





Publication acc. to Art. 25 Para 2, Art. 28 Para 3 REG (EU) 2017/459 (NC CAM) regarding the procedure, initiated in 2019, for incremental capacity at the border between the Danish market area and the market area Trading Hub Europe (THE)

5 May 2021

I. Introduction

Following the conclusion of phase 1 of the procedure initiated in 2019 in accordance with Regulation (EU) 2017/459 (network code on capacity allocation mechanisms in gas transmission systems; hereinafter "NC CAM") for incremental capacity at the market area border between the Danish market area and THE, the participating transmission system operators (TSOs) executed the design phase for the technical projects (phase 2) and concluded their consultations in autumn 2020. The Technical Study described how the transmission system can be expanded efficiently in consideration of the transmission system topology and economic aspects. The project application, submitted and published on 9 October 2020, is a joint document of the involved German TSOs Open Grid Europe GmbH, hereinafter OGE, and Gasunie Deutschland Transport Services GmbH, hereinafter GUD, as well as the adjacent TSO in the Danish market area Energinet Gas TSO A/S, hereinafter Energinet. The project proposal was approved by Bundesnetzagentur (hereinafter: BNetzA) with decision **BK9-20/004**.

The project proposal was approved by the Danish Utility Regulator with decision **20/13508**. In accordance with the project proposal, Energinet will be able to make available, without further investments, the technical capacity necessary for the offer of firm exit capacity on the Danish side. Thus Energinet will not be offering any incremental capacity at the annual auction 2021 on 5 July at the cross border point Ellund.

Publication acc. to. Art. 28 Para. 3 NC CAM

- II. Approval contents according to Art. 25 Para. 1 NC CAM
- a. Offer Level acc. to Art. 28 para. 1 lit. a NC CAM

GUD will offer one offer level for incremental capacity in the annual auction 2021 on 5 July at the cross border point Ellund. The mandatory reservation of 20% for incremental capacities pursuant to Art. 8 (8) NC CAM and the ruling by the Federal Network Agency (BNetzA) BK7-15-001 (KARLA Gas) will be taken into account. There will be one auction for the offer level per gas year (GY). The capacity will be offered as bundled product.

¹https://www.bundesnetzagentur.de/DE/Beschlusskammern/1 GZ/BK9-GZ/2020/2020 bis0999/BK9-20-0004/BK9-20-0004 Antrag BKV.html?nn=745220

²https://forsyningstilsynet.dk/gas/afgoerelser/afgoerelse-vedr-godkendelse-af-forslag-til-udbud-af-ny-uafbrydelig-kapacitet-ved-den-dansk-tysk-graense-efter-nc-cam-artikel-28







The offer level will be offered from GY 27/28 to GY 41/42. The auction will take place on the **PRISMA Capacity Booking Platform**.³ Registration is required to participate in the auction. The capacity products are shown in the following table. The capacity was defined in accordance with Art. 11 Para. 6 NC CAM⁴:

Offer Level - GUD								
From	То	Α	В	С	D	E	F	capacity offered
01.10.2025	01.10.2026	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2026	01.10.2027	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2027	01.10.2028	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2028	01.10.2029	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2029	01.10.2030	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2030	01.10.2031	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2031	01.10.2032	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2032	01.10.2033	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2033	01.10.2034	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2034	01.10.2035	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2035	01.10.2036	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2036	01.10.2037	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2037	01.10.2038	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2038	01.10.2039	0	0	0	0	2,500,000	500,000	2,000,000
01.10.2039	01.10.2040	0	0	0	0	2,500,000	500,000	2,000,000

The offer level only includes incremental capacity.

Scenarios

Since several projects for incremental capacity are considered in the incremental capacity cycle initiated in 2019, there are significant overlaps of the measures necessary to be able to offer the incremental capacity at the different market area borders.

Therefore, an individual examination of the requests for incremental capacity including the individual necessary measures is not expedient. The necessary measures in particular depend on which requested market area border the economic test for incremental capacity is successful. That is why different scenarios are considered. Each scenario is based on a single market area, as well as a combination of non-binding requested capacity at the other market

³ https://platform.prisma-capacity.eu/#/start

⁴ A to F acc. to Art. 11 Para. 6 NC CAM: A – technical capacity; B – amount of technical capacity which is set aside acc. to Art. 8; C – sold technical capacity; D – additional capacity; E – incremental capacity in a respective offer level; F - amount of incremental capacity which is set aside acc. to Art. 8.







area borders. In total there are 31 different possible combinations, which are shown in the following scenario matrix:

	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					
17	1		1	1				
18				1	1			
19		1		1				
20		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				
27			1	1	1			
28		1		1	1			
29		1	1		1			
30		1	1	1	1			
31	1	1	1	1	1			
	1: economic test is positive Empty cell: economic test was not positive							







There are 16 possible scenarios for this project. Each of these scenarios has specific parameters, which can be found below.

Outcome of the economic test per scenario DK-THE							
Scenario	Denmark	Russland	Greifswald Upgrade	Lubmin II Upgrade	Polen Mallnow		
1	1						
6	1	1					
7	1		1				
8	1			1			
9	1				1		
16		1	1				
17	1		1	1			
18				1	1		
19		1		1	4		
20		1	1		1		
21	1	1	1	1	1		
26	1	1	1	1	1		
27		1	1	1	1		
29		1	1	1	1		
31	1	1	1	1	1		
31	1: economic test is positive Empty cell: economic test was not positive						

b. Supplementary Terms and Conditions for the auction for incremental capacity acc. to Art. 28 para. 1 lit. b NC CAM

The Supplementary Terms and Conditions are attached to this document.⁵

c. Timeline for the incremental capacity project and measures to prevent delays and to minimise the impact of delays acc. to Art. 28 para. 1 lit. c NC CAM

The table below shows the further steps for the project for incremental capacity and also outlines a rough timeline for the technical measures in the GUD grid. This timeline already includes time buffers for the avoidance of delays in provision of the capacities.

Subproject	Start	Period	Description
Reversal	Oct 23	3 months	Project initiation
compressor	Jan 24	4 months	Detail Engineering
station	May 24	7 months	Applications and approval
Quarnstedt	Dec 24	4 months	Tender and order placement

⁵ In the course of participation in the annual auction on 5 July 2021, the general terms and conditions of the respective transmission system operator must also be accepted. You can find them here: Gasunie Deutschland Transport Services GmbH: https://www.gasunie.de/en/downloads

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	Dec 24	6 months	Order/Delivery
	Jun 25	6 months	Assembly/Construction
	Dec 25		Commissioning
	Dec 25	4 months	Project conclusion/completion
Looppipeline	Aug 21	3 months	Project initiation
Heidenau -	Nov 21	6 months	Detail Engineering
Achim	Mai 22	18 months	Applications and approval
	Nov 23	12 months	Tender and order placement
	Nov 23	12 months	Order/Delivery
	Dez 24	18 months	Assembly/Construction
	Dec 25		Commissioning
	Dez 25	4 months	Project conclusion/completion

The aforementioned dates are provisional and subject to change.

In addition to the expansion measures in the GUD grid, further extensive expansion measures are necessary to realize the requested incremental capacity. The milesstones are shown in the following table.

Milestones	Years of completion of project phases of the measures
Project concept	2021
Basic evaluation/feasibility review	2021-2022
Design planning	2022-2023
Preparation of general planning procedure	2022
Implementation of general planning procedure	2023-2024
Preparation of Federal Emission Control Act (BImSchG)	2023
Property acquisition	2025
Preparation of plan approval procedure	2023
Implementation of plan approval procedure	2024-2025
Acquisition of right of way	2025-2026
Implementation of Federal Emission Control Act (BImSchG)	2024-2025
Construction approval process	2025
Material and service procurement	2023-2026
Preparation and start of construction	2025-2026
Assembly/construction	2025-2027
Commissioning	2027
Project conclusion/completion	2028

d. Parameters defined in Art. 22 Para. 1 lit. d NC CAM

i. Parameter defined in Art. 22 Para. 1 lit. a NC CAM

Reference price

The estimated reference price for the offered incremental capacity is 3,73 €/(kWh/h)/a.







Auction premium:

The algorithm for ascending clock auctions pursuant to Art. 17 NC CAM applies to the auction of the incremental capacities pursuant to Art. 29 (1) NC CAM. This may result in an auction premium which will only be determined at the end of the 2021 annual auction. For this reason, it was not taken into account in the calculation of the f-factor, but it must be included in the economic test.

Mandatory minimum premium:

Acc. to decision BK9-20/004 and with the help of the BNetzA Tool⁶ the following range of the level for the mandatory minimum premium was approved and comes into effect:

booking scenario (positive economic test)	Mandatory minimum premium
scenario 1	37.22 €/(kWh/h)/a
scenario 6	14.38 €/(kWh/h)/a
scenario 7	12.77 €/(kWh/h)/a
scenario 8	18.30 €/(kWh/h)/a
scenario 9	14.58 €/(kWh/h)/a
scenario 16	10.51 €/(kWh/h)/a
scenario 17	11.99 €/(kWh/h)/a
scenario 18	10.52 €/(kWh/h)/a
scenario 19	13.10 €/(kWh/h)/a
scenario 20	9.91 €/(kWh/h)/a
scenario 21	9.13 €/(kWh/h)/a
scenario 26	8.30 €/(kWh/h)/a
scenario 27	7.29 €/(kWh/h)/a
scenario 28	8.15 €/(kWh/h)/a
scenario 29	7.45 €/(kWh/h)/a
scenario 31	6.80 €/(kWh/h)/a

⁶ For the sake of transparency and for the purposes of economic test according to Article 22 NC CAM, the BNetzA created and published a calculation tool, hereinafter "BNetzA-Tool". The BNetzA tool can be found at the following website:

 $https://www.bundesnetzagentur.de/EN/Areas/Energy/Companies/GridDevelopment/Gas/IncrementalCapacities/IncrementalCap_node.html \\$







Present value of binding commitments of network users:

Acc. to decision BK9-20/004 and with the help of the BNetzA Tool the following present value of binding commitments of network users were calculated and approved:

booking scenario	Present value of binding
(positive economic test)	commitments of network users
scenario 1	695,721,268 €
scenario 6	307,564,805 €
scenario 7	280,318,396 €
scenario 8	374,185,818 €
scenario 9	310,972,564 €
scenario 16	241,933,216 €
scenario 17	267,115,174 €
scenario 18	242,004,727 €
scenario 19	285,901,174 €
scenario 20	231,627,055 €
scenario 21	218,369,489 €
scenario 26	204,399,145 €
scenario 27	187,140,166 €
scenario 28	201,845,818 €
scenario 29	189,923,816 €
scenario 31	178,803,129 €







ii.Parameter defined in Art. 22 Para. 1 lit b NC CAM

Acc. to decision BK9-20/004 and with the help of the BNetzA Tool the following estimated allowed revenue increases were calculated and approved:

booking scenario	Present value of estimated allowed
(positive economic test)	revenue increases
scenario 1	695,721,268 €
scenario 6	307,564,805 €
scenario 7	280,318,396 €
scenario 8	374,185,818 €
scenario 9	310,972,564 €
scenario 16	241,933,216 €
scenario 17	267,115,174 €
scenario 18	242,004,727 €
scenario 19	285,901,174 €
scenario 20	231,627,055 €
scenario 21	218,369,489 €
scenario 26	204,399,145 €
scenario 27	187,140,166 €
scenario 28	201,845,818 €
scenario 29	189,923,816 €
scenario 31	178,803,129 €

iii. f-Faktor acc. Art. 22 Abs. Para. 1 lit. c NC CAM

The f-factor of the offer level is 1,0.

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iv. Overview of paramters

	Overview of all parameters per scenario DK-THE								
Scenario	Denmark	Russland	Greifswald Upgrade	Lubmin II Upgrade	Polen Mallnow	estimated allowed	Present value of binding commitments of network users	Mandatory minimum premium	f-factor
1	1					695,721,268€	695,721,268€	37.22 €/(kWh/h)/a	1,0
6	1	. 1				307,564,805€	307,564,805€	14.38 €/(kWh/h)/a	1,0
7	1		1			280,318,396€	280,318,396€	12.77 €/(kWh/h)/a	1,0
8	1			2	1	374,185,818€	374,185,818€	18.30 €/(kWh/h)/a	1,0
9	1				1	310,972,564€	310,972,564€	14.58 €/(kWh/h)/a	1,0
16	1	. 1	1			241,933,216€	241,933,216€	10.51 €/(kWh/h)/a	1,0
17	1		1	1	1	267,115,174€	267,115,174€	11.99 €/(kWh/h)/a	1,0
18	1			2	1 1	242,004,727€	242,004,727€	10.52 €/(kWh/h)/a	1,0
19	1	. 1		3	1	285,901,174€	285,901,174€	13.10 €/(kWh/h)/a	1,0
20	1	. 1			1	231,627,055€	231,627,055€	9.91 €/(kWh/h)/a	1,0
21	1		1		1	218,369,489€	218,369,489€	9.13 €/(kWh/h)/a	1,0
26	1	. 1	1	1	1	204,399,145€	204,399,145€	8.30 €/(kWh/h)/a	1,0
27	1		1		1 1	187,140,166€	187,140,166€	7.29 €/(kWh/h)/a	1,0
28	1	1			1 1	201,845,818€	201,845,818€	8.15 €/(kWh/h)/a	1,0
29	1	1	1		1	189,923,816€	189,923,816€	7.45 €/(kWh/h)/a	1,0
31	1	. 1	1		1 1	178,803,129€	178,803,129€	6.80 €/(kWh/h)/a	1,0
	1: economic test is positive							· · · · · · · · · · · · · · · · · · ·	
	Empty cell: economic test was not positive								







- e. Exceptionally extended marketing horizon acc. to Art. 28 Para. 1 lit. e NC CAM An extended marketing horizon is not used.
- f. Alternative allocation mechanism acc. to Art. 28 Para. 1 lit. f NC CAM An alternative allocation mechanism is not used.
- g. Fixed price approach acc. to Art. 28 Para. 1 lit. g NC CAM A fixed price approach is not used.

III. **Contact Data**

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Anlagen IV.

1. **Supplementary terms and Conditions**