC (Annex 1 of the Cooperation agreement), it is only possible to terminate for performance periods in which the specific capacity charge exceeds the designated maximum charge. This provision seems appropriate. It benefits captive customers by preventing charges that exceed the limit temporarily from leading to a cessation of payment obligations for periods that are actually unaffected.

64 However, measured against the aim of not burdening other shippers and captive customers with the risks of the project, (see recital 11 of Regulation (EU) 2017/459), the ruling chamber considers the provisions determining exceptional rights of termination in section 3 para 3 sentence 1 SRC in conjunction with Annex I SRC insufficient. The project application is therefore approved with the amendment that the clauses given in operative part 1(b) are used.

65 Pursuant to section 25(1) and (3) GRC (Annex 1 of the Cooperation agreement), a shipper is entitled to terminate if the charges to be paid – including but not limited to the specific capacity charge and price mark-ups from auctions – increase more strongly than the consumer price index for a given year. The connecting factor is the change in the balance of the contract to the disadvantage of the shipper, which is to be measured on the totality of charges owed.

66 Under the provision submitted by the applicants, by contrast, a transport contract could be terminated if the threshold of the permissible increase was exceeded with regard to just a part of the consideration owed, namely the capacity charge formed in accordance with regulatory requirements. Any auction or minimum premiums would be factored into the determination of the maximum charge without adjusting for inflation. In other words, this provision would allow termination even if the increase in the totality of charges owed was smaller than the increase in the relevant consumer price index.

67 The submitted provision, even though it limits the right of termination to the specific period in which the threshold is exceeded, thus seems in part to deviate from the requirement for the balance of the whole contract to be disturbed (section 25 GRC, Annex 1 of the Cooperation agreement). In light of the interests of third parties, the ruling chamber does not consider this to be appropriate.

While it is true that increases in the specific capacity charge may not be (solely) caused by the project, the fact that, in the event of termination, not only the specific capacity charge but also any mandatory minimum premium would no longer be collected certainly is.

68 The clause to be used in accordance with operative part 1(b) therefore relates the maximum charge necessary for a termination to the charges including any mandatory minimum premium, multiplied by the change in the consumer price index for the performance period from the CPI for 2022. The statements of applicants 2, 3, 4 and 5 of 15 April 2021 do not contradict this approach, either. There may indeed be a risk that the provisions on the exceptional right of termination will not be as well accepted, but the ruling chamber considers that this risk would rather lead to shippers possibly deciding not to make a booking in the incremental capacity auction, since the SRCs and the provisions on the exception right of termination are published in advance. Even if the clause were to be contested in court subsequently, as applicant 2 fears, the ruling chamber continues to consider the determined wording appropriate on balance, as it provides better protection for the interests of third parties (users in general) under the particular conditions of the incremental capacity projects by not allowing the possibility of termination and therefore payment exemption (regulatory charge including mandatory minimum premium determined in accordance with regulatory requirements) from the provision to occur too early. However, the ruling chamber agreed to the applicants' identical suggestion of using a clearer wording of section 3 para 3 sentence 1 SRC. The determined wording is no longer based on the "specific capacity charge" – which is unclear whether it includes the mandatory minimum premium – but rather uses solely the wording of Annex 1 SRC. The maximum charge (for exercising the exceptional right of termination) is determined by the charge including any mandatory minimum premium, multiplied by the change in the consumer price index.

69 Section 5 paras 3 and 4 SRC mention other deviations: they contain provisions on the legal consequences of delays or disruptions to the project, as set out in Article 28(1)(b) of Regulation (EU) 2017/459. Pursuant to these, network users commit to any future bookings if delays occur in the provision of capacity that are not the fault of the TSO. In addition, section 5 para 4 SRC rules out that arrangements for the offer of capacity at upstream or downstream network points affect the rights and obligations arising from the transport contract relevant here. The other sides of interconnection points at which bundled marketing will take place in accordance with Article 19(1) and (2) of Regulation (EU) 2017/459 are also regarded as being up/downstream.

70 Ultimately, any booking obligations in accordance with section 5 para 3 SRC may not lead to the inappropriate hoarding of capacity in a way that restricts the market (section 16(3) and (4) GasNZV). Although the shipper may have an obligation regarding bookings that are not necessary, a booking from a third party also allows this obligation to lapse (section 5 para 3 sentence 5 SRC). It is therefore not necessary to actually and finally acquire transport rights. Secondary trading is still an option, too.

71 Ultimately, section 5 para 4 SRC does not prevent approval either. Insofar as, in accordance with it, the arrangements for the offer of capacity at upstream or downstream network points should not affect the relevant transport contract, this is compatible with the principle of the entry-exit system.

72 Pursuant to operative part 1(b), there is to be no use of section 4 SRC ("Conclusion of contract under the alternative allocation mechanism"). The project application is to be implemented without an alternative allocation mechanism, see section **3.6** of this Decision.

3.3. Project timeline

73 The timeline submitted with the project application has been approved. According to it, all technical measures are to go into operation in October 2027 and the requested capacity is to be provided from gas year 2027-2028.

74 In accordance with Article 28(1)(c) Regulation (EU) 2017/459, timelines of the incremental capacity project, including any changes since the consultation described in Article 27(3) of Regulation (EU) 2017/459, and measures to prevent delays and minimise the impact of delays are subject to approval.

75 The planning and construction time of the necessary investments to provide capacity at the Lubmin II and Greifswald interconnection points is estimated to last from the time of the successful auction in 2021 until the planned commissioning in 2027. This time scale for the planning and implementation of the necessary measures is considered realistic based on experience of implementing measures of this type and size as part of the ongoing planning and approval procedures for the Gas NDP.

3.4. Information and parameters for the economic test

76 Pursuant to Article 25(1) and Article 28(1)(d) and (2) of Regulation (EU) 2017/459, the parameters for the present values, estimated reference price, f-factor and mandatory minimum premium submitted with the project application are to be approved by the regulatory authority. The values are used in the economic test, which is carried out within two business days of the closing of the bidding round by the Bundesnetzagentur in accordance with Article 11(10) of Regulation (EU) 2017/459 (see Decision of 19 July 2017, BK9-17/609). An economic test is carried out for the offer level applied for (Article 22(3) sentence 1 of Regulation (EU) 2017/459).

77 In accordance with Article 22(3) sentence 1 of Regulation (EU) 2017/459, a project will only be implemented if the economic test of an offer level leads to a positive outcome on both sides of the interconnection point. However, in this case, owing to the non-applicability of the provisions of Regulation (EU) 2017/459 in Russia (see 3, Substantive requirements for approval), it is sufficient for the project to be pursued if only the economic test of the offer level on the German entry side of the interconnection point leads to a positive outcome. Pursuant to Article 22(2)(a) of Regulation

(EU) 2017/459, the outcome of the test is positive if the present value of binding commitments of network users for contracting capacity (to put it simply, the additional revenues within the auctions for incremental capacity) is at least equal to the share of the present value of the estimated increase in the allowed or target revenue of the transmission system operators defined by the f-factor.

$$\sum_{j=1}^{T}\left[\frac{1}{(1+i)^{j}} \times \left\{\left(RP_j + AP_j + MP_j\right) \times NK_j + \left(AP_j + MP_j\right) \times verf.BK_j^{|NK>0}\right\}\right] \geq \sum_{j=1}^{H}\frac{1}{(1+i)^{j}}\Delta EOG_j \times f$$

Where:	
i	interest rate for determining the present value;
j	index for the respective gas year;
RP_j	reference price for the year j;
AP_j	auction premium in the year of the auction for the year j;
MP_j	mandatory minimum premium according to Article 33(3) of Regulation (EU) 2017/460 for the year j;
NK_j	new capacity in the year j (to calculate the economic test before the auction, enter the new capacities that are expected to be booked depending on the offer level in the auction. After the auction, enter the capacities actually marketed);
$verf.BK_j^{\|NK>0}$	available existing capacity that has been booked together with the new capacity in the auction of the new capacities for the year j; on condition that the new capacity > 0, ie has been booked;
ΔEOG_j	change in revenue cap in the year j;
f	the f-factor to be set in accordance with Article 23 of Regulation (EU) 2017/459;
T	maximum number of years for which the new capacity may be offered;
H	maximum duration of use (depreciation period) of the investment and of the associated revenue cap increase.

78 The Bundesnetzagentur provides a tool on its website for the calculation:

https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/NetzentwicklungundSmartGrid/Gas/IncrementalCapacity/IncrementalCap_node.html

Notes:

https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Energie/Unternehmen_Institutionen/NetzentwicklungUndSmartGrid/Gas/IncrementalCap/Erlaeuterungen_Kalkulationstool.pdf?__blob=publicationFile&v=3

Links as at 23 February2021

79 The aim of the economic test is to ensure the economic viability of the project and it therefore requires that those network users demanding incremental capacity assume the corresponding financial risks associated with their demand (see recital 11 of Regulation (EU) 2017/459). It therefore seems appropriate to leave the financial risks of the existing network infrastructure that are independent of the incremental capacity and its use with network users in general. Even if (some of) the existing network infrastructure can be used for the incremental capacity here,

reducing the need for network expansion, its depreciation or the rates of return for its remaining book values, in particular, would not be used in the economic test.

80 However, it therefore also follows that, within the economic test, only the present value of the estimated increase in the allowed (target) revenue of the transmission system operators is refinanced from the revenue from bookings by network users of capacity from the offer level. There is no cost attribution of existing infrastructure, even if some of it is used to provide the incremental capacity (reducing the need for network expansion). This aspect is to be given due consideration below in the approval of the individual parameters for the economic test, especially the f-factor.

3.4.1. Scenario matrix

81 Pursuant to Article 22(3) Regulation (EU) 2017/459, an incremental capacity project is pursued if the economic test has a positive outcome for at least one offer level. The applicants' project application contains one single offer level for 7.8 GWh/h of incremental capacity. A total of 16 economic tests for the offer level of incremental capacity were submitted in this project application. This approach is appropriate and plausible.

82 Incremental capacity was requested at several market area borders in the 2019-2021 incremental capacity cycle. The demand at other market area borders (entry at the borders with Denmark and Poland, other demand at other Russian entry points) leads in some cases to congestion at the same place in the network as is the case to meet this demand for FZK entry capacity at the Russian-German market area border (RU-THE). It should therefore be noted that the severity of the congestion at one and the same place depends on the amount of incremental capacity at all market area borders. To remove this congestion, therefore, the resulting network expansion of a pipeline will be greater overall (larger diameter and/or longer loop line) if two or more market demand indications lead to a positive economic test than if this only happens at one market area border.

83 The network expansion resulting from the incremental capacity project therefore also depends on which of the market area borders has a positive economic test for incremental capacity. The applicants were therefore correct to examine different scenarios in the technical studies for the 2019-2021 incremental capacity cycle. Each scenario was based on a single, different combination of capacity for which non-binding demand indications had been made for the other market area borders mentioned. This resulted in 31 different possible combinations, which the applicants have represented in the following scenario matrix:

Annex 1: scenario matrix					
Scenario	Denmark	Russia	Greifswald upgrade	Lubmin II upgrade	Poland Mallnow
1	1				
2		1			
3			1		
4				1	
5					1
6	1	1			
7	1		1		
8	1			1	
9	1				1
10		1	1		
11		1		1	
12		1			1
13			1	1	
14			1		1
15				1	1
16	1	1	1		
17	1		1	1	
18	1			1	1
19	1	1		1	
20	1	1			1
21	1		1		1
22		1	1	1	
23		1		1	1
24		1	1		1
25			1	1	1
26	1	1	1	1	
27	1		1	1	1
28	1	1		1	1
29	1	1	1		1
30		1	1	1	1
31	1	1	1	1	1
	1: positive outcome of economic test empty cell: negative outcome of economic test				

Table 5: Scenario matrix

84 The extreme scenarios (scenarios 1- 5) show a positive economic test at only *one* single market area border (successful auction), while scenario 31 shows positive economic tests at *all* market area borders. The scenario matrix also shows that for an individual project, a positive economic test is only possible in 16 potential combinations. Appropriately, therefore, a total of 16 economic tests for the offer level of incremental capacity were submitted.

85 This scenario matrix is relevant below for the allocation of the network expansion measures and their costs/cost attribution to the individual projects.

3.4.2. Present value of the estimated increase in the allowed revenue

86 Taking account of the connections between projects shown in the *scenario matrix* under 3.4.1, the present values of the estimated increase in the allowed or target revenue of the transmission system operator associated with the incremental capacity for each possible booking scenario applied for by the applicants in the original project application of 16 November 2020 have been approved as set out in operative part 1(c) as follows:

Booking scenario (positive economic test)	Present value applied for on 16 Nov 2020	Present value approved under op part 1(c)
Booking scenario 2	€695,533,476	€1,216,408,059
Booking scenario 6	€572,527,079	€994,766,521
Booking scenario 10	€481,471,868	€812,973,118
Booking scenario 11	€481,137,792	€961,263,693
Booking scenario 12	€693,381,101	€1,080,421,952
Booking scenario 16	€453,597,549	€757,856,344
Booking scenario 19	€494,745,162	€900,375,342
Booking scenario 20	€657,323,186	€1,018,573,626
Booking scenario 22	€398,556,412	€688,658,538
Booking scenario 23	€616,379,191	€948,556,416
Booking scenario 24	€605,085,971	€900,814,576
Booking scenario 26	€380,723,625	€643,692,937
Booking scenario 28	€596,064,855	€921,960,369
Booking scenario 29	€596,056,112	€887,208,333
Booking scenario 30	€578,741,297	€867,589,180
Booking scenario 31	€572,739,665	€856,024,419

87 In accordance with Article 22(1)(b) and Article 28(2) of Regulation (EU) 2017/459, the present value applied for of the estimated increase in the allowed or target revenue of the transmission system operator associated with the incremental capacity included in the respective offer level is to be approved.

88 Because some of the expansion plans are shared between several incremental capacity projects, the amount of the present values of the estimated increase in the allowed revenue fluctuates depending on which booking scenario covering several projects or which combination of positive tests emerges following the auction for incremental capacity (see 3.4.1). The individual present value given above applies to each booking scenario (combination of positive economic tests of one or more projects). The different amounts of the present value have been calculated appropriately and plausibly.

3.4.2.1 Setting the investment costs

89 In the project application, the applicants have determined investment costs for the network expansion measures that they have found to be necessary based on planned cost rates from the

draft Gas NDP 2020-2030. The Gas NDP 2020-2030 includes planned cost rates for natural gas compressors, natural gas transmission lines and gas pressure regulating installations. The planned cost rates vary according to the technical parameters (sizing) of the expansion measures. According to the applicants, significant expansion measures must be implemented at different places in the existing network in order to provide the incremental capacity. The basis for determining the expansion measures necessary was essentially the infrastructure included in the draft document for the Gas NDP 2020-2030, including the network expansion measures resulting from the "basic variant" modelling. The expansion measures that are already being initiated through the Gas NDP 2020-2030 process were therefore not taken into consideration for the provision of incremental capacity but instead were regarded as being available, rather like the existing network. Consequently, the costs for the part of the expansion measures that are already included in the NDP do not have to be borne by the network users requesting incremental capacity. This basic approach to determining the investment costs is appropriate and plausible.

Determination of investment costs for each scenario

90 The transmission system operators have determined the network expansion requirements and the network expansion measures for each of the 16 scenarios relevant to this process. In determining the expansion requirements, the TSOs came to the conclusion that, in the event of a positive economic test for the incremental capacity requested, no additional expansion is needed in some sections of the network infrastructure to provide the requested capacity. For other sections of the infrastructure, expansion measures already included in the NDP have to be enlarged and in still other sections additional infrastructure has to be built.

91 As explained in section 3.4.1 *Scenario matrix*, the simultaneous requests for incremental capacity at different market area borders will result in congestion at the same sections of the network, which may merely be more severe. To resolve this, the network might have to be upgraded to a greater extent than would be necessary if only this project were to be implemented. On the other hand, there will also be synergy effects, since the expansion costs of the larger expansion measure can be appropriately distributed between two or more incremental capacity projects.

92 For the distribution of costs for the individual expansion measures, the applicants initially analysed for which projects the expansion measure was needed. This is different for different sections of the network. For example, the expansion along the section "NEL-East" is not necessary for incremental entry capacity coming from Denmark because these volumes will only be transported from the section "NEL-West". But the NEL-East section expansion is necessary both for this project and for the project for incremental entry capacity coming from Poland. Accordingly, the costs for the expansion measure on the NEL-East section were only divided between those two projects, assuming a positive economic test for each of them. The distribution is carried out proportionally depending on the need for expansion for the specific project in this network section.

By contrast, the expansion along the "MIDAL-South" section is needed for all projects, so these costs were shared between all projects, assuming they had a positive economic test. The allocation to the individual projects was carried out as a ratio of the project-specific incremental transport capacity to the total incremental transport capacity for all projects for which the network section would have to be expanded. This approach to the cost allocation is appropriate and plausible.

Determination of investment costs for each network expansion measure

93 As explained above, in the project application, the applicants have determined the investment costs for the individual network expansion measures based on planned cost rates from the draft Gas NDP 2020-2030. The Gas NDP includes planned cost rates for natural gas compressors, natural gas transmission lines and gas pressure regulating installations. The planned cost rates vary according to the technical parameters (sizing) of the expansion measures.

94 In this process, the applicants have clearly shown how the investment costs for the individual expansion measures are derived based on the planned cost rates of the Gas NDP. The ruling chamber considers it generally suitable to take the planned cost rates from the NDP as a basis. The planned cost rates represent average/usual cost estimates and are objectively understandable for third parties as well. In this case, in particular, it is suitable to take an average because there are multiple expansion measures involved. It will lead to an average, appropriate result, even if individual measures turn out to be somewhat more or less expensive. In addition to the planned cost rate, inflation of 1% was assumed up to the year of commissioning the expansion measure. The ruling chamber is of the view that using the planned cost rates of the Gas NDP plus inflation up to the time of commissioning is appropriate.

95 For individual expansion measures, the measures already included in the Gas NDP 2020-2030 will have to be enlarged. To determine the total investment costs relevant to both the Gas NDP 2020-2030 and the incremental capacity project, the applicants first calculated the costs of the larger expansion measure based on the planned cost rates of the Gas NDP. It then deducted the costs given in the NDP from the sum determined, taking the remaining amount as its estimate for the investment costs of this expansion measure. However, in several cases, the part of the projects related to the Gas NDP 2020-2030 were not in fact based on the planned cost rates but instead on individual, lower cost estimates. In these cases, the applicants' approach leads to much higher rates for the part of the expansion measures related to the incremental capacity project. The applicants only justified this approach by stating that, if the expansion measure in the Gas NDP was not implemented or confirmed, the internal budget would be insufficient. It did not provide a justification for the content of the different cost estimates.

96 The ruling chamber does not consider this method appropriate. The expansion measures mentioned were confirmed by the Bundesnetzagentur with the request for amendment to the

Gas NDP 2020-2030 and are thus to be implemented by the TSOs, regardless of the outcome of this process. Even if, hypothetically, expansion measures relevant here were not implemented as part of the network development planning process, the result would be that the expansion measures needed for this project would have to be enlarged. The investment costs for these enlarged expansion measures would then have to be determined on the basis of the planned cost rates of the Gas NDP. Despite being requested to do so, the applicants have not shown plausibly that the planned cost rates of the Gas NDP were exceptionally, due to special circumstances, too low for particular expansion measures. On the contrary, in their overall consideration of the individual expansion measures (expansion as part of the Gas NDP and this project), the applicants themselves calculated the investment costs on the basis of the planned cost rates in the Gas NDP. There is therefore no plausible justification for a cost estimate going beyond the planned cost rate from the Gas NDP.

97 The ruling chamber therefore considers it appropriate to base the investment costs needed for the part of the incremental capacity on the planned cost rates of the NDP, even for enlarged NDP expansion measures. The investment costs are to be calculated in line with the NDP planned cost rates for the enlarging of the measures.

3.4.2.2 Compressor energy costs

98 The applicants estimated annual compressor energy costs in the project application. To calculate the compressor energy costs incurred by the use of the incremental capacity, the applicants used a transport path up to the transfer of gas volumes at the border inside Germany between the market areas of GASPOOL and NetConnect Germany. The incremental capacity is freely allocable capacity in the future single German market area, THE. The approach of determining the transport path for this freely allocable capacity up to the "middle" of the new German market area seems plausible.

99 The applicants determined the additional use of existing compressors or those that need to be newly installed for the additional transports along this transport path on the basis of the incremental capacity. The compressor use calculated in this way was appropriately converted to amounts of compressor energy and multiplied by the usual forecasts for energy and CO_2 prices (including energy tax). There are no objections to this basic approach to the calculation of compressor energy costs, including taking account of the higher usage of existing compressor installations for additional transports on the basis of the incremental capacity.

100 As explained with regard to the determination of the investment costs, the appropriate amount of estimated costs partly depends on the outcome of requests for incremental capacity at other market area borders (and whether these projects have a positive or negative economic test). The same applies to the determination of compressor energy costs. Therefore, the applicants determined the total additional compressor energy costs for each scenario individually (see 3.4.1)

and then, for scenarios in which there is a positive economic test for more than one market area border, it determined the additional compressor energy costs proportionally for each project based on the additional project-specific usage. This method is essentially appropriate.

101 However, the applicants also allocated compressor energy costs proportionally to the incremental capacity project at the Danish border, which is not appropriate. In a letter of 13 November 2020, the applicants themselves wrote that no additional compressor energy costs would be incurred for the transport of any import volumes from Denmark, even at times of low demand. Future transports from Denmark on the basis of the incremental capacity there would partially or completely replace the (current) export volumes to Denmark. Consequently, while there may be additional volumes of compressor energy needed for transport from the north to the south in the single German market area THE, these will be based on the use of existing capacity or the future use of incremental capacity in other projects, including this one. The transport volumes based on this usage will no longer be exported to Denmark but transported to other exit points located further south in the market area. The additional compressor energy volumes and their costs for the north-south transport must therefore be allocated to the existing capacity or the incremental capacity of the other projects.

102 Even if the incremental entry capacity at the Danish market area border turns the current export flow to Denmark into an import flow to Germany, there will be no compressor energy costs. The applicants themselves wrote on 13 November 2020 that there would be no additional compressor energy costs because the gas coming from Ellund to be transported towards Achim did not have to be compressed owing to the low pressure level, even at times of low demand.

103 The amount of compressor energy costs calculated seems appropriate and plausible to the ruling chamber, but the allocation of the costs to the individual projects, including the project at the Danish market area border, does not seem appropriate. Therefore, the ruling chamber has divided the compressor energy costs estimated by the applicants only between this and the other projects at the Russian market area border and the project at the Polish market area border. In carrying out this allocation, the ruling chamber has essentially followed the approach of the applicants. For each compressor site, the additional compressor energy costs calculated that had to be allocated to multiple projects were distributed according to the ratio of the project-specific incremental transport capacity to the total incremental transport capacity at that compressor site.

104 The applicants' criticism, put forward during the hearing for the draft Decision, of the redistribution of the compressor energy costs carried out by the ruling chamber is not convincing. Only for the determination of the investment costs is the applicants' chosen approach of allocating costs proportionally to this project and other incremental capacity projects related to this one (including the one at the Danish-German border, BK9-20/004) appropriate (see 3.4.2.1 *Determination of investment costs for each scenario/Determination of investment costs for each network expansion measure*), because incremental FZK is not allowed to be implemented to the disadvantage of

existing capacity. When determining the necessary additional network expansion, it is thus always necessary to look at the extreme scenario with the greatest possible north-south transport based on full usage of existing capacity and incremental capacity.

105 However, the applicants fail to recognise that the determination of the annual compressor energy costs – in contrast to the approach to the determination of the necessary network expansion – must be based on a purely physical consideration of the individual gas flows from the individual entry points. This specific approach corresponds in other respects to the basic approach used by the applicants in the determination of the annual compressor energy costs. Using this physical approach, the applicants wrote during the hearing that no additional compressor energy costs are incurred along the section of the DEUDAN pipeline and that physical transport of the stated gas volumes from Denmark to Herchenrode (up to the southern congestion zone, previously NCG) along the section of the MIDAL pipeline will be rather rare. However, the applicants did not calculate these lower transport volumes and assess compressor energy costs for them. If the fact is also taken into account that feed-in of incremental capacity at the Danish-German border will avoid some of the compressor energy costs currently necessary for gas flows being transported in the other direction, from the south to the north, the approach of not allocating any additional compressor energy costs to the project at the Danish-German border seems appropriate and plausible to the ruling chamber. During the hearing, the applicants themselves maintained that the stated gas volumes from Denmark are less than the increased north-south transport along the MIDAL pipeline section. The ruling chamber can only conclude that the higher north-south transport volumes from other entry points must come from the northern congestion zone mentioned by the applicants and, depending on the scenario (see 3.4.1), also from feed-in as part of this project.

106 What is more, in the approach chosen by the applicants, it seems highly implausible that the compressor energy costs determined for booking scenario 1 (implementation only of the project at the Danish-German border, see table 5, scenario matrix), which are €2.1m at the Reckrod compressor site, would be higher than for booking scenarios 6 to 9 (compressor energy costs determined of between €0.8m and €1.3m), for which there would be gas volumes from other projects associated with the project at the Danish-German border as well as from that one. Similarly implausible cost estimates are found for the Rehden compressor site as well, where the compressor energy costs determined for scenario 8 (additional gas volumes from the Lubmin II upgrade project and the project at the Danish-German border, see table 5, scenario matrix) are €775,000, lower than the compressor energy costs of €875,000 determined for scenario 1 (additional gas volumes only from the project at the Danish-German border, see table 5, scenario matrix). This does not support the approach to the distribution of costs used by the applicants, either.

3.4.2.3 Calculation of the present value

107 The calculation of the present value can be understood with the help of the economic viability tool for each scenario. The capital and operating costs incurred each year are calculated on the basis of the investment costs entered for each scenario. The annual capital costs are made up of the imputed depreciation, return on capital employed and imputed trade tax. The annual operating costs incurred are calculated using the operating cost flat rates based on the acquisition/production costs. The calculation of these costs is based on the methodology for determining capital and operating costs from investment measures in accordance with section 23 of the Incentive Regulation Ordinance (ARegV), set out in the Determinations issued by Ruling Chamber 4, BK4-12-656 and BK4-12-656A01. The amendment to the Ruling Chamber 4 Determinations of 15 December 2020 was not taken into account, since by that time the application had already been submitted. The annual compressor energy costs are not covered by the operating cost flat rates and are thus estimated in addition to these with the costs determined for each scenario. The present value results from the discounted annual costs incurred. The year under consideration for the calculation of the present value is the year of the binding capacity demand (2021).

108 Further details on the calculation of the capital and operating costs and the determination of the present value may be found on the Bundesnetzagentur website (https://www.bundesnetzagentur.de/SharedDocs/Downloads/DE/Sachgebiete/Energie/Unternehmen_Institutionen/NetzentwicklungUndSmartGrid/Gas/IncrementalCap/Erlaeuterungen_Kalkulationstool.pdf?__blob=publicationFile&v=3).

3.4.3. Estimated reference price

109 The estimated reference price of €3.73/(kWh/h)/a requested by the applicants has been approved.

110 Pursuant to Article 25(1)(a) and Article 28(2) of Regulation (EU) 2017/459, the reference price estimated for the time horizon of the initial offer of incremental capacity is to be approved. The ruling chamber merely checks whether the estimated reference price submitted by the applicants is plausible. Should this not be the case, the ruling chamber sets a different estimated reference price to the one applied for in accordance with Article 25(1) of Regulation (EU) 2017/459.

111 The estimated reference price has been calculated appropriately and plausibly in the amount approved. The reference price is based on the figure forecast for 2023 in Annex 5 of Determination BK9-19/610 (REGENT 2021).

3.4.4. f-factor

112 Taking account of the connections between projects shown in the *scenario matrix* under 3.4.1, the f-factors applied for by the applicants in the original project application of 16 November 2020 have been approved for each possible booking scenario as set out in operative part 1(d) as follows:

Booking scenario (positive economic test)	f-factor applied for on 16 Nov 2020	f-factor approved under op part 1(d)
Booking scenario 2	0.61	0.97
Booking scenario 6	0.53	0.96
Booking scenario 10	0.52	0.95
Booking scenario 11	0.52	0.96
Booking scenario 12	0.61	0.97
Booking scenario 16	0.52	0.95
Booking scenario 19	0.52	0.96
Booking scenario 20	0.59	0.96
Booking scenario 22	0.52	0.95
Booking scenario 23	0.56	0.96
Booking scenario 24	0.55	0.96
Booking scenario 26	0.52	0.94
Booking scenario 28	0.55	0.96
Booking scenario 29	0.55	0.96
Booking scenario 30	0.53	0.96
Booking scenario 31	0.53	0.96

113 Pursuant to Article 22(1)(c) and Article 28(2) of Regulation (EU) 2017/459, the f-factor applied for is to be approved. The ruling chamber checks whether the f-factor applied for by the applicants has been calculated plausibly. Should this not be the case, the ruling chamber sets a different f-factor to the one applied for in accordance with Article 23(1) of Regulation (EU) 2017/459.

114 The level of the f-factor depends in particular on the assumptions made pursuant to Article 23(1)(a) to (d) of Regulation (EU) 2017/459 and on the amount of the present value of the estimated increase in the allowed or target revenue of the transmission system operator associated with the incremental capacity. Because some of the expansion plans are shared between several incremental capacity projects, the amount of the present values of the estimated increase in the allowed revenue fluctuates depending on which booking scenario covering several projects or which combination of positive tests emerges following the auction for incremental capacity (see 3.4.1, *Scenario matrix*). Therefore there is an individual f-factor for each booking scenario (ie for each combination of positive economic tests), even though the assumptions made pursuant to Article 23(1)(a) to (d) of Regulation (EU) 2017/459 remain the same.

115 The f-factors have been calculated appropriately and plausibly in the amounts approved and given above. In particular, the circumstances to be taken into consideration pursuant to Article 23(1)(a) to (d) of Regulation (EU) 2017/459 were appropriately weighed up.

Calculation of the f-factor

116 The f-factor takes account of the circumstances mentioned in Article 23(1)(a) to (d) of Regulation (EU) 2017/459, which are saved in the economic feasibility tool. The f-factor is the share of the

present value of the estimated increase in the allowed revenue that has to be covered by the revenue from binding bookings. The level of the f-factor is a ratio of the revenue resulting from the binding booking of incremental capacity to the total revenue from incremental capacity forecast for the process (including revenue from appropriately derived, forecast bookings apart from the binding bookings). This approach ensures that the binding bookings cover the share of the present value of the increase in allowed revenue that is not covered by forecast revenue outside the auction of binding bookings. This avoids an inappropriate burden on other network users.

117 For the calculation of the f-factor, the ruling chamber considers it appropriate to take the approach of determining the revenue from binding bookings based on the marketing of all the capacity included in the offer level (taking account of a reserve quota of 20%). The f-factor calculated in this way means that shippers requesting incremental capacity and wishing to have the network expanded for this purpose also have to bear a correspondingly high share of the present value of the increase in allowed revenue so that the economic test is positive. If this approach were not taken, the f-factor calculated would be much lower – in extreme cases, almost zero. The increase in the allowed revenue would not be borne by the shippers wanting the additional network expansion but rather passed on to the other network users. Consequently, all risks from the non-occurrence of forecast bookings within the capacity set aside and after the binding booking period of 15 years would be borne by all network users. This would be in clear contradiction of recital 11 of Regulation (EU) 2017/459, according to which those network users demanding incremental capacity must assume the risks associated with their demand.

Booking assumptions for capacity set aside, reduction of the f-factor

118 Pursuant to Article 23(1)(a) of Regulation (EU) 2017/459, the f-factor can be reduced due to the justified booking assumptions for incremental capacity set aside. The applicants assume that the capacity set aside will be fully booked for the first 15 years. The ruling chamber does not consider this assumption appropriate. Currently, applicant 2 offers a significant amount of about 8.5 GWh/h of existing FZK at the Greifswald interconnection point and applicant 3 offers the same at the Lubmin II interconnection point. An analysis of the past and current booking situation of this existing capacity shows that around 75% of the FZK is booked. Unlike at the Mallnow interconnection point, for example, the FZK products are not booked by shippers in preference to DZK products. The ruling chamber therefore considers the current booking forecast of capacity set aside to be uncertain and implausible.

Booking assumptions from the 16th year, further reduction in the f-factor

119 Pursuant to Article 23(1)(c) and (d) of Regulation (EU) 2017/459, forecast future bookings can lead to a further reduction in the f-factor from the 16th year on. The applicants anticipate significant future bookings for this period, too. From the 16th year (GY 2042-2043) until GY 2052-2053, the applicants expect bookings of 80% of the incremental capacity. From GY 2053-2054 up to the end

of operational use in GY 2071-2072, the applicants expect a booking level of 65%. They justify their booking assumptions with the great importance of the infrastructure to the energy market and to a future hydrogen market.

120 However, it is not clear to the ruling chamber that the booking forecasts used by the applicants from GY 2042-2043 onwards are likely enough to be taken into consideration in the economic test. A goal of being fully climate neutral by 2050 has been set, both in Germany and in Europe. The intention is for full climate neutrality to be achieved gradually using annual carbon budgets that must be complied with each year. Accordingly, the use of fossil fuels will gradually be reduced to almost nothing. Given these climate targets, the ruling chamber considers it appropriate that the booking forecasts from GY 2042-2043 onwards appropriately reflect this aspect as regards the great likelihood of the booking taking place. The ruling chamber therefore views it necessary to take account of a progressive reduction in the booking forecasts as of GY 2042-2043. The ruling chamber considers a reduction of 10% per annum appropriate; no capacity forecast is appropriate from GY 2050-2051 onwards for the same reasons. The ruling chamber considers an assumption of 75% appropriate for GY 2042-2043 on the basis of the analysis of the past and current bookings of existing FZK.

121 The assumption of a future use of the gas network infrastructure under consideration here for the purposes of hydrogen transport as of GY 2050-2051 does not justify the assumption of such firm booking forecasts either, in the view of the ruling chamber. For one thing, the new network infrastructure will not form a cohesive entity but is rather a disconnected, incomplete series of measures to upgrade the network that only enable transport in conjunction with the existing network. It is thus already highly doubtful whether hydrogen can be transported through these unlinked network parts. For another, neither the amount of future bookings for hydrogen transport nor the identification of those parts of the network that might be converted into a future hydrogen network are foreseeable with certainty at this time. Especially given this high level of booking uncertainty, the ruling chamber considers that it is not acceptable for the network users demanding capacity to no longer bear the risks associated with their demand themselves but rather for the investment risk to be imposed on the captive natural gas customers as part of this project application.

122 During the hearing, the applicants did not put forward any further arguments about a secure future booking forecast to back up the vague forecast of probability already included in the application. They did not refute the risks mentioned above either. According to the explanations of the applicants in the hearing, there could be a joint European regulation of natural gas and hydrogen in future, but even if this were not the case, the applicants view it as likely that the interconnection point to be created, and thus also the natural gas infrastructure to be expanded, in this project would become part of a future hydrogen infrastructure. The applicants again provided no evidence or further justification for these assertions. Given the fact that the time in question is far in the

future (30 years from today) and the related major uncertainties as regards the booking forecasts and the lack of clarity as to whether the new interconnection point will actually become part of the hydrogen infrastructure, the ruling chamber regards the two scenarios described by the applicants as mere speculation. It seems just as likely that the new natural gas infrastructure to be built and the new interconnection point will remain part of a separate natural gas infrastructure in future but will be exposed to far lower demand due to the competing hydrogen infrastructure, as applicants 3 and 4 indicate in their statements of 15 April 2021 with regard to the material use of methane in industrial processes. This does not justify transferring the investment costs incurred from the project to the booking customers in this project rather than the initiators of the costs. Moreover, the lack of synchronism criticised by the applicants as regards costs that are taken into account up to the end of the depreciation period (ie partially until 2072) and revenues that are cut off in 2050 is set out in Regulation (EU) 2017/459 for the economic test and is always the case when there is no deviation from the f-factor as 1. While it is possible under Article 23(1) to decide on a lower f-factor than 1, leading to greater synchronism of revenues and costs, this has to be weighed up in the light of recital 11 of Regulation (EU) 2017/459, pursuant to which only "*network users demanding capacity assume the corresponding risks associated with their demand*". The uncertainty about future revenues that cannot be securely forecast may not lead to "*captive customers [...] being exposed to the risk of such investments*".

123 For the reasons given above, booking forecasts of a future use of the infrastructure for hydrogen transport are not to be taken into consideration in *this* process.

No positive externalities, no further reduction in the f-factor

124 It cannot be assumed that there are positive externalities leading to a further reduction in the f-factor.

125 Pursuant to Article 23(1)(b) of Regulation (EU) 2017/459, positive externalities caused by the incremental capacity project on the market and/or the transmission system can lead to an additional reduction in the f-factor.

126 The applicants have not examined any further positive externalities or applied for a further reduction of the f-factor on this basis, nor did consultation respondents comment on this aspect. The ruling chamber shares the approach of the applicants in this regard.

127 In general, when determining the f-factor it must be taken into account that the aim of the economic test is to ensure the economic viability of the project and that therefore those network users demanding incremental capacity assume the corresponding financial risks associated with their demand themselves (see recital 11 of Regulation (EU) 2017/459). Therefore, if there is reliable information about revenue that is not included in the economic test but can be generated at a later time, it can justify a reduction in the f-factor. If, however, these future bookings are relatively uncertain, there is a high risk that network users in general will have to pay for the unachieved

future revenue, rather than the network users that requested the incremental capacity, which contravenes recital 11 of Regulation (EU) 2017/459.

128 It should also be noted that, as part of the economic test, only the costs included in the present value of the estimated increase in the allowed (target) revenue of the transmission system operators are refinanced from the revenue from bookings by network users of capacity from the offer level. There is no cost attribution of existing infrastructure, even if some of it is used to provide the incremental capacity, reducing the need for network expansion, from the booking revenue of the incremental capacity from the offer level. This project application, in particular, takes significant account of infrastructure for incremental capacity that already exists or is to be created by the Gas NDP 2020-2030 with the aim of expanding the network efficiently and reducing the need for network expansion. Along the sections of the NEL, the infrastructure that already exists or is to be created by the expansion measures confirmed in the Gas NDP can provide the FZK products requested here rather than the DZK products resulting from the Gas NDP. However, there is no cost attribution of this infrastructure that already exists or is to be created by the Gas NDP since the economic test only uses the (partially forecast) revenue to cover the new network infrastructure from this process.

129 The reduction of the f-factor beyond that mentioned above would only shift exclusively project-related costs from those network users requesting incremental capacity proportionally to other network users (in general) as well. In light of recital 11 of Regulation (EU) 2017/459, therefore, it was necessary to take a restrictive approach to the determination of the f-factor.

3.4.5. Mandatory minimum premium

130 Taking account of the connections between projects shown in the *scenario matrix* under 3.4.1 *Scenario matrix*, the mandatory minimum premiums applied for by the applicants in the original project application of 16 November 2020 have been approved for each possible booking scenario as set out in operative part 1(e) as follows:

Booking scenario (positive economic test)	Mandatory minimum premium applied for on 16 Nov 2020	Mandatory minimum premium approved under op part 1(e)
Booking scenario 2	€1.66/(kWh/h)/a	€10.79/(kWh/h)/a
Booking scenario 6	€0.14/(kWh/h)/a	€8.32/(kWh/h)/a
Booking scenario 10	€0.00/(kWh/h)/a	€6.31/(kWh/h)/a
Booking scenario 11	€0.00/(kWh/h)/a	€7.96/(kWh/h)/a
Booking scenario 12	€1.63/(kWh/h)/a	€9.34/(kWh/h)/a
Booking scenario 16	€0.00/(kWh/h)/a	€5.74/(kWh/h)/a
Booking scenario 19	€0.00/(kWh/h)/a	€7.32/(kWh/h)/a
Booking scenario 20	€1.19/(kWh/h)/a	€8.57/(kWh/h)/a
Booking scenario 22	€0.00/(kWh/h)/a	€5.02/(kWh/h)/a
Booking scenario 23	€0.68/(kWh/h)/a	€7.83/(kWh/h)/a
Booking scenario 24	€0.54/(kWh/h)/a	€7.33/(kWh/h)/a
Booking scenario 26	€0.00/(kWh/h)/a	€4.48/(kWh/h)/a
Booking scenario 28	€0.43/(kWh/h)/a	€7.55/(kWh/h)/a
Booking scenario 29	€0.43/(kWh/h)/a	€7.18/(kWh/h)/a
Booking scenario 30	€0.22/(kWh/h)/a	€6.98/(kWh/h)/a
Booking scenario 31	€0.14/(kWh/h)/a	€6.86/(kWh/h)/a

131 Pursuant to Article 25(1)(c) and Article 28(2) of Regulation (EU) 2017/459, the mandatory minimum premium, or its range, first offered for the offer level of the incremental capacity is to be approved. The ruling chamber merely checks whether the mandatory minimum premiums, or their ranges, submitted by the applicants are plausible. Should this not be the case, the ruling chamber sets different mandatory minimum premiums or ranges to the ones applied for in accordance with Article 25(1) of Regulation (EU) 2017/459.

132 The mandatory minimum premiums have been calculated appropriately and plausibly in the respective amounts. The calculation of the individual mandatory minimum premiums can be understood with the help of the economic viability tool. If the present value of binding commitments of network users exclusively based on the estimated reference price is too low for the economic test to be positive, a mandatory minimum premium is required. Only the addition of a mandatory minimum premium enables the booking of all capacity offered in the offer level to achieve the necessary present value of binding commitments of network users – at least provided there are no auction premiums in the auction of the offer level caused by (partial) excess demand. Whether there will be (partial) excess demand and thus auction premiums cannot be firmly ascertained before the auction, so this aspect cannot be assumed with certainty. In this project application, there is a need for mandatory minimum premiums to be imposed in the marketing of the incremental capacity, otherwise the outcomes of the economic tests could not be positive.

133 The increases of the individual mandatory minimum premiums result from the following effects: the expansion measures for the creation of DZK products in the Gas NDP 2020-2030 were only

confirmed after the applicants had already submitted the project application and led to significant changes in the cost allocation made by the applicants in the incremental capacity project. Consequently, the ruling chamber approved the respective present values of the estimated increase in the allowed revenue with significantly higher values than had been applied for. In addition, the higher f-factors approved by the ruling chamber than those that had been applied for led to an increase in the individual mandatory minimum premiums.

3.4.6. Present value of binding commitments of network users

134 Taking account of the connections between projects shown in the *scenario matrix* under 3.4.1, the present values of binding commitments of network users applied for by the applicants in the original project application of 16 November 2020 have been approved for each possible booking scenario as set out in operative part 1(f) as follows:

Booking scenario (positive economic test)	Present value applied for on 16 Nov 2020	Present value approved under op part 1(f)
Booking scenario 2	€424,275,421	€1,179,915,818
Booking scenario 6	€303,439,352	€954,975,861
Booking scenario 10	€250,365,372	€772,324,463
Booking scenario 11	€250,191,652	€922,813,146
Booking scenario 12	€422,962,472	€1,048,009,294
Booking scenario 16	€235,870,726	€719,963,527
Booking scenario 19	€257,267,485	€864,360,329
Booking scenario 20	€387,820,680	€977,830,681
Booking scenario 22	€207,249,335	€654,225,612
Booking scenario 23	€345,172,347	€910,614,160
Booking scenario 24	€332,797,285	€864,781,993
Booking scenario 26	€197,976,285	€605,071,361
Booking scenario 28	€327,835,671	€885,081,955
Booking scenario 29	€327,830,862	€851,720,000
Booking scenario 30	€306,732,888	€832,885,613
Booking scenario 31	€303,552,023	€821,783,443

135 In accordance with Article 22(1)(a) of Regulation (EU) 2017/459, the present value of binding commitments of network users for contracting capacity is to be approved.

136 The individual present value given above applies to each booking scenario (combination of positive economic tests of one or more projects). The different amounts of the present value have been calculated appropriately and plausibly. Because some of the expansion plans are shared between several incremental capacity projects, the amount of the present values of the estimated increase in the allowed revenue fluctuates depending on which booking scenario covering several projects or which combination of positive tests emerges following the auction for incremental

capacity (see 3.4.1). The calculation of the present values of binding commitments of network users can be understood with the help of the economic viability tool.

137 The increases of the individual present values result from the following effects: the expansion measures for the creation of DZK products in the Gas NDP 2020-2030 were only confirmed after the applicants had already submitted the project application and led to significant changes in the cost allocation made by the applicants in the incremental capacity project. Consequently, the ruling chamber approved the respective present values of the estimated increase in the allowed revenue with significantly higher values than had been applied for. In addition, the higher f-factors approved by the ruling chamber than those that had been applied for led to an increase in the present values of binding commitments of network users.

3.5. Extension of the marketing period

138 No application was made to extend the marketing period pursuant to Article 28(1)(e) of Regulation (EU) 2017/459.

3.6. Alternative allocation mechanism

139 In accordance with operative part 1(g), no alternative allocation mechanism is to be used. There may therefore be no deviation from the allocation mechanism that applies as standard under Regulation (EU) 2017/459 for incremental capacity processes. Operative part 1(g) is the general exclusion, while operative part 1(b) only excludes the specific use of section 4 SRC ("Conclusion of contract under the alternative allocation mechanism") (see section **3.2.**).

140 Pursuant to Article 28(1)(f) and Article 30(2) of Regulation (EU) 2017/459, an alternative capacity allocation mechanism can be used, subject to the national regulatory authority's approval, where it is reasonable to conclude from the market demand assessment pursuant to Article 26 or the consultation defined in Article 27(3) of Regulation (EU) 2017/459 that the ascending clock auction is not suitable.

141 The applicants actually applied for such an allocation mechanism on 16 November 2020 and wanted to implement it under section 4 SRC ("Conclusion of contract under the alternative allocation mechanism"). However, in the course of the approval procedure they wrote a letter dated 4 March 2021 in which they explained that an allocation of the incremental capacity in the course of this project application did not have to depend on the request for incremental capacity at the border between the German market area (THE) and the Netherlands market area (TTF) for either technical or practical reasons, a view shared by the ruling chamber. The ascending clock auction does not seem to be inappropriate, therefore.

3.7. Fixed price

142 No application was made for a fixed price approach pursuant to Article 28(1)(g) of Regulation (EU) 2017/459.

3.8. Consideration requirements

143 The ruling chamber made due and proper use of its assessment and decision-making leeway during the approval decision. The statements that the applicants had to take into account pursuant to Article 27(4) sentence 2 of Regulation (EU) 2017/459 in their drawing up of the project application also had to be considered in the decision-making process. The Bundesnetzagentur gave these statements due weight in its considerations, paying particular attention to the overarching aim of regulation to ensure an efficient expansion of the network in line with requirements.

144 Its discretion was to be exercised in line with the purpose of empowerment (section 40 of the Administrative Procedure Act, VwVfG). These purposes include in particular the consideration requirements mentioned. In accordance with the second subparagraph of Article 28(2) of Regulation (EU) 2017/459, these were possible effects of the project on competition and the effective functioning of the internal gas market as well as, in accordance with recital 11 of Regulation (EU) 2017/459, any economic risks to captive customers from the investment.

145 The ruling chamber is convinced that the project application is not associated with negative effects for competition and the gas market. In particular, no negative effects for existing infrastructure are to be feared if the project application is implemented. The interests of captive customers are fully protected by the economic test.

4. Related decisions (operative part 4)

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

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, within the specified period.

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, 28 April 2021

Chair	Vice Chair	Vice Chair
Dr Christian Schütte	Dr Ulrike Schimmel	Roland Naas