



Ruling Chamber 9

BK9-20/005

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 the approval of a project application for incremental capacity concerning the respect to border between the Polish market area Transit Gas Pipeline System (TGPS) and the German market area Trading Hub Europe (THE)

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

- applicant -

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 26 April 2021:

- 1.) the project application (annex to this Decision) for an incremental gas transport capacity project concerning the border between the Polish market area Transit Gas Pipeline System (TGPS) and the German market area Trading Hub Europe (THE) is approved with the following amendments:

- a) 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)."

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."

b) 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 5	€1,779,243,278
Booking scenario 9	€1,547,128,562
Booking scenario 12	€1,686,903,353
Booking scenario 14	€1,182,763,316
Booking scenario 15	€1,349,228,740
Booking scenario 18	€1,221,016,858
Booking scenario 20	€1,591,183,592
Booking scenario 21	€1,119,756,257
Booking scenario 23	€1,501,845,110
Booking scenario 24	€1,435,726,765
Booking scenario 25	€1,012,583,906
Booking scenario 27	€984,408,827
Booking scenario 28	€1,459,006,126
Booking scenario 29	€1,420,495,691
Booking scenario 30	€1,410,633,492
Booking scenario 31	€1,392,302,906

c) the f-factor is set for each booking scenario as follows:

Booking scenario 5	0.89
Booking scenario 9	0.88
Booking scenario 12	0.89
Booking scenario 14	0.84
Booking scenario 15	0.86
Booking scenario 18	0.85
Booking scenario 20	0.88
Booking scenario 21	0.83
Booking scenario 23	0.87
Booking scenario 24	0.87
Booking scenario 25	0.81
Booking scenario 27	0.81
Booking scenario 28	0.87
Booking scenario 29	0.87
Booking scenario 30	0.87
Booking scenario 31	0.86

d) the mandatory minimum premium is set for each booking scenario as follows:

Booking scenario 5	€6.10/(kWh/h)/a
Booking scenario 9	€4.93/(kWh/h)/a
Booking scenario 12	€5.67/(kWh/h)/a
Booking scenario 14	€2.99/(kWh/h)/a
Booking scenario 15	€3.87/(kWh/h)/a
Booking scenario 18	€3.22/(kWh/h)/a
Booking scenario 20	€5.14/(kWh/h)/a
Booking scenario 21	€2.65/(kWh/h)/a
Booking scenario 23	€4.64/(kWh/h)/a
Booking scenario 24	€4.34/(kWh/h)/a
Booking scenario 25	€2.07/(kWh/h)/a
Booking scenario 27	€1.95/(kWh/h)/a
Booking scenario 28	€4.44/(kWh/h)/a
Booking scenario 29	€4.27/(kWh/h)/a
Booking scenario 30	€4.22/(kWh/h)/a
Booking scenario 31	€4.06/(kWh/h)/a

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

Booking scenario 5	€1,583,526,518
Booking scenario 9	€1,361,473,135
Booking scenario 12	€1,501,343,985
Booking scenario 14	€993,521,186
Booking scenario 15	€1,160,336,717
Booking scenario 18	€1,037,864,330
Booking scenario 20	€1,400,241,561
Booking scenario 21	€929,397,694
Booking scenario 23	€1,306,605,246
Booking scenario 24	€1,249,082,286
Booking scenario 25	€820,192,964
Booking scenario 27	€797,371,150
Booking scenario 28	€1,269,335,330
Booking scenario 29	€1,235,831,252
Booking scenario 30	€1,227,251,139
Booking scenario 31	€1,197,380,500

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 concerns the Polish-German border.
- 2 The Polish entry-exit system "Transit Gas Pipeline System" (TGPS) is connected to the German market area GASPOOL (in future Trading Hub Europe, THE) via the interconnection point "Mallnow" (EIC: 21Z000000000056S), which is operated on the Polish side by Gaz-System S.A. (hereinafter referred to as Gaz-System).
- 3 The following capacity is currently technically available in the flow direction from TGPS to GASPOOL: Gaz-System can market the total amount of 38,812,499 kWh/h of exit capacity (consisting of firm, freely allocable capacity, FZK). The applicant can offer 17,512,000 kWh/h of firm, freely allocable entry capacity (FZK) and 21,300,499 kWh/h of dynamically allocable entry capacity (DZK) at the above-mentioned interconnection point (also totalling 38,812,499 kWh/h, corresponding to the offer of Gaz-System).

Transmission system operator	Capacity type (capacity product; flow direction)	Technical capacity
GASCADE (applicant)	Entry capacity (FZK ; TGPS → GASPOOL)	17,512,000 kWh/h
	Entry capacity (DZK ; TGPS → GASPOOL)	21,300,499 kWh/h
Gaz-System	Exit capacity (FZK ; TGPS → GASPOOL)	38,812,499 kWh/h

Table 1: Current technical capacity

- 4 However, it should be noted that the planned merger of the German entry-exit systems to form one single German market area, THE, on 1 October 2021 will affect the existing capacity taken into account in the incremental capacity process because only the technical capacity (also known as basic capacity) within the meaning of section 9(4) sentence 1 of the Gas Network Access Ordinance (GasNZV) approved by Ruling Chamber 7 of the Bundesnetzagentur can be taken into account here. According to the corresponding approval by Ruling Chamber 7 of 22 April 2020 (BK7-20-011), the basic capacity at the German side of the interconnection point Mallnow as applied for by the transmission system operators will amount to 10,877,000 kWh/h (firm, freely allocable entry capacity) for the gas year (GY) 2021-2022. This amount of capacity is the most recent figure for the period relevant to this process and is therefore to be used as a basis for this project.

(1) Non-binding market demand indications

- 5 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. Gaz-System took a similar approach on the Polish side.
- 6 Within the context of this non-binding market survey, the applicant received the following demand indications for the market area border relevant here:

Exit capacity	Entry capacity	Gas year	Amount	Capacity product	Allocation restriction
TGPS	THE	2022-2023 to 2036-2037	9,629,000 kWh/h	THE entry capacity: firm, freely allocable capacity (FZK)	(none)

Table 2: Market demand indications received

- 7 Gaz-System did not receive any non-binding market demand indications for the relevant entry-exit system.
- 8 The request directed at the applicant referred to incremental FZK "in addition to all existing bookable FZK". According to the information provided to the applicant, the aim of the non-binding request was to be able to book the incremental capacity as FZK, rather than DZK, as of 1 October 2022. The existing DZK at the relevant cross-border interconnection point, meanwhile, was not booked by the requesting undertaking. The request for incremental capacity is therefore not to be understood as a capacity upgrade, but rather the requested incremental FZK is to be added to the technical capacity (FZK) available at the relevant time.

(2) Market demand assessment

- 9 The applicant announced the initiation of a project on the German side (entry THE) in the joint market demand assessment report published on 21 October 2019. There is no need for a technical study to be carried out on the Polish side, current results show, according to the joint analysis with Gaz-System.

https://www.fnb-gas-capacity.de/fileadmin/files/MDAR_Zyklus_2019-2021/MDAR_2019_Polen_TGPS_THE_eng.pdf

Link as at 9 March 2021

- 10 With regard to the additional information provided by the requesting undertaking about the aim of the non-binding demand indication (see above), the applicant explained in the joint market demand assessment that the total amount of existing technical capacity between the TGPS and (future) THE was already sufficient. The aim of the request was rather to create new FZK and in doing so, to replace existing, unbooked DZK with FZK. The further analysis would therefore relate to the German side.
- 11 The analysis related to the aforementioned cross-border interconnection point Mallnow and was based on the direction of flow for which the non-binding market demand indication had been submitted. The assessment largely consisted of an analysis of the past capacity usage between the above-mentioned entry-exit systems and of the technical capacity and the booked firm capacity. It found that the total of FZK set aside plus the requested incremental FZK was greater than the available FZK on the German side of the market area border and it was necessary to carry out a technical study for the relevant cross-border interconnection point.

(3) Design phase and consultation

- 12 At the start of the design phase, the applicant informed the Bundesnetzagentur in various conversations and correspondence about a modification/re-interpretation of the original market demand indication that it considered necessary and coordinated its planned next steps with the authority in the period between February and June 2020. The Bundesnetzagentur, for its part, informed the Polish regulatory authority URE and entered into dialogue with it on the issue. The applicant stated that the starting point for the assessment in the market demand report had changed in light of the effects of the market area merger on existing capacity (the future reduced capacity offer at the cross-border interconnection point, see above) and given the Bundesnetzagentur's view that the capacity upgrade (to FZK) actually requested would not be possible if the DZK that was to be upgraded was not previously booked by the undertaking in question. The applicant stated that it would put a project proposal amended to this effect out for consultation in coordination with Gaz-System.
- 13 In initial talks with the Bundesnetzagentur starting in February 2020, the authority pointed out that it would be necessary to at least ask the requesting undertaking for its opinion about a modification of the project that deviated from the market demand report to ensure that the project met demand, among other reasons. Following these talks, the applicant informed the requesting undertaking of its intended steps and the background to them in a letter of 31 March 2020. It put forward that the market demand indication, which it and the Bundesnetzagentur viewed as actually a request for a capacity upgrade, should be re-interpreted as a normal incremental capacity project (FZK). The requesting undertaking expressed its agreement with this in a letter to the applicant on 25 June 2020. The Bundesnetzagentur informed the URE of the plans in correspondence dated 26 May and 8 September 2020.

- 14 In the course of the market assessment and re-interpretation of the original request, the applicant and Gaz-System conducted technical studies to test technical feasibility and to design an expansion plan to meet market demand. It made the results available in a draft project proposal for consultation with a deadline of 10 September 2020. Even though it had been determined that there was only need for expansion on one side (see above), the two TSOs carried out the technical studies and the draft of the project proposal together so that the offer level for incremental capacity could be for bundled capacity.

https://www.fnb-gas-capacity.de/fileadmin/files/zyklus_2019_2021/konsultation/Polen_TGPS_-_THE/Consultation_document_Mallnow_en.pdf

Link as at 9 March 2021

- 15 The draft recommended expansion measures that, for the purpose of the adjustment to the project described above, were based on a consideration of 16,951,000 kWh/h at the German entry point to the future THE market area. Although the request related to the period from GY 2022-2023 up to and including 2036-2037, it would not be possible to provide the relevant capacity until GY 2027-2078 because the provision of incremental capacity required extensive expansion.
- 16 On the Polish side, the offer level for the period between GY 2026-2027 and 2041-2042 would amount to 31,049,999 kWh/h, taking account of a reserve quota (consultation document, table 2). On the German side, the offer level is as follows and starts one gas year later (see Annex II to the consultation document):

Offer level				
From	To	Offer of existing capacity (FZK) taking account of a reserve quota of 20%	Incremental capacity (FZK) taking account of a reserve quota of 20%	Aggregate offer level
GY 2027-2028	GY 2041-2042	8,701,600 kWh/h	13,560,800 kWh/h	22,262,400 kWh/h

Table 3: Offer level according to consulted project proposal of 10 August 2020

- 17 Incremental capacity was requested at several market area borders in the 2019-2021 incremental capacity cycle. In some cases, the same areas of congestion have to be relieved to meet this demand at the Polish-German market area border and at other market area borders (see Annex 1 to the consultation document). The applicant and the other TSOs therefore 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 in each scenario would be booked and the economic test had always 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 fuel gas costs given were for the maximum scenario. They included the natural gas tax and the CO₂ costs as well as the price of the commodity. No detailed breakdown of the investment or fuel gas costs was given in the consultation document.

- 18 To meet all capacity requests (maximum scenario), the consultation document envisages in particular various expansion measures totalling around €3.19bn on the EUGAL pipeline and on the NEL and MIDAL pipelines. Some other expansion measures had already been included in the draft Gas NDP 2020-2030 (published on 1 July 2020); their costs are thus not taken into account for the expansion of incremental capacity. The consultation document only contains the additional investments. The annual costs for fuel gas in the section of the NEL pipeline were put at about €19.6m, while those for the section of the MIDAL pipeline were put at about €33m.
- 19 Due to the context of the expansion measures and the dependence on the success of other incremental capacity projects at other market area borders (see Annex 1 to the consultation document), it was stated that it would not be possible to compare the actual costs of the binding bookings until after the annual auction in July 2021.
- 20 During the consultation process, Gaz-System responded to the project draft in a letter dated 9 October 2020. It referred to the project on the German side of the market area border and expressed concern about the effects of the German market area merger on the YAMAL pipeline, which runs through countries including Poland, is partially operated by Gaz-System and is connected to the German transmission system via the above-mentioned interconnection point.

https://www.fnb-gas-capacity.de/fileadmin/files/zyklus_2019_2021/Genehmigung_Ver%C3%B6ffentlichung/Polen_TGPS_-_THE/GAZ-System_Letter_reg_INC_project_at_Mallnow_IP_GAZ-SYSTEM_10-09-2020.pdf

Link as at 9 March 2021

- 21 It specified its concerns in the form of several questions, including why incremental capacity was to be offered from 2027 onwards and why it was not sufficient to upgrade capacity from DZK to FZK, as per the original request.
- 22 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 the project proposal at the border between Poland and Germany in which it criticised, among other things, this project proposal. 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

- 23 In a letter dated 28 October 2020, the applicant presented its project application to the ruling chamber for approval, replacing a project application that had been mistakenly submitted the day before (27 October 2020).
- 24 The submitted project application is different in some respects to the draft that was the subject of consultation in summer 2020. The total number of scenarios considered by the applicant in the technical studies for incremental capacity has been reduced to 47. Since the capacity for the THE-Poland (GCP) market area border can be provided in another way, the combinations of capacities for which non-binding demand indications had been made with this market area border have been omitted. The costs of the planned measure on the NEL pipeline are 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 €2.86bn. Following the Bundesnetzagentur's issue of the REGENT determination on 11 September 2020, the applicant set a reference price of €3.73/(kWh/h)/a for the economic test.
- 25 A corresponding application from Gaz-System was received by the URE on 28 October 2020 as well.
- 26 The project application contains in particular the following information:
 1. A list of the planned offer of bundled yearly capacity products for the interconnection point Mallnow (Annex II to the project application):

Products to be offered	Offer level
	Incremental capacity taking account of a reserve quota of 20% (FZK Gaz-System with FZKGASCADE)
GY 2027-2028 to GY 2041-2042	13,560,800 kWh/h

Table 4: Coordinated offer level IP Mallnow

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 values of the estimated increases 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 €822,397,299 and €1,617,661,278 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 0.51 to 0.74 for each conceivable booking scenario (see Annex 4 of the project application).
 - 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 €4.08/(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 values 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 €419,422,623 and €1,197,069,346 depending on the conceivable booking scenario in conjunction with the incremental capacity included in the offer level.

27 For further details, reference is made to the project application (annex to this 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

28 The ruling chamber first checked the project application of 28 October 2020 for completeness. Following various conversations with the applicant and requests for additional information by the ruling chamber, the applicant expanded or provided further detail on some of the underlying parameters of the economic test, the assumptions about the different booking scenarios and the SRCs in the period between October 2020 and March 2021. The applicant and other TSOs then made changes to this project and other incremental capacity projects related to this project:

29 The ruling chamber was of the opinion that the applicant 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.

- 30 In joint talks with other TSOs on 28 October 2020, the ruling chamber had already informed the applicant 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 applicant (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.
- 31 In a letter of 20 January 2021, the ruling chamber also requested the applicant to provide further explanations and reasons for the booking assumptions used by the applicant for the f-factor.
- 32 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 applicant 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.
- 33 The applicant supplied the requested additional explanations and reasoning for its booking assumptions within the economic analysis of the project in a letter dated 3 February 2021. In addition, the applicant submitted further information about the determination of the investment costs and the compressor energy costs in a letter dated 11 February 2021.
- 34 Thereafter, in a letter of 4 March 2021, the applicant submitted a revision of Annexes 1 and 4 to the project application (the scenario matrix 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, the applicant submitted new tables relating 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 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 applicant 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) as well as details of the investment costs, specifically related to the intended expansion of the compressor station "Radeland II".

- 35 Following a further talk with the applicant and other TSOs on 9 March 2021, in a letter of 16 March 2021 the applicant submitted the missing Annex to the SRCs detailing the calculation of the maximum charge for exercising the exceptional right of termination.
- 36 The ruling chamber informed the applicant that its project application was complete in a letter of 22 March 2021. On 24 March 2021, the ruling chamber, the applicant and other TSOs held a talk that focused on the preparation of the formal hearing.

(6) Coordination and participation

- 37 The Bundesnetzagentur and the URE were in communication and coordinated matters throughout the entire process. Ahead of the application submission, their focus was particularly on the applicant's re-interpretation of the original market demand indication (see above) and the effects of this on the subject and progress of the proceedings.
- 38 The ruling chamber informed the regulatory authority of the federal state of Hesse, where the applicant has its headquarters, of the proceedings in a letter of 25 November 2020.
- 39 The Bundesnetzagentur wrote to the URE on 19 March 2021 to inform it that the Bundesnetzagentur had received a complete project application from the applicant on 16 March 2021. In turn, the URE informed the Bundesnetzagentur in a letter of 25 March 2021 that it had also received a complete application on 22 March 2021.
- 40 On 26 March 2021, the URE wrote to the Bundesnetzagentur summarising the main content of its approval decision and providing an overview in table form of the offer level for bundled marketing of incremental capacity to be coordinated. The Bundesnetzagentur did likewise, sending the URE a letter with corresponding content on 30 March 2021.
- 41 The ruling chamber gave the applicant the opportunity to submit comments in a letter dated 29 March 2021. In addition, the ruling chamber gave the regulatory authority of the federal state of Hesse and the Bundeskartellamt the opportunity to state their views on 29 March 2021.
- 42 As stated in its letter of 8 April 2021, the Bundeskartellamt declined to comment. The Hesse state regulatory authority did not take the opportunity to respond.
- 43 The applicant responded in a letter dated 15 April 2021 in which it 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 reduced (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 applicant. The applicant 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"). In the view of the applicant, the SRCs for the incremental capacity auction should contain the provision applied for 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 applicant also 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"). The applicant objected to the reduction in the booking forecasts from 2042 onwards and argued 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. Moreover, it wrote that it could only partially understand the reduction of the booking forecast on the basis it was not yet possible to know what the European legislation for the regulation of hydrogen would be. The applicant 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 applicant.

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

II.

45 The applicant's project application for an incremental gas transport capacity project has been approved but only with amendments to 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 SRCs and parameters from the original application.

1. Legal basis

46 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

47 The formal requirements for approval have been met.

2.1. Competence

48 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

49 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

50 The application was submitted in a timely manner. Article 28(2) and (3) of Regulation (EU) 2017/459 envisage that the approval process should begin eight months before the relevant yearly capacity auction. The submission of the application on 28 October 2020 was in good time, as the relevant annual auction will take place on the first Monday in July 2021 (Article 11(4) of Regulation (EU) 2017/459).

2.4. Hearing

51 Before the decision was issued, pursuant to section 56(1) sentence 3 in conjunction with
section 67(1) EnWG, the applicant was given an opportunity to comment from 29 March 2021
to 15 April 2021.

2.5. Coordination with the Polish regulatory authority

52 Pursuant to Article 28(2) of Regulation (EU) 2017/459, the Bundesnetzagentur discussed the
matter both before and during the proceedings with the URE and coordinated the present approval
decision with it.

53 According to the mutual notifications of completeness (see Rationale I. (6) *Coordination and
participation*) by the two regulatory authorities, a complete project application had been submitted
to both of them by 22 March 2021, so the six-month deadline for publishing the coordinated
Decision in accordance with Article 28(2) sentence 1 of Regulation (EU) 2017/459 began on that
date.

54 The ruling chamber and the URE discussed how to proceed with the necessary coordination on
the main content of the application within the meaning of Article 28(2) sentence 4 of Regulation
(EU) 2017/459, including in a discussion on 3 March 2021, and subsequently agreed to
coordinate through the exchange of formal correspondence. To this end, the URE and the ruling
chamber sent each other tables showing the offer level to be coordinated in these proceedings in
advance. To initiate the formal coordination, the URE wrote to the Bundesnetzagentur
on 26 March 2021 summarising the main content of its approval decision and providing an
overview in table form of the offer level for bundled marketing of incremental capacity to be
coordinated. The Bundesnetzagentur did likewise, sending the URE a letter with corresponding
content on 30 March 2021.

2.6. Involvement of other authorities

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

56 Pursuant to section 56(1) sentence 3 in conjunction with sections 55(1) and 58(1) sentence 2
EnWG, the Bundeskartellamt and the regulatory authority of the federal state of Hesse, in which
the applicant has its headquarters, were informed of the start of the proceedings and given the
opportunity to comment.

3. Substantive requirements for approval

57 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 (e). The substantive requirements
for approval have been met.

58 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**);
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**).

59 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

60 It was possible to approve the project application as regards the offer level pursuant to Article 28(2) of Regulation (EU) 2017/459. The offer level submitted pursuant to Article 28(1)(a) of Regulation (EU) 2017/459 has been determined in accordance with regulatory requirements and reflects the range of expected demand for incremental capacity.

61 "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 bundled capacity products to be offered

62 The offer level submitted corresponds to legal requirements. The applicant, together with Gaz-System, has determined the bundled capacity products to be offered in accordance with Article 29(1) of Regulation (EU) 2017/459. The offer level is based on the provisions of Article 11(6) of Regulation (EU) 2017/459, pursuant to which:

[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).

63 The project application contains a single offer level and therefore one single expansion version. On the German entry side, the sum of the existing technical FZK, 10,877,000 kWh/h ("A"), and the incremental FZK, 16,951,000 kWh/h ("E"), equals the total requested FZK entry capacity of 27,828,000 kWh/h. The existing technical DZK entry capacity is not included. On the Polish side, there is enough corresponding, firm, unbooked exit capacity available to allow bundled marketing.

64 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. The planned start of operational use for the gas year 2027-2028 means that no capacity is affected by Article 8(7)(a) of Regulation (EU) 2017/459 in the annual auction on 5 July 2021, so the share to be set aside effectively remains at 20%.

- 65 The bundling requirement and the much higher amount of corresponding available firm exit capacity on the Polish side mean that the share of capacity to be set aside determined for the German side has a limiting effect on the offer of bundled yearly capacity products ("B" and "F" within the meaning of Article 11(6) of Regulation (EU) 2017/459).

	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
	technical capacity	capacity set aside	marketed capacity	additional capacity	incremental capacity	incremental capacity set aside
GY 2027-2028	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2028-2029	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2029-2030	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2030-2031	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2031-2032	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2032-2033	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2033-2034	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2034-2035	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2035-2036	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2036-2037	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2037-2038	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2038-2039	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2039-2040	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2040-2041	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h
GY 2041-2042	10,877,000 kWh/h	2,175,400 kWh/h	0 kWh/h	0 kWh/h	16,951,000 kWh/h	3,390,200 kWh/h

Table 5: determination of the offer level on the German entry side

- 66 This coordinated offer level of 22,262,400 kWh/h (existing capacity including incremental capacity less capacity to be set aside) 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 bundled 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

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

- 68 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.
- 69 The capacity amounts shown in **table 5** fulfil these requirements, with market demand reflected to the extent legally required in this case. The non-binding demand indicated, shown in **table 2**, can be fully met. The applicant has also explained that, owing to the extensive expansion necessary, it will not be possible to provide the capacity until gas year 2027-2028, rather than in 2022-2023 as requested.
- 70 Taking the response from GPE of 13 October 2020 into consideration does not raise concerns about an approval or specific amendment requirements either. GPE criticised the fact that the applicant in this case – as in other projects affecting the network interconnection points Greifswald and Lubmin II as well as the market area border TTF-THE – had only produced one offer level and that it is therefore not possible to react to changes or new findings in the course of the 2019-2021 incremental capacity cycle. GPE doubted whether the actual demand could be met in this way.
- 71 This criticism is not convincing. Under Article 28(1)(a) of Regulation (EU) 2017/459, transmission system operators are required to plan network expansion in line with likely market demand. An offer level should correspond to the full expected amount of demand, provided this is technically feasible and economically reasonable, which is the case here. More offer levels may be required if, for example, there are particularly favourable technical alternatives for higher or lower offer levels. If the expected market demand comes from multiple network users, more offer levels may be useful in the event that only some of these users ultimately make a binding commitment. However, in this instance the expected market demand comes from only one requesting party and refers to specific amounts of capacity. There is no indication, neither in the original demand indication nor in the responses, that varying amounts of bookings are possible. Therefore, there is no sufficiently certain reason for the applicant to develop additional offer levels corresponding to possible amounts of bookings. The applicant has drawn up a matrix for various requests in the 2019-2021 incremental capacity cycle including all project combinations. Dividing up each project into different offer levels would have made the matrix (exponentially) more complex and led to even more scenarios. Yet GPE complained in its response that the 60 scenarios consulted on at that point were already too complex and it was hardly possible to analyse them.

3.2. Supplementary rules and conditions

- 72 In accordance with Article 28(2) of Regulation (EU) 2017/459 and taking into account the amendment pursuant to operative part 1(a), the approval was also granted with regard to the

planned use of project-specific "Supplementary rules and conditions for incremental capacity" (SRC), which, as amended by operative part 1(a), are compatible with regulatory requirements.

- 73 According to Article 28(1)(b) of Regulation (EU) 2017/459, the applicant 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 [...]*".
- 74 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 the applicant, the interests of network users demanding network expansion and ultimately the interests of network users as a whole and "captive" customers must be balanced.
- 75 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*.
- 76 The ruling chamber considers sections 3 and 4 SRC to be relevant. They are compatible with regulatory requirements and seem to be appropriate in line with the standards mentioned above. Both section 3 and section 4 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 4 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 4 para 4 sentence 4 SRC).
- 77 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 of the General Rules and Conditions (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.

- 78 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 has therefore been approved with the amendment that the clauses given in operative part 1(a) be used.
- 79 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.
- 80 Under the provision submitted by the applicant, 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.
- 81 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.
- 82 The clause to be used in accordance with operative part 1(a) 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 applicant's statements 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. On balance, the ruling chamber continues to consider the determined wording appropriate, 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 applicant's 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.

- 83 Section 4 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 4 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.
- 84 Ultimately, any booking obligations in accordance with section 4 para 3 SRC may not lead to the inappropriate hoarding of capacity in a way that restricts the market (section 16(3) and (4) of the Gas Network Access Ordinance, GasNVZ). 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 4 para 3 sentence 5 SRC). It is therefore not necessary to actually and finally acquire transport rights. Secondary trading is still an option, too.
- 85 Ultimately, section 4 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. The clause is accompanied by an exemption to section 8(6) of Annex 1 of the Cooperation agreement, pursuant to which for bundled products, terminating one transport contract leads to the termination of the other transport contract. This does not pose an obstacle to approval either. It is true that the knock-on effect for bundled products would regularly permit TSOs full re-marketing, which could maximise the offer of bundled products (Article 19(1) of Regulation (EU) 2017/459). Nevertheless, in the cases of section 4 para 4 SRC, this knock-on effect for the whole bundled product is not necessary as, owing to the different amounts of technical capacity on the exit and entry sides of the interconnection point, it would be possible to re-market a full bundled product anyway.

3.3. Project timeline

- 86 The timeline submitted with the project application has been approved. According to it, the technical measures are to go into operation in 2027 and the requested capacity is to be provided from gas year 2027-2028.
- 87 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.
- 88 The planning and construction time of the necessary investments to provide capacity at the Mallnow interconnection point 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

- 89 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).
- 90 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. 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.

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

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 <u>before</u> the auction, enter the new capacities that are expected to be booked depending on the offer level in the auction. <u>After the auction</u> , 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.

91 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 February 2021

92 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.

93 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

- 94 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 applicant's project application contains one single offer level for 16.9 GW/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.
- 95 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 Russia) leads in some cases to congestion at the same place in the network as is the case to meet this demand for entry capacity at the Polish-German market area border (TGPS-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.
- 96 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 applicant was 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 applicant has 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 6: Scenario matrix

97 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.

98 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

99 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 applicant in the original project application of 28 October 2020 are approved as set out in operative part 1(b) as follows:

Booking scenario (positive economic test)	Present value applied for on 28 Oct 2020	Present value approved under op part 1(b)
Booking scenario 5	€1,617,661,278	€1,779,243,278
Booking scenario 9	€1,370,128,766	€1,547,128,562
Booking scenario 12	€1,559,811,664	€1,686,903,353
Booking scenario 14	€1,033,242,569	€1,182,763,316
Booking scenario 15	€1,108,237,759	€1,349,228,740
Booking scenario 18	€1,003,927,851	€1,221,016,858
Booking scenario 20	€1,471,966,521	€1,591,183,592
Booking scenario 21	€975,325,350	€1,119,756,257
Booking scenario 23	€1,374,315,704	€1,501,845,110
Booking scenario 24	€1,347,610,404	€1,435,726,765
Booking scenario 25	€864,564,573	€1,012,583,906
Booking scenario 27	€822,397,299	€984,408,827
Booking scenario 28	€1,319,898,293	€1,459,006,126
Booking scenario 29	€1,340,314,495	€1,420,495,691
Booking scenario 30	€1,307,203,283	€1,410,633,492
Booking scenario 31	€1,301,824,461	€1,392,302,906

100 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.

101 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

102 In the project application, the applicant has determined investment costs for the network expansion measures that it has 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 applicant, 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

- 103 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.
- 104 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.
- 105 For the distribution of costs for the individual expansion measures, the applicant 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 Russia. 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

- 106 As explained above, in the project application, the applicant has 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.
- 107 In this process, the applicant has 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.
- 108 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 applicant 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 applicant's approach leads to much higher rates for the part of the expansion measures related to the incremental capacity project. The applicant 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.
- 109 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 applicant has not shown plausibly that the planned cost rates of the Gas NDP were exceptionally, due to special circumstances, too low for a particular expansion measure. On the contrary, in its overall consideration of the expansion measure (expansion as part of the Gas NDP and this project), the applicant itself 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.

- 110 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

- 111 The applicant estimated annual compressor energy costs in the project application. To calculate the compressor energy costs incurred by the use of the incremental capacity, the applicant 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.
- 112 The applicant 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 CO₂ 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.
- 113 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 applicant 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.

- 114 However, the applicant also allocated costs proportionally to the incremental capacity project at the Danish border, which is not appropriate. In a letter of 13 November 2020, the applicant itself 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.
- 115 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 applicant itself 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.
- 116 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 applicant only between the other projects at the Russian market area border and this project. In carrying out this allocation, the ruling chamber has essentially followed the approach of the applicant. 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.
- 117 The applicant's 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 applicant's 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.

- 118 However, the applicant fails 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 applicant in the determination of the annual compressor energy costs. Using this physical approach, the applicant 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 applicant 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 applicant itself 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 applicant and, depending on the scenario (see 3.4.1), also from feed-in as part of this project.
- 119 What is more, in the approach chosen by the applicant, 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 6, 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 6, 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 6, scenario matrix). This does not support the approach to the distribution of costs used by the applicant, either.

3.4.2.3 Calculation of the present value

- 120 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).
- 121 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

- 122 The estimated reference price of €3.73/(kWh/h)/a requested by the applicant has been approved.
- 123 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 applicant 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.
- 124 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

- 125 Taking account of the connections between projects shown in the *scenario matrix* under 3.4.1, the f-factors applied for by the applicant in the original project application of 28 October 2020 are approved for each possible booking scenario as set out in operative part 1(c) as follows:

Booking scenario (positive economic test)	f-factor applied for on 28 Oct 2020	f-factor approved under op part 1(c)
Booking scenario 5	0.74	0.89
Booking scenario 9	0.69	0.88
Booking scenario 12	0.73	0.89
Booking scenario 14	0.59	0.84
Booking scenario 15	0.62	0.86
Booking scenario 18	0.58	0.85
Booking scenario 20	0.72	0.88
Booking scenario 21	0.57	0.83
Booking scenario 23	0.70	0.87
Booking scenario 24	0.69	0.87
Booking scenario 25	0.52	0.81
Booking scenario 27	0.51	0.81
Booking scenario 28	0.68	0.87
Booking scenario 29	0.69	0.87
Booking scenario 30	0.68	0.87
Booking scenario 31	0.68	0.86

- 126 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 requested by the applicant is plausible. 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.
- 127 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.
- 128 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

- 129 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.

- 130 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

- 131 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 assumption of the booking of incremental capacity within the capacity set aside is convincingly justified with the almost complete booking and usage of the existing capacity since 2017. The applicant has analysed the past booking and usage situation at the market area border relevant here. The market area border is currently to the smaller, separate German market area, GASPOOL. The capacity requested here will be created as firm, freely allocable capacity in the single German market area, THE. To that extent, the capacity products are not directly comparable. Nevertheless, the analysis and assessment of the past and current booking situation seems plausible, as a total of about 17.5-20 GWh/h of FZK and an additional 13.5-20 GWh/h of DZK were/are booked and used. The market usually uses a total of 31-38.5 GWh/h simultaneously for gas transports. The incremental capacity together with the existing capacity would result in nearly 28 GWh/h of FZK in future in the single German market area THE. As the past and current booking behaviour clearly shows that the higher-value FZK product was/is fully booked and significant amounts of DZK bookings were/are also made in addition, it seems appropriate to assume that the capacity set aside will be fully booked.

132 The capacity contract termination from the calendar year 2020 for several subsequent years on the German side of the market area border requested here does not contradict this booking assumption. The calendar year 2020, in particular – at the beginning of which the termination was carried out – has shown that the market has booked up all the FZK and almost all of the DZK in shorter-term contracts. This subsequent booking behaviour may also be observed for the gas year 2020-2021, in particular for the winter half-year.

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

133 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 applicant anticipates significant future bookings for this period, too. From the 16th year (GY 2042-2043) until the GY 2052-2053, the applicant expects bookings of 80% of the incremental capacity. From GY 2053-2054 up to the end of operational use in GY 2071-2072, the applicant expects a booking level of 65%. It justifies its booking assumptions with the great importance of the infrastructure to the energy market and to a future hydrogen market.

134 However, it is not clear to the ruling chamber that the booking forecasts used by the applicant 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 based on the booking forecast of 80% assumed for GY 2042-2043 appropriate; no capacity forecast is appropriate from GY 2050-2051 onwards for the same reasons.

135 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.

- 136 During the consultation, the applicant 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. The applicant did not refute the risks mentioned above either. According to the explanations of the applicant 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 applicant views 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 applicant 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 applicant 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 the applicant indicates in its statement 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 applicant 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"*.

- 137 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

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

- 139 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.
- 140 The applicant has 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 applicant in this regard.
- 141 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.
- 142 It should also be noted 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), from the booking revenue of the incremental capacity from the offer level. This project application, in particular, correctly (for the purpose of efficient network expansion) takes significant account of existing infrastructure for incremental capacity to reduce the need for network expansion. Of the total 16.9 GWh/h of incremental capacity, 7.3 GWh/h of it can be transported via the existing network infrastructure from Mallnow to Reckrod, apart from the last section of the network, MIDAL-Süd. Therefore, for these transports there is no additional network expansion as part of this project, but there is also no cost attribution for this existing infrastructure for the bookers of incremental capacity, since in the economic test only the costs of incremental capacity may be included and refinanced.
- 143 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

- 144 Taking account of the connections between projects shown in the *scenario matrix* under 3.4.1, the mandatory minimum premiums applied for by the applicant in the original project application

of 28 October 2020 are approved for each possible booking scenario as set out in operative part 1(d) as follows:

Booking scenario (positive economic test)	Mandatory minimum premium applied for on 28 Oct 2020	Mandatory minimum premium approved under op part 1(d)
Booking scenario 5	€4.08/(kWh/h)/a	€6.10/(kWh/h)/a
Booking scenario 9	€2.76/(kWh/h)/a	€4.93/(kWh/h)/a
Booking scenario 12	€3.77/(kWh/h)/a	€5.67/(kWh/h)/a
Booking scenario 14	€0.98/(kWh/h)/a	€2.99/(kWh/h)/a
Booking scenario 15	€1.38/(kWh/h)/a	€3.87/(kWh/h)/a
Booking scenario 18	€0.82/(kWh/h)/a	€3.22/(kWh/h)/a
Booking scenario 20	€3.30/(kWh/h)/a	€5.14/(kWh/h)/a
Booking scenario 21	€0.67/(kWh/h)/a	€2.65/(kWh/h)/a
Booking scenario 23	€2.79/(kWh/h)/a	€4.64/(kWh/h)/a
Booking scenario 24	€2.64/(kWh/h)/a	€4.34/(kWh/h)/a
Booking scenario 25	€0.09/(kWh/h)/a	€2.07/(kWh/h)/a
Booking scenario 27	€0.00/(kWh/h)/a	€1.95/(kWh/h)/a
Booking scenario 28	€2.50/(kWh/h)/a	€4.44/(kWh/h)/a
Booking scenario 29	€2.61/(kWh/h)/a	€4.27/(kWh/h)/a
Booking scenario 30	€2.43/(kWh/h)/a	€4.22/(kWh/h)/a
Booking scenario 31	€2.40/(kWh/h)/a	€4.06/(kWh/h)/a

- 145 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 applicant 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.
- 146 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.

147 The increases of the individual mandatory minimum premiums result from the following two effects: firstly, the ruling chamber approved the respective present values of the estimated increase in the allowed revenue with higher values than had been applied for. Secondly, the ruling chamber approved higher f-factors than had been applied for.

3.4.6. Present value of binding commitments of network users

148 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 applicant in the original project application of 28 October 2020 are approved for each possible booking scenario as set out in operative part 1(e) as follows:

Booking scenario (positive economic test)	Present value applied for on 28 Oct 2020	Present value approved under op part 1(e)
Booking scenario 5	€1,197,069,346	€1,583,526,518
Booking scenario 9	€945,388,849	€1,361,473,135
Booking scenario 12	€1,138,662,515	€1,501,343,985
Booking scenario 14	€609,613,116	€993,521,186
Booking scenario 15	€687,107,412	€1,160,336,717
Booking scenario 18	€582,278,154	€1,037,864,330
Booking scenario 20	€1,059,815,896	€1,400,241,561
Booking scenario 21	€555,935,450	€929,397,694
Booking scenario 23	€962,020,993	€1,306,605,246
Booking scenario 24	€929,851,179	€1,249,082,286
Booking scenario 25	€449,573,578	€820,192,964
Booking scenario 27	€419,422,623	€797,371,150
Booking scenario 28	€897,530,840	€1,269,335,330
Booking scenario 29	€924,817,002	€1,235,831,252
Booking scenario 30	€888,898,233	€1,227,251,139
Booking scenario 31	€885,240,634	€1,197,380,500

149 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.

150 The individual present values given above apply to each booking scenario (combination of positive economic tests of one or more projects). The different amounts of the present values 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. The increase of the individual present values results from the following two effects: firstly, the ruling chamber's higher approval of the

respective present values of the estimated increase in the allowed revenue than had been applied for. Secondly, the ruling chamber had approved higher f-factors than had been applied for in the project application.

3.5. Extension of the marketing period

- 151 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

- 152 No application was made for an alternative allocation mechanism pursuant to Article 28(1)(f) of Regulation (EU) 2017/459.

3.7. Fixed price

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

3.8. Consideration requirements

- 154 The ruling chamber made due and proper use of its assessment and decision-making leeway during the positive approval decision.
- 155 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 the views of the Polish regulatory authority, any 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.
- 156 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 2)

- 157 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, 26 April 2021

Chair

Vice Chair

Beisitzer

Dr Christian Schütte

Dr Ulrike Schimmel

Roland Naas