

**Project application for approval  
for the Incremental Capacity Process 2019  
for the Market Border Area between  
Denmark and Trading Hub Europe**

**9th of October 2020**



This report is a joint assessment of the potential for incremental capacity projects conducted by

**Energinet Gas TSO A/S**

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## I. Introduction

Having concluded the phase 1 of the incremental capacity process in 2019, as laid down in Regulation (EU) 2017/459 (Network Code on Capacity Allocation Mechanisms; below referred to as “NC CAM), the affected transport system operators (TSO) on the Danish market area and the joint German market area Trading Hub Europe (THE) initiated the project design phase (phase 2). After the consultation of the technical study ended in September 2020, the application for approval by the Federal Network Agency follows.

The conclusion of the market demand assessment report was that Gasunie Deutschland Transport Services GmbH (GUD) and Open Grid Europe GmbH (OGE) had to start a project for incremental capacity. Whereas the adjacent Danish TSO energinet Gas TSO A/S (Energinet) did not have to initiate a project since sufficient firm capacity is available on the Danish site of the border.

In addition to the unbinding request at the market area border DK-THE, numerous other unbinding requests for incremental capacity have been received by German TSOs. This results in a wide range of modelling scenarios, which have to be conducted as a basis for the technical study. That is why the initial timeline was adapted.

The planned market area merger of the German entry-exit-systems to one German market area as of 1<sup>st</sup> October 2021 has an impact on the existing capacity to be considered. Only the approved capacity (following “base capacity”) can be considered for the incremental capacity process (acc. to § 9 Abs. 4 S. 1 Gasnetzzugangsverordnung; following “GasNZV”). Consequently, the technical capacity of 172 MWh/h shown in die market demand assessment report of 21<sup>st</sup> October 2019 must not be taken into account, as it is not base capacity. Accordingly, there is a demand for incremental capacity from Denmark to Germany in the amount of 2,500,000 kWh/h.

For this incremental capacity project, the technical studies are conducted for potentially all Interconnection Points (IPs) of the entry-exit system border for which the project was initiated. Thereby economical aspects and aspects of grid topology are considered. The consultation for the initiated process for incremental capacity between the Danish market area and Trading Hub Europe ended on 10 September 2020.

This project application is a joint document of the involved TSOs Energinet, OGE und GUD.

## II. German Side of the Market Area Border

### 1. Project Proposal

In total, the technical studies of the present cycle for incremental capacity considered 47 scenarios, each based on a different combination of projects based on non-binding demand indications. The expansion measures were developed under the premise that all indicated capacities would be booked and that all economic tests would be positive. In this document, only those measures of this maximum scenario are described in text form that are partly caused by the above-mentioned requested capacity. All expansion measures of the maximum scenario are shown in Figure 1. A detailed breakdown of costs is not provided here. The basis of the listed expansion measures is the infrastructure contained in the draft document for the German Gas Network Development Plan 2020-2030 (published on 1 July 2020; hereinafter "NEP"), including the network expansion measures resulting from the modelling variant with the name "basic variant". The investment costs are initial estimates. In addition to the cost of the investment also operating costs are relevant, which amongst others are caused by fuel gas necessary for the operation of compressors. The annual costs are given below for the maximum scenario. In addition to the price for the commodity, these costs also include natural gas tax and CO2 costs.

Incremental Capacity Cycle 2019-2021 - Expansion

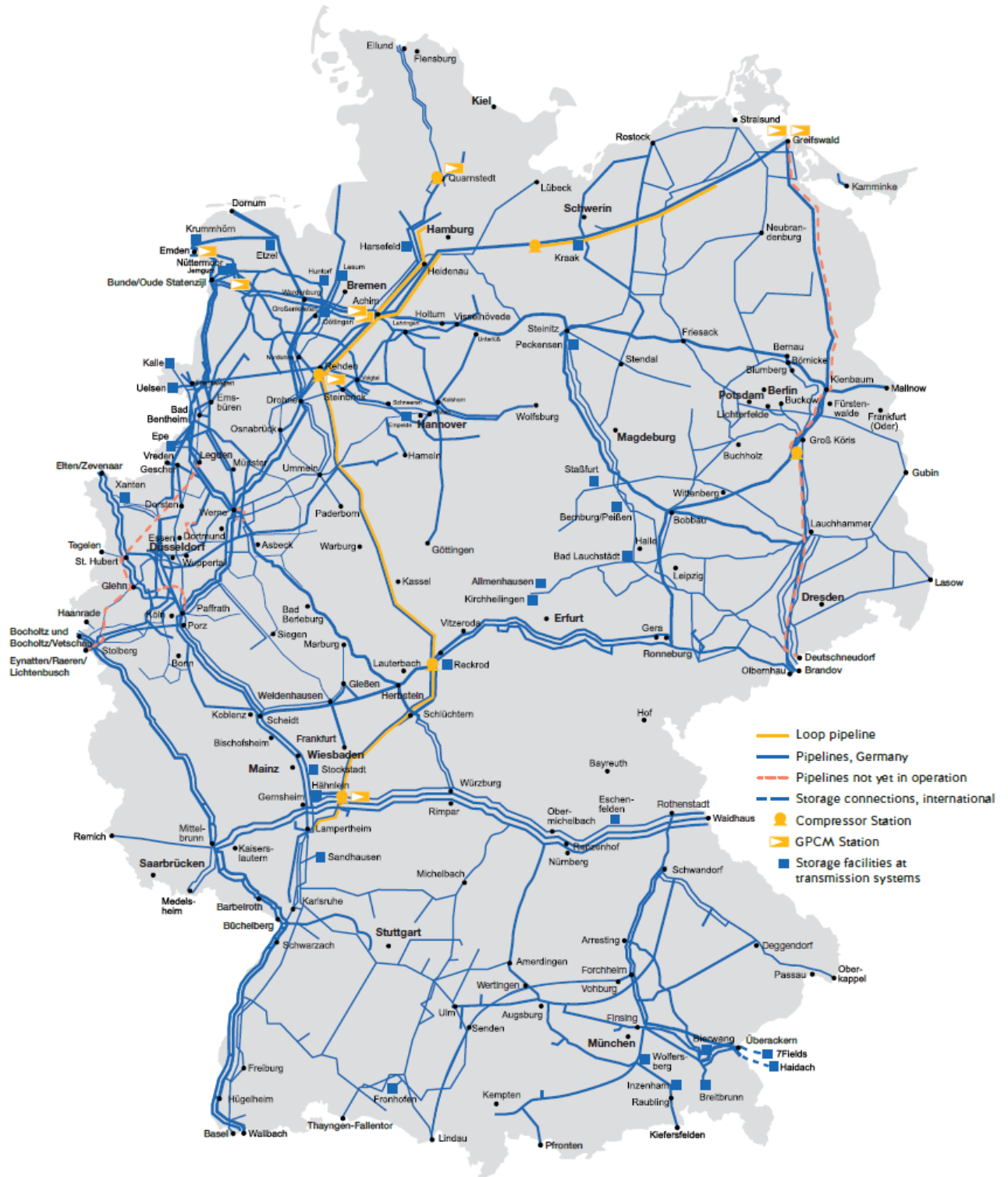


Figure 1: Technical Measures for maximum scenario

For the technical study on the Denmark-THE market area border the demand indication detailed in the demand assessment report has been considered. There is a constant capacity demand of 2.500.000 kWh/h. This value was used for the technical study.

From the perspective of the German FNB, it is entry capacity. The networks of the German TSO OGE (currently market area NetConnect Germany, NCG) and GUD (currently market area GASPOOL) are connected with the network of energinet via the interconnection point Ellund.

The planned transport route would provide the requested capacity via the network of GUD, which is partly under joint ownership, following via NEL pipeline (Nordeuropäische Erdgasleitung) to Rehden and via MIDAL pipeline (Mitte-Deutschland-Anbindungsleitung) towards Herchenrode/Gernsheim. In addition, it will be ensured that a transport from the current market area GASPOOL to the current market area NCG in the area of Herchenrode/Gernsheim will be possible. The current two market areas will be merged as of 01.10.2021 to the market area THE.

The requested capacity will be provided via the pipeline Deutsch/ Dänischen Erdgastransport-Gesellschaft (DEUDAN, joint venture of OGE and GUD) from IP Ellund to the German Market Area. From Quarnstedt to Achim the requested capacity will be provided in the jointly owned pipelines of GUD and OGE.

Currently there are three requests for capacity acc. to § 39 GasNZV for the same area in the network of GUD, which had to be taken into account in the technical study. The technical measures to provide the capacity for LNG facilities are part of the NEP draft document 2020. The costs described in this consultation document assume that the LNG facilities are realized.

In the northern part of the network of GUD following measures are necessary: The compressor station Quarnstedt has to be reversed. The investment amounts to approx. 3.5 million. From Elbe Süd to Heidenau a loop pipeline with a length of approx. 67 km in DN 800 has to be build. This is already included in the NEP (part of the pipeline Elbe Süd-Achim, ID-Nr. 636-01). From Heidenau to Achim a loop pipeline with a length of approx. 57 km in DN 1000 must be constructed. The loop pipeline is already included in the NEP in DN 800 (part of the pipeline Elbe Süd-Achim, ID-Nr. 636-01). The additional investment is approx. EUR 25 million. In total, the additional investment amount to approx. EUR 28.5 million.

To enable the transport on a firm basis it is necessary to realize the following technical measures on the NEL gas pipeline west of the Achim shut-off station: A loop pipeline with a length of approx. 67 km in DN 1400 has to be constructed. Of this, 52 km in DN 1400 are already included in the NEP (pipeline NEL West, ID no. 634-01). The additional investments amount to approx. EUR 118 million. In total, the additional investments on this pipeline section amount to approx. EUR 118 million.

In addition, the following expansion measures are necessary on the MIDAL gas pipeline: The Rehden compressor station must be extended by a compressor capacity of approx. 48 MW. The investments amount to approx. EUR 250 million. In Rehden, a GDRM station with a capacity of 2.2 million Nm<sup>3</sup>/h must also be constructed. The investments amount to approx. EUR 17 million. A loop pipeline with a length of approx. 260 km in DN 1400 is to be constructed from Rehden to Reckrod. Of this, 61 km are already included in the NEP (pipeline MIDAL Mitte Nord, ID no. 627-01; pipeline MIDAL Mitte Süd, ID no. 628-01). The additional investments amount to approx. EUR 905 million. A compressor station with a compressor capacity of 84 MW is to be built near Reckrod. This is already included in the NEP with a compressor capacity of 36 MW (VDS Reckrod, ID-No. 629-01). The additional investments amount to approx. EUR 140 million. From Reckrod to Lampertheim a loop pipeline with a length of approx. 200 km in DN 1400 is to be constructed. Of this, 115 km in DN 1000 are already included in the NEP (Wirtheim-Lampertheim line, ID no. 609-01). The additional investments amount to approx. EUR 535 million. A compressor station with a compressor capacity of approx. 46 MW is to be built near Herchenrode. The investments amount to approx. EUR 180 million. In addition, a GDRM station with a capacity of approx. 4 million Nm<sup>3</sup>/h is to be built in Herchenrode. The investments amount to approx. EUR 31 million. In total, the additional investments on this pipeline section amount to approx. EUR 2,063 million. The annual costs for fuel gas for this section are approximately 33 Mio. Euros.

Due to the capacity expansion measures on the MIDAL gas pipeline it is possible to transport the capacity via Herchenrode/Gernsheim to THE network area NCG. There are no further technical measures necessary to provide the requested capacity in the NCG network area.

Due to the large number of non-binding demand indications for incremental capacity, depending on booking behaviour in the 2021 annual auctions respectively the outcome of alternative allocation mechanism in place, there are interdependencies regarding the project costs to be allocated. Depending on the incremental capacity to be provided on a grid section, synergies or dyssynergies may arise. Synergies are mainly generated by economies of scale. For example, the larger the diameter of a loop line is selected, the lower the specific transport costs will generally be for the same relative capacity utilization. Dyssynergies arise mainly through additional investments, e.g. when the combined incremental capacity requirements of several projects trigger a dimensional leap in a line measure. The cost per measure are allocated to the projects according to the provided incremental capacity. The dependencies of the projects as well as the present value of increase of allowed revenues are shown in the Annex to this consultation document.

The costs to be compared to the bindingly submitted bookings will therefore only be known finally after the annual auctions and the alternative allocation mechanism have been carried out.



## 2. Offer Level

The table below sums up the offer level, taking into account Art. 8 (7) + (8) NC CAM and the currently valid decision of BK7-15-001 (KARLA Gas) and therefore considering reservation quotes of 20 % for existing and incremental capacity.

The incremental capacity was requested with the start of gas year (following “GY”) 2022/2023. Given that it will not be known until after the annual auction in July 2021 whether the above measures will be implemented and given the extensive grid expansion measures necessary to provide the incremental capacity, the requested capacities will not be available before the Gas year 2027/28. This results in the following offer level:

Period from	Period to	Free available capacity considering 20 % reservation quote; kWh/h	Incremental capacity considering 20 % reservation quote; kWh/h
01.10.2027	01.10.2042	0	2,000,000

Table 1: Offer Level

The incremental capacity will be offered bundled in full amount with the existing capacity of Energinet for the duration 01.10.2027 until 01.10.2042.

## 3. Alternative Allocation Mechanism

Not applicable.

## 4. Information regarding the processing of received statements relating to the project application

During the consultation period of the technical study four statements were received.

The statements criticize that Entry capacity that was offered at the Ellund network point on the German side in the past was reduced to zero. The exclusive offer of only interruptible Entry capacity on the German side is feared to have negative implications on the Danish market. Price differences and trading opportunities would be affected. In addition, it is criticized that long-term capacity bookings are necessary to confirm the incremental capacity project whereas the gas markets continuously develop towards short-term capacity bookings. It is doubtful that market participants would bear this risk. Furthermore, the TSO’s assumption that the initially reserved incremental capacity would not be booked at a later point in time in a significant amount was criticized. It is admitted that the completion of the Baltic Pipe would reduce the incentive to transport to Germany, but it is still necessary to offer transport capacity on a firm basis in order to further align the price level on the European trading markets and to be attractive for trading.

No comments were made on any further content of the consultation document.

The TSOs have critically examined the comments and respond as follows.

1. The Entry capacity was reduced to zero before the beginning of the Incremental Capacity Process 2019. This was done in the course of a demand-based capacity reallocation during the German NEP 2018 and NEP 2020 process. The German TSOs involved in the process, which does not include Energinet agreed on the reduction and it was subsequently published. During the national consultation of the NEP 2018 and 2020 which was carried out in accordance with Section 15a EnWG, the market did not comment on this capacity reduction. In addition, the German TSOs assess that the maintenance work on the Tyra platform and the start of construction of the Baltic Pipe did not indicate any demand for firm Entry capacity at the market area border from Denmark to Germany.
2. Recital 11 of the COMMISSION REGULATION (EU) 2017/459 of 16 March 2017 ("NC CAM") states that "A streamlined and harmonized Union-wide process for the offer of incremental capacity is necessary to react to possible market demand for such capacity" and that "Such a process should consist of regular demand assessment followed by a structured phase of design and allocation, based on effective cooperation between transmission system operators and national regulatory authorities across Union borders". It also explains that "any investment decision to be taken further to the assessment of market demand for capacity should be subject to an economic test to determine the economic viability." As reason for this is stated that "[...] network users demanding capacity assume the corresponding risks associated with their demand to avoid captive customers from being exposed to the risk of such investments." Such a risk would be for example the increase of the general network fees applicable to all network users if expected future bookings of incremental capacity which were considered within the economic test ultimately would not occur. This would mean that also captive network users would have to finance investments made for the creation of the incremental capacity.

When carrying out the incremental process and when processing the capacity demand indications received the involved TSOs are bound to the regulations of NC CAM, including also the stated recitals. The received statements did not include verifiable evidence like e. g. studies for the assumed higher bookings of incremental capacity. For this reason the input variables for the economic test, in particular estimated bookings of reserved incremental capacity and the f-factor, will remain unchanged.

However, the latest demand assessment conducted by Energinet, including the latest production prognosis for the Tyra platform, which shall be reinstalled in summer 2022,

shows a expected market demand for firm capacity in the southbound direction, at the level between 1,5-2,5 GWh/h, starting from Q4 2022.

- Recital 4 of the COMMISSION REGULATION (EU) 2017/459 of 16 March 2017 (“NC CAM”) states that “Bringing about effective competition between suppliers from inside and outside the Union requires that they are able to flexibly use the existing transmission systems to ship their gas according to price signals. Only a well-functioning network of interconnected transmission grids, offering equal access conditions to all, allows gas to flow freely across the Union.”

Based on the above headed obligations, on the fact that the entry capacity reduction was a result of a national process, on the latest demand assessment done by Energinet and on the comments received from market participants during the consultation, the TSOs involved will consider the demand beyond the incremental capacity process. Therefore, the TSO’s involved – at least Energinet and GUD - will conclude an agreement until 15th December 2020 to use reasonable endeavors to offer firm entry capacity from the Danish market area towards THE. Hence the TSOs involved will evaluate the demand for capacity at the IP Ellund and thereby will include the demand for capacity at other entry points in their analyses as well.

## 5. Provisional Timeline

All above mentioned projects will be initialized after the auction in July 2021. All technical measures will be ready for operation at 1<sup>st</sup> of October 2027 if the economical test is passed after the auction.

The following steps of the incremental process can be described as follows:

Start Date	End Date	Description
10.08.2020		Publication of the consultation documents
10.08.2020	10.09.2020	Public consultation
10.09.2020	08.10.2020	Planning of the offer levels by the TSOs in close cooperation with the NRA
09.10.2020		Submission of the project proposal to the NRA
09.10.2020	06.04.2021	Processing of the project proposal by the NRA
07.04.2021		Approval and publication of the required parameters by the national regulatory authorities pursuant to Art. 28 (1) NC CAM
08.04.2021	04.05.2021	Adaptation of the offer levels by the TSOs in consideration of the requirements of the NRA
05.05.2021		Publication of the approved parameters, the capacity products and the template of the contract(s) for the capacities offered within the framework of the network expansion project
05.07.2021		Annual auction/Economic test

Table 2: Provisional Timeline Incremental Capacity process

The stated dates have provisional character and are therefore subject to change.

If the economic test was positive, the project will feed into the national development process for the national development plan NEP Gas 2022-2032 and will be considered in its scenario framework and the (national) modelling.

Regarding the technical measures in the GUD network the following provisional timeline is available:

Subproject	Start	Period	Description
Reversal compressor station Quarnstedt	Oct 23	3 months	Project initiation
	Jan 24	4 months	Detail Engineering
	May 24	7 months	Applications and approval
	Dec 24	4 months	Tender and order placement
	Dec 24	6 months	Order/Delivery
	Jun 25	6 months	Assembly/Construction
	Dec 25		Commissioning
	Dec 25	4 months	Project conclusion/completion
Looppipeline Heidenau - Achim	Aug 21	3 months	Project initiation
	Nov 21	6 months	Detail Engineering
	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

Table 3: Provisional Timeline Technical measures

In addition to the expansion measures in GUD network, further extensive expansion measures are necessary to realize the requested incremental capacity (see 1 project proposal). Details of the provisional timeline of the technical projects can be found in the published project proposals.<sup>1</sup>

## 6. Additional General Terms and Conditions

The draft of the additional GT&C is as Appendix 2 attached to this document. These GT&C do only apply for the German side of the border.

<sup>1</sup>Download via <https://www.fnb-gas-capacity.de/en/cycles/2019-2021-incremental-capacity-cycle/approval-publication/> (project application Poland (TGPS) - THE; project application Russia - THE (Lubmin II); project application Russia -THE (Greifswald); project application TTF - THE)

## 7. IND and RP according NC TAR

Since there is a floating price regime in Germany, the fixed price is not applicable.

## 8. F-Factor

According to Article 27 (3) NC CAM the approval of the project application shall cover the level of user commitments, expressed as an estimate of the f-factor in accordance with Article 23.

The f-factor for each offer level shall be set by the national regulatory authority, taking into account the following (Article 23 (1) NC CAM):

- a) the amount of technical capacity set aside in accordance with Article 8(8) and (9);
- b) positive externalities of the incremental capacity project on the market or the transmission network, or both;
- c) the duration of binding commitments of network users for contracting capacity compared to the economic life of the asset;
- d) the extent to which the demand for the capacity established in the incremental capacity project can be expected to continue after the end of the time horizon used in the economic test.

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 (following “BNetzA Tool”<sup>2</sup>). The relevant parameters of the BNetzA Tool pre-filled with the data reflecting this incremental capacity project are detailed in an Appendix to this document.

The BNetzA Tool includes mathematical assessment of a possible f-factor according to points a), c) and d). The f-factor is calculated as rate of the present value of binding commitments of network users for contracting capacity within the time horizon of the first yearly capacity auction, in which the incremental capacity has been offered, according to Article 22 (1) (a), compared to the present value of all expected commitments of network users for contracting respective capacity. The BNetzA Tool uses the last known reference price which is also used regarding the respective year as a respective estimated reference price according to the Article 22 (1) (a) (i) NC CAM. Since the calculation of the increase in the allowed revenue of the transmission system operator associated with the incremental capacity included in the respective offer level does not take inflation into account, the inflation index of the reference prices was also set at 0%.

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<sup>2</sup> To be found at:

[https://www.bundesnetzagentur.de/EN/Areas/Energy/Companies/GridExpansion/Gas/IncrementalCapacities/IncrementalCap\\_node.html](https://www.bundesnetzagentur.de/EN/Areas/Energy/Companies/GridExpansion/Gas/IncrementalCapacities/IncrementalCap_node.html)

The most recent reference price known at the time of preparing the consultation document was provided in the draft of the BNetzA decision REGENT 2021. The published reference price amount to 3.78 EUR/(kWh/h)/year.

With the decision of BNetzA regarding REGENT 2021, published on 11<sup>th</sup> September, most recent reference price of the entry-exit system Trading Hub Europe for the year 2023 amount to 3,73 EUR/(kWh/h)/year. This reference price was used in the preparation of the project application at the request of BNetzA. This reference price is only used for the economic test and does not become part of the contract.

The assumptions regarding the booking of incremental capacity are explained below.

The f-factor proposed as follows:

The TSOs involved in the project assume that the incremental capacity offered in the capacity auction for yearly products in July 2021 for the period GY 2027/2028 to 2041/2042 will be booked in full amount of 2.000.000 kWh/h to pass the economic test.

- a) Incremental capacity set aside in accordance with Article 8 (8) CAM NC and assessed in-line with the currently valid decision from BNetzA BK7-15-001 (KARLA Gas) amounts 20% of the technical incremental capacity. The capacity set aside is 500,000 kWh/h.

The involved TSOs GUD and OGE do not anticipate significant bookings of the reserved capacity at a later point of time.

In an analysis of the future supply situation in Denmark from 2019 to 2040<sup>3</sup>, the Danish grid operator energinet concludes that from 2023 on approx. 1,0 bcm will be available for export to Germany from a balance point of view. In the forecast, this amount will decrease to 0 bcm by 2038. As it is assumed that the offered incremental capacity in the amount of 2,000,000 kWh/h will be booked completely in the 2021 annual auction, the booked incremental capacity would be sufficient to cover the estimated export potential until 2038, even if a balance prognosis cannot be compared directly to capacity bookings. In the opinion of the TSOs involved, the completion of the Baltic Pipe in 2022, which connects Europipe II via Denmark to Poland, will also significantly reduce the incentive to book the reserved capacity. The involved TSOs estimate that bookings of the reserved capacity would only be made to a limited extent if there were short-term arbitrage opportunities between the DK and THE market areas and the use of already booked capacity on the Baltic Pipe for onward transport to Germany was cheaper than booking of the entry capacity at the Dornum terminal (Europipe II landing point in Germany).

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<sup>3</sup> Compare REPORT SECURITY OF GAS SUPPLY 2019, page.35 following, published by energinet.

For the reasons mentioned, the TSOs involved in the project assume that no significant bookings of the reserved capacity can be expected. In respect to the calculation of the f-factor booked reserved capacities are considered in the amount of 0 kWh / h.

During the consultation process, the market did not provide any valid arguments for an adjustment of the forecast.

- b) Additional relevant positive or negative external effects of the project are not known to the involved TSOs.
- c) According to Article 11 (3) when offering incremental capacity, the offer levels may be offered in yearly capacity auctions for a maximum of 15 years after the start of operational use.

For the period of GY 2027/2028 to GY 2041/2042 it is assumed – as discussed before – that the incremental capacity offered in the auction for yearly products will be fully booked.

Economic life of the asset was assumed in-line with the regulatory as well as ordinary depreciation period. Since the investment mainly concerns the construction of new pipelines, the regulatory depreciation period was set according to Attachment 1 to § 6 (5) of “Gasnetzergeldverordnung” (GasNEV) for pipelines at 55 years. The start of operational use is foreseen for the year 2027, the last year of depreciation is 2082. For the period from 2042/43 to 2081/82 and beyond it is assumed that no significant booking of the incremental capacity will be made. In addition to the reasons mentioned under a), the significant decline in the production of the Tyra field<sup>4</sup> must also be mentioned here, so that, in the opinion of the TSOs involved, only short-term bookings will be made to realize arbitrage opportunities during this period.

During the consultation process, the market did not provide any valid arguments for an adjustment of the forecast.

- d) The time horizon of the economic life of the asset and the economic test is 2082. No bookings were considered after GY 2042/43.

The f-factor calculated for the offer level based on the described assumptions is 1,0. The involved TSO hereby suggest this factor for the economic test.

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<sup>4</sup> Compare REPORT SECURITY OF GAS SUPPLY 2019, page.35 following, published by energinet.

## 9. Economic test

As six projects for incremental freely allocable capacity are considered in this incremental capacity cycle, there are as already described 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 and the individual necessary measures is not expedient. The procedure that the TSOs have agreed on to map all possible booking scenarios is described in the following.

In total, incremental capacity is requested at five market area borders in the current cycle. As a result, offer levels can be booked in the current cycle for the following projects:

1. Poland TGPS
2. Russian Federation (in an alternative allocation mechanism)
3. The Netherlands
4. Russian Federation/ Greifswald (Capacity Upgrade)
5. Russian Federation/ Lubmin II (Capacity Upgrade)
6. Denmark

There is an offer level for each of these six projects. Each of the offer levels can be booked independently from the others and can pass the economic test. As a result, all possible combinations of positive and negative economic tests are possible. For which of the above stated projects capacity will be bindingly requested will only be clear after the annual auction in 2021, respectively after the evaluation of the results of the alternative allocation mechanism at the market area border RU-THE.

To ensure efficient network expansion, the TSOs have determined the necessary expansion measures individually for every possible request scenario. An overview of all 47 possible combinations is given in Appendix 1. The costs of a necessary expansion measures, including operating costs, are allocated to the single requests which are causing this measure in relation to the particularly requested capacity. The present value of the sum of these pro rata costs for individual measures finally equals the allowed increase of the revenue cap (hereinafter "EOG"), which will then be used in the economic test of the specific scenario.

For each single request, there are 24 scenarios of possible combinations with the additional requests at the other market area borders. Each of these scenarios includes the following specific components, which are listed in Appendix 3:

1. f-factor
2. present value of the estimated increase of the revenue cap
3. mandatory minimum premium



When carrying out the economic test with the tool provided by BNetzA, first it is necessary to determine which of the 47 booking scenarios is the relevant one in order to then subsequently use the three scenario specific components stated above.

## **10. Received additional Demand Indication**

After the deadline, one additional non-binding demand indication was received. In accordance with the conditions for participation in the process for incremental capacity by the transmission system operators concerned and in accordance with the requirements specified in Article 26 (7) of Regulation (EU) 2017/459 (NC CAM), this non-binding demand indication is not taken into account in the current process, but in the next planned market analysis that will start after the annual auction in 2021.

## **11. Impact on Usage of Gas Infrastructure**

No negative impact is expected on the usage of the existing gas infrastructure in Germany.

## **12. Approval application**

Energinet, OGE and GUD apply to Bundesnetzagentur and the Danish Utility Regulator for approval of the contents shown for the continuation of the conduct of the procedure for incremental capacities pursuant to NC CAM.

### III. Contact Information

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## Appendix 1 Scenario-matrix

1: economic test is positive

Empty cell: economic test was not positive

Scenario	Denmark	Russia	The Netherlands	Greifswald Upgrade	Lubmin II Upgrade	Poland Mallnow
1	1					
2a			1			
2b		1	1			
3				1		
4					1	
5						1
6a	1		1			
6b	1	1	1			
7	1			1		
8	1				1	
9	1					1
10a			1	1		
10b		1	1	1		
11a			1		1	
11b		1	1		1	
12a			1			1
12b		1	1			1
13				1	1	
14				1		1
15					1	1
16a	1		1	1		
16b	1	1	1	1		
17	1			1	1	
18	1				1	1
19a	1		1		1	
19b	1	1	1		1	
20a	1		1			1
20b	1	1	1			1
21	1			1		1
22a			1	1	1	
22b		1	1	1	1	
23a			1		1	1
23b		1	1		1	1

Scenario	Denmark	Russia	The Netherlands	Greifswald Upgrade	Lubmin II Upgrade	Poland Mallnow
24a			1	1		1
24b		1	1	1		1
25				1	1	1
26a	1		1	1	1	
26b	1	1	1	1	1	
27	1			1	1	1
28a	1		1		1	1
28b	1	1	1		1	1
29a	1		1	1		1
29b	1	1	1	1		1
30a			1	1	1	1
30b		1	1	1	1	1
31a	1		1	1	1	1
31b	1	1	1	1	1	1

## **Appendix 2: Supplementary terms and conditions for the German side of the border**

*Published contracts and other documents are legally binding exclusively in the German language version. Translated contracts and documents such as these General Terms and Conditions serve for informational purposes only. Therefore, the German text of the General Terms and Conditions shall take precedence over any translated version in case of a contradiction between the German and the translated text. Any translated version may not be used for interpretation of the German version.*

### **Supplementary Terms & Conditions of XXX for Incremental Capacity Contracts effective from xx xxxx xxxx**

These Supplementary Terms & Conditions of Business (set out herein ('STCs')) shall apply in addition to the General Terms & Conditions of XXX ('TSO') dated XX XXXX XXXX ('GTCs') and provide modifications and additions for marketing incremental capacity ('Incremental Capacity') as defined in Article 3 (1) of Regulation (EU) 2017/459 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013 ('NC CAM').

#### **Section 1 General Background, Scope of Application**

1. The TSO has planned and consulted projects for incremental capacity acc. to Article 27 et. seq. NC CAM based on the market demand assessment at the interconnection points mentioned therein. The German national regulatory authority Bundesnetzagentur ("Federal Network Agency") has approved these projects pursuant to Article 28 of the NC CAM and published the corresponding decisions. The incremental capacity will, be offered together with the available capacity ('existing capacity') as bundled standard capacity products at a harmonized offer level in the annual yearly capacity auction, in accordance with Art. 29 NC CAM.
2. These STCs apply to all entry or exit contracts that contain incremental capacities. If an entry or exit contract contains both incremental capacity as well as existing capacity, these Supplementary Terms and Conditions shall also apply to the existing capacity.

3. As long as no provisions that supplement or differ from the General Terms and Conditions of Service are concluded in these STCs, the provisions set out in the TSO's GTCs shall also apply to incremental capacity.

## **Section 2 Conclusion of Contract**

1. An entry or exit contract for incremental capacity will be concluded between the TSO and a shipper ("Shipper") in accordance with section 1 paragraph 2 of the GTCs once the Shipper has been allocated Incremental Capacity, subject to the provision that, in accordance with sentence 3 of Article 17(21) NC CAM, the shipper will be allocated incremental capacity according to the offer level offering the largest amount of capacity that resulted in a positive economic test according to Article 22 (3) NC CAM.

2. The allocation results will be published by the TSO in accordance with Article 11 (10) NC CAM.

## **Section 3 Tariffs**

1. The term "tariff" within the meaning of section 25 of the GTCs shall mean the future tariffs as determined in accordance with regulatory requirements or as approved by the relevant regulatory authority and shall include all other fees or charges or elements thereof specified in section 25 paragraph 1 of the GTCs, including auction premiums, minimum mandatory premiums pursuant to Article 33 of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas, and any future levies applicable during the relevant contract period as published in the TSO's price sheet on the TSO's website. "contract period" shall mean the period of time during which TSO's and Shipper's rights and obligations under the relevant entry or exit contract as set out in sections 3 and 4 of TSO's GTCs are in effect.

2. For the purposes of auctions, the TSO will use its current specific capacity tariff as determined in accordance with regulatory requirements and as applicable at the time of each auction. In no event, however, shall the current specific capacity tariff of the TSO in accordance with sentence 1 of this paragraph be construed as constituting an agreement between the parties on the capacity tariff payable during the relevant contract period, and it shall not be deemed to provide any indication as to the level of the tariffs within the meaning of paragraph 1 above actually payable by and to be charged to the shipper during the relevant contract period. The specific capacity tariff payable during each contract period shall be agreed between the TSO and the shipper for the period from 1 October to 31 December in any relevant year and from 1 January to 30 September in any relevant year, respectively, based

on the future tariffs as determined in accordance with regulatory requirements or as approved by the relevant regulatory authority. For the avoidance of doubt, the publication of new tariffs shall not be construed as a tariff change within the scope of sentence 1 of section 25 paragraph 3 and section 25 paragraph 4 of the GTCs. Notwithstanding sentence 1 above, any auction premium payable as a result of an auction shall be deemed to have been agreed between the TSO and the shipper in the framework of the auction.

3. In deviation from section 25 paragraph 4 of the GTCs, the shipper shall have the right to terminate any entry or exit contract following publication of the tariffs applicable during the respective contract period, which is calculated and contracted in accordance with paragraph 1, with effect for the following contract period by giving at least 10 business days' prior notice ahead of the start of that following contract period, provided the specific capacity tariff determined and agreed pursuant to paragraph 1 above exceeds the maximum permitted tariff as stated for the contract period in question in annex 1 to the STCs set out herein ('Shipper's exceptional termination right.'). The shipper's exceptional termination right pursuant to sentence 1 of this paragraph shall only apply for the respective contract period as defined in paragraph 1 above to which the published tariffs apply.

4. If the shipper has the right to terminate the respective entry or exit contract for any contract period under paragraph 3 above, the shipper may terminate that entry or exit contract for that entire calendar year or in part as measured in relation to the amount of capacity the shipper has booked thereunder. In case the shipper wishes to terminate an entry or exit contract in part as provided in sentence 1 of this paragraph, the shipper must reduce the booked amount of capacity uniformly for the respective contract period.

#### **Section 4 TSO's and Shipper's Rights and Obligations**

1. The TSO shall take all commercially reasonable measures necessary

a. to ensure that the incremental capacity allocated to the shipper will be duly made available to the shipper by the start of the contract period, and

b. to coordinate the commissioning of the infrastructure required for the incremental capacity with adjacent network operators and to the extent necessary.

2. In determining whether a measure can be deemed commercially reasonable within the meaning of paragraph 1 above the parties shall in particular, without limitation, give consideration to the required public permits and/or approvals and the additional requirements, ancillary provisions and instructions (if any) imposed or given by the competent authorities as well as the applicable regulatory framework and the generally accepted

principles for compensating owners and third parties holding rights of use as developed on the basis of the applicable case law.

3. If during the course of the network development project carried out under the responsibility of TSO it should become apparent that any incremental capacity allocated to the shipper cannot be made available at the agreed interconnection point by the start of the relevant contract period but only at a later date, then the booked entry and exit contracts will be reduced in accordance with section 18 of the GasNZV pro rata to the part of the existing capacity, provided that the entry or exit contract concerned contains both incremental capacity as well as existing capacity. Once the TSO has obtained reliable information about any such delay, the TSO shall notify the shipper thereof without undue delay in a text form specifying on which date the incremental capacity can be provided and to which extent the booked existing capacity can be provided at the beginning of the contract period of the entry or exit contract. For the time as the delay continues both TSO's obligation to make incremental capacity available to the shipper and the shipper's obligation to pay the agreed tariffs for the part of the entry or exit capacity, which is affected by the delay, shall be suspended. If the TSO is not responsible for the delay, the shipper shall be obliged to participate in the auctions at the relevant interconnection point as soon as possible in order to book capacity immediately after the initial marketing period of the incremental capacity in accordance with Article 11 paragraph 3, second sentence NC CAM, as appropriate to the size and the period of the entry or exit contracts affected by the delay. The obligation of the shipper is also considered fulfilled if the incremental capacity is assigned to a third party. Neither Party shall have any further claims or remedies against the other party in relation thereto.

4. In the event that any capacity to be provided at any other interconnection point upstream or downstream from the respective interconnection point operated by the TSO, is not available by the start of the relevant contract period, this shall not release the shipper from any of its contractual obligations. In particular, without limitation, the shipper shall continue to be obliged to pay the tariffs agreed under the relevant entry or exit contract. In this case, the shipper shall not be entitled to rescind the entry or exit contract in question or to terminate it in any other way. The upstream and downstream capacities at interconnection points within the meaning of this number 4 sentence 1 also include the capacities on the other side of the respective interconnection point at which bundled marketing takes place. In this case, the obligation of the shipper to fulfill the contract deviates from section 8 paragraph 6 of the GTCs.

5. In particular, without limitation, the shipper shall have no right under paragraph 3 and 4 above to invoke sections 313 (frustration of contract) or 314 (termination for cause of contracts creating continuing obligations) of the German Civil Code or section 31 paragraph 5 GTCs (Suspension or amendment of contractual obligations).



### Appendix 3: Parameters of the economic test for the scenarios

Result of the economic test for project...

Scenario	Denmark	Russia	The Netherlands	Greifswald Upgrade	Lubmin II Upgrade	Poland Mallnow	Allowed increase of the revenue cap in EUR	Mandatory minimum premium EUR/kWh/h/a	f-Factor
1	1						734.887.335	39,52	1
6a	1		1				311.945.009	14,63	1
6b	1	1	1				311.945.009	14,63	1
7	1			1			282.798.943	12,92	1
8	1				1		327.784.240	15,57	1
9	1					1	314.639.942	14,79	1
16a	1		1	1			242.134.740	10,52	1
16b	1	1	1	1			242.134.740	10,52	1
17	1			1	1		248.603.005	10,91	1
18	1				1	1	231.228.942	9,88	1
19a	1		1		1		265.797.580	11,92	1
19b	1	1	1		1		265.797.580	11,92	1
20a	1		1			1	242.952.517	10,57	1
20b	1	1	1			1	242.952.517	10,57	1
21	1			1		1	222.086.012	9,34	1
26a	1		1	1	1		197.019.173	7,87	1
26b	1	1	1	1	1		197.019.173	7,87	1
27	1			1	1	1	185.689.156	7,20	1
28a	1		1		1	1	205.806.081	8,39	1
28b	1	1	1		1	1	205.806.081	8,39	1
29a	1		1	1		1	204.790.859	8,33	1
29b	1	1	1	1		1	204.790.859	8,33	1
31a	1		1	1	1	1	189.649.163	7,44	1
31b	1	1	1	1	1	1	189.649.163	7,44	1