

Project proposal for the Incremental Capacity Process 2017 for the market border area between GASPOOL and TTF

By
Gasunie Transport Services
B.V.

Report
Project proposal for the Incremental Capacity Process 2017 for the market border area
between GASPOOL and TTF

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1 Introduction

The new version of the Network Code on Capacity Allocation Mechanisms in Gas Transmission Systems (Regulation 2017/459) (NC CAM) requires the introduction of an EU-wide harmonized process for the inventory of market demand for incremental capacity by transport system operators (TSOs).

NC CAM states that each odd-numbered year, immediately after the start of the annual yearly capacity auctions, the TSOs shall cooperate in a market demand assessment and consequent activities such as a technical study, consultation and project proposal, starting in 2017.

The first market demand assessment has resulted in one viable non-binding demand indication from Gazprom Export for incremental capacity on the border between GASPOOL and TTF.

Table 1. Aggregated non-binding demand indication.¹

From "EXIT CAPACITY"	To "ENTRY CAPACITY"	Gas year	Amount kWh/h	Request is submitted to other TSOs	Additional Information
GASPOOL	TTF	2025/26	2,638,255	No	GASPOOL exit: <i>Restricted allocable firm capacity from the border Russian Federation/GASPOOL</i> TTF Entry: <i>Firm capacity</i>
GASPOOL	TTF	2026/27 - 2029/30	5,276,509	No	GASPOOL exit: <i>Restricted allocable firm capacity from the border Russian Federation/GASPOOL</i> TTF Entry: <i>Firm capacity</i>
GASPOOL	TTF	2030/31 - 2039/40	11,872,146	No	GASPOOL exit: <i>Restricted allocable firm capacity from the border Russian Federation/GASPOOL</i> TTF Entry: <i>Firm capacity</i>

¹ In the letter accompanying the inquiry form the shipper clarified that „Exit Bunde/Oude Statenzijl capacities in the amount of up to 11 872 MWh/h (circa 9 bcm/year (20°C)) starting from 2030 go beyond all the existing capacities at these exit points.“ During further clarifications the shipper also specified, that the whole requested demand for the time period 2025/26-2039/40 to be considered as additional to the existing technical capacity. Therefore the nonbinding demand indication for the purposes of this assessment consists of two parts: non-binding demand indication for incremental capacity, as identified in the table, and non-binding demand indication for existing capacity in the amount of difference between booked and available technical capacity on the GASPOOL-side of the border.

In the demand assessment phase, the GASPOOL and TTF TSO's have analyzed whether the existing capacity was sufficient to accommodate the demand indication. As the sum of both booked capacity and the maximum requested incremental capacity of 11,872,146 kWh/h is higher than the available technical capacity at the market area border, an incremental capacity project was started. Please see the Demand Assessment Report TTF-GASPOOL and the Consultation Document for the Market Area Border Between GASPOOL and TTF for more information.

The demand indication has been used to conduct a technical study to identify the possible technical measures to increase capacity at the market area border, the above mentioned Consultation and the present project proposal. This project proposal will be submitted to the Dutch regulatory authority, the Autoriteit Consument & Markt (ACM), to request approval for continuation of the incremental capacity process 2017. The GASPOOL TSOs will submit a project proposal for the measures on the German side of the border to the German regulator, Bundesnetzagentur (please see Annex II).

2 Technical information

At present, the GASPOOL and TTF market areas are connected via two physical L-gas connections and two physical H-gas connections at Oude Statenzijl: one connection with GUD and one connection with GASCADE, both of which are too small to honor the demand indication. In addition, at Emden the H-gas systems of GTS and GUD are relatively close, although GTS only has a physical connection with GASSCO, not with GUD.

The network technical capacity is the volume of gas that the network can handle at a given time. The network capacity from the market area border to the rest of the Netherlands is sufficient to accommodate the capacity requested in the demand indication. The requested capacity in the demand assessment stage is in line with the capacity and timing foreseen in the Dutch "Netwerk Ontwikkelingsplan 2017" (NOP 2017). The capacity is requested slightly later than foreseen in the TYNDP 2017 (TRA-N-873).

Based on the non-binding demand indication, the subsequent contact with Gazprom Export and the gas systems of GUD, GASCADE and GTS, three options have been explored to accommodate the requested capacities:

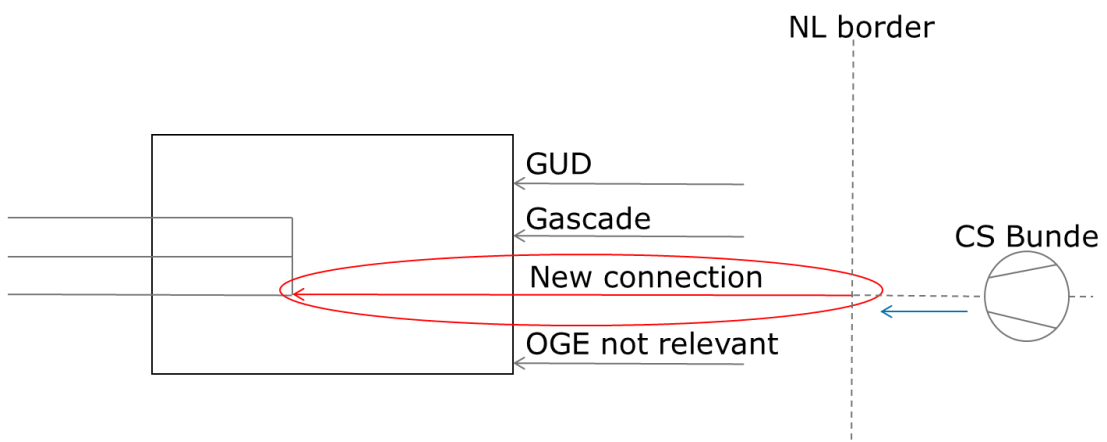
1. A new connection between GUD and GTS at Oude Statenzijl;
2. A new connection between GUD and GTS at Emden;
3. Transport via NCG to the Netherlands.

1. A new connection between GUD and GTS at Oude Statenzijl

A new connection between GUD and the GTS system at Oude Statenzijl.

Compression/reduction and metering will take place at compressor station Bunde (either by GASCADE or GUD), total costs of the new connection will be approximately €7.1 million (cost estimate with an accuracy of $\pm 25\%$ at a P50 level). The price level includes an indexation to 2024. The cost estimate is valid for both new offer levels because the measures on the Dutch side are the same for both offer levels.

Figure 2. Schematic representation of Oude Statenzijl, new connection.



The German TSO's have indicated that their cost will be approximately €250 million when they need to deliver the requested capacity at Oude Statenzijl. For more information concerning the German measures see Annex II.

2. A new connection between GUD and GTS at Emden

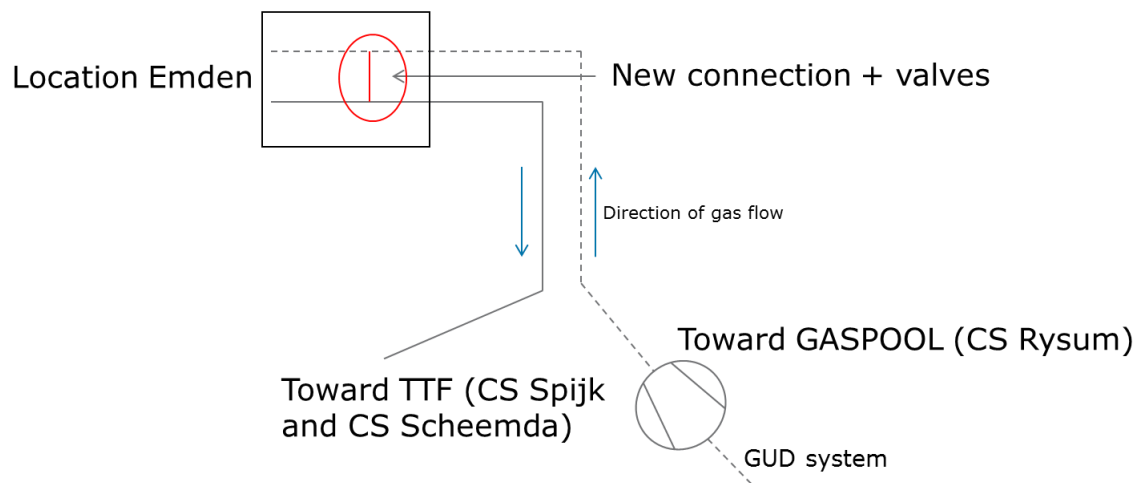
At present, both the GUD and GTS systems are connected with GASSCO at Emden to import Norwegian gas. Therefore, the respective systems are relatively close. In order to realize the requested capacity at the border a new system connection will be constructed between GASPOOL (GUD) and TTF at Emden. Figure 1 gives a schematic representation of the possible new situation at the Emden area.

In case of a new connection at Emden, GUD will compress the gas at compressor station (CS) Rysum, gas flow metering will take place at CS Emden and therefore will be performed by GUD.

The system connection consists of:

- A short pipeline at the GTS location
- Isolation coupling
- Remotely operated actuator on an existing valve
- Facilities for telemetry

Figure 1. Schematic representation of Emden area.



Total costs of the new connection between GUD and GTS at Emden will be approximately €0.5 million (cost estimate with an accuracy of $\pm 25\%$ at a P50 level). The price level includes an indexation to 2024.

The German TSO's have indicated that their cost will be approximately €5 million when they need to deliver the requested capacity at Emden. For more information concerning the German measures see Annex II.

3. Transport route via NCG to the Netherlands

Based on German legislation (§ 21 GasNZV), no later than 1 April 2022 the two German market areas NCG and GASPOOL need to be merged in order to create one German market area. Unfortunately, at present there is not a joint capacity model for NCG and GASPOOL

and, according to the German TSO's, it's not possible to create one in the current incremental process. Hence, no measures were determined for transport from GASPOOL via NCG to the Netherlands. For more information, please see Annex II for the German project proposal.

Conclusion

Given the cost of the required measures on both sides of the border and the fact that one option cannot be researched, transport via GUD through a new connection between GUD and GTS at Emden, is the most cost efficient option.

GASCADE, GUD and GTS will continue to strive to accommodate the demand indication against the lowest possible costs.

Planning - art 28 (1) (c) NC CAM

The current indicative planning of the technical measures is given in the below table. The current indicative planning of the commercial measures is included in Chapter III Commercial and economic information, on page 11.

Table 2. Milestone planning.

Milestone	Date
Go/No-go decision	July 2019
Basic engineering	2020/2021 in alignment with GUD
Detail engineering	2021/2022 in alignment with GUD
Ordering materials	01-10-2023
Contracting	2024
Permit application	2024
Site Preparation	2024/2025
Start construction	01-02-2025
Ready for Operation	01-04-2025
Final Handover	15-09-2025

Measures to prevent/minimize delays – art 28 (1) (c) NC CAM

GTS takes the following measures to prevent delays:

- GTS maintains a list with potential future technical projects in order to keep track of the future workload and, in relation to that, the required personnel. Immediately after the finalization of the technical study, the project has been added to this list.
- The long lead materials (with longer delivery times) will be ordered well in advance of the construction phase.
- GTS will start well in advance with the project as the planning includes time to address possible setbacks such as soil pollution, the maximum lead-time for licensing etc.

GTS takes the following measures to minimize delays:

- Scaling up manpower (e.g. from one team working regular hours to shift work with two or three teams) and/or materials (e.g. from onsite fabrication to both onsite and offsite (pre)fabrication).

Gasunie Transport Services B.V.

- Rescheduling of project activities (e.g. in case of delayed permitting, part of the activities might be executed earlier whereas others are executed after the permit is granted).
- Reassignment of standardized materials from one project to another as long as it does not impact the planning of the former project negatively.

3 Commercial and economic information

Art 28 (1) of NC CAM prescribes that the project proposal shall contain the following commercial and economic information.

Offer levels – Art 28 (1) (a) NC CAM

According to article 3 (5) NC CAM an offer level means “the sum of the available capacity and the respective level of incremental capacity offered for each of the yearly standard capacity products at an interconnection point”. In contrast to the information in the consultation document, GTS and the German TSO’s will not offer a combination of existing and new capacity as incremental capacity, but will offer existing capacity in the regular auctions and incremental capacity in two offer levels in the incremental auctions. This is due to a new interpretation of NC CAM: in the initial interpretation incremental capacity could be offered on more than one interconnection point, in the new interpretation incremental capacity can only be offered on one interconnection point. As the TSO’s propose to build a new interconnection point, there is no existing capacity.²

Offer level I and II

Technical capacity and offer levels

As for GTS, one offer level would have sufficed as the technical measure is exactly the same for both offer levels. However, in order to accommodate the Demand Indication, GUD will need to build two sets of technical measures, one accounting to 7.3 GWh/h and one accounting to the full 11.9 GWh/h (please see the German project proposal for further information on the measures). Therefore, there are two offer levels, one of 7.3 GWh/h and one of 11.9 GWh/h for incremental capacity on the GPL-TTF border.

The technical measure on the Dutch side of the border consists of a new system connection with GASPOOL. All additional capacity which is generated by this measure will be offered to the market from the moment the system connection is realised, therefore the incremental capacity is higher than the requested capacity in the first two periods (2025/2026 and 2026/2027-2029/2030) of the demand indication.

Reserve percentages

The reserve percentages for offer level I and II differ for the GASPOOL and TTF market area. Art 8 (8) NC CAM prescribes that TSOs shall reserve at least 10% of the incremental technical capacity at the concerned interconnection point for short term auctions. GTS has proposed a reserve percentage of 10% to the Dutch regulator, ACM. ACM has accepted this proposal in decision ACM/17/031359. Due to national legislation, the German TSOs have to reserve an additional 10% of incremental capacity for short term auctions, resulting in a

² In Q1 2020 virtual interconnection points will be introduced. Aim of virtual interconnection points is to eliminate multiple connections between two market areas to facilitate flexible hub-to-hub trading for shippers. Therefore, in the future, incremental capacity concerns all interconnection points in the requested gas quality between two market areas and consists of both existing and new capacity. If, in the future, GTS can fully or partially accommodate the demand indication with existing capacity, it will take this option into account.

reservation percentage of 20% for incremental capacity. This difference in reserve percentage affects the amount of bundled capacity GTS can offer in the auction.

Article 19 (1) NC CAM states that on both sides of an interconnection point all firm capacity shall be offered as bundled capacity, in so far there is available firm or incremental capacity on both sides of the interconnection point. Hence, 80% bundled long term capacity, 10% unbundled long term capacity and 10% reserved for short term auctions.

Offer level I and II will be offered for a maximum of 15 years, from gas year 2025/2026 through 2039/2040, as prescribed by article 11 (3) NC CAM.

Table 3. Offer level I.

Offer level I (kWh/h)						
Period from	Period to	Technical capacity	Total offer level I	Bundled long term capacity (80%)	Unbundled long term capacity (10%)	Reserved for short term auctions (10%)
1-10-2025	30-9-2026	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2026	30-9-2027	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2027	30-9-2028	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2028	30-9-2029	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2029	30-9-2030	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2030	30-9-2031	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2031	30-9-2032	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2032	30-9-2033	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2033	30-9-2034	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2034	30-9-2035	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2035	30-9-2036	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2036	30-9-2037	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2037	30-9-2038	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2038	30-9-2039	11.900.000	7.300.000	5.840.000	730.000	730.000
1-10-2039	30-9-2040	11.900.000	7.300.000	5.840.000	730.000	730.000

Table 4. Offer level II.

Offer level II (kWh/h)						
Period from	Period to	Technical capacity	Total offer level II	Bundled long term capacity (80%)	Unbundled long term capacity (10%)	Reserved for short term auctions (10%)
1-10-2025	30-9-2026	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2026	30-9-2027	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2027	30-9-2028	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2028	30-9-2029	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2029	30-9-2030	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2030	30-9-2031	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2031	30-9-2032	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000

Offer level II (kWh/h)						
Period from	Period to	Technical capacity	Total offer level II	Bundled long term capacity (80%)	Unbundled long term capacity (10%)	Reserved for short term auctions (10%)
1-10-2032	30-9-2033	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2033	30-9-2034	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2034	30-9-2035	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2035	30-9-2036	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2036	30-9-2037	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2037	30-9-2038	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2038	30-9-2039	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000
1-10-2039	30-9-2040	11.900.000	11.900.000	9.520.000	1.190.000	1.190.000

Supplementary Terms and Conditions – Art 28 (1) (b) NC CAM

Attached in Appendix I the “General conditions for booking of Incremental Capacity” of Gasunie Transport Services B.V. are given. These general conditions supplement the Transmission Service Conditions of Gasunie Transport Services B.V. and shall be applicable to the incremental capacity that will be contracted by shippers.

Timeline – Art 28 (1) (c) NC CAM

The below table provides the timeline for the incremental capacity process 2017.

Table 5. Timeline incremental capacity process 2017.³

Start date	End date	Description
27.07.2017		Start of design phase
27.07.2017	19.10.2017	Technical studies by TSOs
19.10.2017		Publication of consultation documents
19.10.2017	19.12.2017	Public consultation
19.12.2017	15.02.2019	Planning of offer levels by TSOs in close cooperation with NRAs and submission of the project proposal to the NRA.
15.02.2019	15.04.2019	Approval and publication of the required parameters acc. to Art. 28 Para 1 NC CAM by NRAs
01.05.2019		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
1.7.2019		Annual auction/economic test

³ The German timeline for the Incremental Capacity Process 2017 contains an additional milestone (the adjustment of the offer levels according to NRA decision by the TSO) stemming from the difference in interpretation of the NRA mandate. Whereas ACM states that it should integrally approve or reject the project proposal, BNetzA maintains that it has the ability to conditionally approve the project proposal resulting in possible changes to e.g. offer levels.

Due to the attempts of the German TSOs and BNetzA to find a workable solution for the difference between the demand indication submitted by Gazprom Export and the capacity Germany is able to offer in both market areas, it was decided to submit the project proposal not before 1 September as was initially planned, but before 31 October. According to NC CAM, the NRAs have six months to consider the project proposal, which would mean that their decision will be published at the latest on 30 April 2019. As the TSOs need to submit the data at the latest one month before the actual auction, they have one month to prepare the auctions.

Parameters – Art 28 (1) (d) NC CAM

Present value of the binding commitments of network users for contracting capacity

The value of the user commitments is calculated based on the estimated reference prices and a potential auction premium and a potential mandatory minimum premium multiplied by the amount of contracted incremental capacity; or as the sum of a potential auction premium and a potential mandatory minimum premium multiplied by the amount of available capacity that was contracted in combination with the incremental capacity.

Based on the price level of surrounding IPs, the reference price is approximately 0,998 Euro/kWh/h/y⁴. GTS will not apply a mandatory minimum premium, a potential auction premium might be applied by PRISMA if the requested amount of capacity is higher than the amount of capacity on offer.

The expected value of all user commitments for the current INC project, based on a booking period of 15 years, is approximately €80 million (PV User Commitments) for offer level 1 and €130 million (PV User Commitments) for offer level 2.

Present value of the estimated increase in the allowed or target revenues

The calculated regulatory revenues of the investment (PV increased allowed revenues) are approximately €0.6 million.

F-factor

Within the economic test the f-factor describes the share of the present value of the estimated increase in the allowed or target revenue of the transmission system operator associated with the incremental capacity included in the respective offer level to be covered by the present value of binding commitments of network users for contracting capacity calculated.

The f-factor has to be determined for each individual project proposal. Based on the principle that the investment costs should be, as much as possible, covered by the project, GTS therefore suggests to use, as a basic principle, a f-factor of 1 unless the specific project gives cause to adjust the f-factor.

⁴ This is the reference price for 2019. The definitive reference price will be based on the tariff decision for 2020, to be taken by ACM in May 2019. This might result in changes with regard to the PV User Commitments revenues. The expected changes will have a minor influence on the outcome of the economic test.

The expected value of all user commitments for the current INC project, based on a booking period of 15 years, is approximately €80 million (PV User Commitments) for offer level 1 and approximately €130 million (PV User Commitments) for offer level 2. Therewith the PV of the User Commitments is much higher than the calculated regulatory revenues of the investment (PV increased allowed revenues) of approximately €0.6 million. As such GTS expects the value of the contractual commitments, based on the results of the annual yearly capacity 2019 auction, to exceed the estimated costs of the project. Therefore, the determination of the f-factor in this specific project is not a critical factor in the economic test.

According to Article 23 NC CAM the level of the f-factor may be influenced based on four parameters. Based on these parameters the ACM has decided to set the f-factor at 0.9 for the Incremental Capacity Process 2017, as laid down in decision ACM/17/031359. GTS proposes to use the f-factor of 0.9 as set by ACM.

Extended time horizon – Art 28 (1) (e) NC CAM

An extended time horizon beyond the allocation of 15 years after Ready for Operation (RFO) for contracting capacity is not required.

Alternative allocation mechanism – Art 28 (1) (f) NC CAM

Gasunie Transport Services B.V. did not receive any conditional demand indications and therefore did not request approval of the ACM, to use alternative allocation mechanisms.

Fixed price approach – Art 28 (1) (g) NC CAM

Gasunie Transport Services B.V. is not going to apply the fixed price approach according to Article 25 (1), sub b, ii Reg. 460/2017 (NC TAR) for this incremental capacity project, as a variable price system is applied in the Dutch system.

Economic test

Article 22 of NC CAM states that after the yearly auction has taken place and binding commitments of network users to contract capacity have been obtained, an economic test shall be performed for each offer level of an incremental capacity project. If the economic test has a positive outcome on both sides of an interconnection point for at least one offer level, the technical measures shall be built. If the economic test is negative, the incremental capacity project shall be terminated. Hence, it is very important that shippers book capacity in the regular auction of existing capacity and the two incremental offer levels. To ensure that shippers are aware that they are in the process of booking incremental capacity, the existing capacity and the two offer levels are labelled "incremental capacity" on PRISMA, the gas trading platform.

Based on article 22 NC CAM, the ACM has decided in decision ACM/17/031359 that the economic test shall be performed by GTS.

Appendix I

General conditions for booking of Incremental Capacity

1. General

- 1.1 These general conditions supplement the Transmission Service Conditions 2017-1 between Gasunie Transport Services B.V. ("*GTS*") and **shipper**, and its successors ("*TSC*"), and the *Dutch Network Code* as far as established by the Dutch energy regulator "Autoriteit Consument en Markt" pursuant to Article 12f of the Dutch Gas Act.
- 1.2 In the context of the *incremental capacity process* as prescribed in the Commission Regulation (EU) 2017/459 and pursuant to these general conditions, the TSC and the Dutch Network Code, *GTS* offers *incremental capacity* as firm **entry capacity** and/or **exit capacity** at **interconnection points** with a start date of 1 October 20xx in the annual yearly capacity auction of July 20yy of *PRISMA*; The Dutch energy regulator "Autoriteit Consument en Markt" has approved the project proposal for the *incremental capacity project* in its decision of XX-XX-XXXX;
- 1.3 These general conditions are applicable to *contracted incremental capacity*, in addition to the applicable *TSC* and the *Dutch Network Code*;
- 1.4 The provisions of the *TSC* shall apply to these general conditions as if the same were set out in these general conditions. If there is any inconsistency between any of the provisions of these general conditions and the provisions of the *TSC*, the provisions of these general conditions shall prevail.

2. Definitions

Expressions in italics and bold refer to expressions defined in Dutch in the Dutch Network Codes. Expressions in italics refer to expressions defined in these general conditions, the *TSC* or Commission Regulation (EU) 2017/459 . In these general conditions the following words and expressions have the denoted meaning:

- a. *Construction Phase*: the period between the annual yearly capacity auction of July 20yy of *PRISMA* and the *start date* of the contracted *incremental capacity*;
- b. *Contracted incremental capacity*: *incremental capacity*, including firm available existing capacity that is part of the offer level containing the *incremental capacity*, contracted by **shipper** as firm **entry capacity** and/or **exit capacity** at an **interconnection point** in the annual yearly capacity auction of July 20yy of *PRISMA*;⁵
- c. *(To) Endeavour*: an obligation to take commercially practicable actions and to incur reasonable associated costs as far as a *reasonable and prudent*

⁵ As mentioned in chapter 3, existing capacity is not part of incremental capacity in the current process. However, GTS aims to use these general conditions for booking incremental capacity also in future processes and therefore included existing capacity in the definition.

operator would do in similar circumstances, but excluding costs that – in the reasonable expectation of *GTS* – will not be included in the tariffs of *GTS* as established by the Dutch regulator “Autoriteit Consument en Markt” under article 82 of the Dutch Gas Act;

- d. *Start Date*: the first *Gas Day* of the period, as most recently adjusted by *GTS* in accordance with these general conditions, for which **shipper** has *contracted incremental capacity*;

3. Binding commitment in auction

- 3.1 **Shipper** enters into a binding capacity commitment by contracting *incremental capacity* as firm **entry capacity** and/or **exit capacity** at an **interconnection point** in the annual yearly capacity auction of July 20yy of *PRISMA*.
- 3.2 **Shipper** is committed to the *contracted incremental capacity* and is not allowed to cancel the *contracted incremental capacity* at any time, unless this is explicitly permitted under these general conditions or the *TSC*.
- 3.3 The commitment of *GTS* to the *contracted incremental capacity* is subject to positive outcomes of the *economic tests* on both sides of the *interconnection point* for the relevant offer level according to article 4 of these general conditions.

4. Economic tests

- 4.1 In addition to the obligations regarding the *economic tests* as stated in the NC CAM all *contracted incremental capacity* that, as a result of the *economic tests*, will not be part of an *incremental capacity project* shall automatically be terminated, without the obligation for *GTS* to pay any damages or costs to **shipper**. In such case, all rights and obligations of *GTS* and **shipper** with respect to the terminated *contracted incremental capacity* will lapse.

5. Rights and obligations of *GTS* in the Construction Phase

- 5.1 After notification that the *economic tests* have a positive outcome for an offer level on both sides of the *interconnection point* and that an *incremental capacity project* shall be initiated, *GTS* shall aim to make available at the latest on *Start Date* the *contracted incremental capacities* in compliance with the requirements of these general conditions.
- 5.2 If *GTS* is unable to make the *contracted incremental capacity* available to **shipper** on *Start Date*, *GTS* shall Endeavour to make the *contracted incremental capacity* available within a reasonable time thereafter.
- 5.3 In determining whether a measure can be deemed commercially reasonable within the meaning of 2.C above *GTS* 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.

- 5.3 If *GTS* is unable to make the *contracted incremental capacity* available in time, or if the adjacent TSO is unable to make the relevant *incremental capacity* at the other side of the *interconnection point* available in time, as a sole remedy the performance of **shipper's** corresponding obligations on both sides of the border shall be delayed accordingly.
- 5.4 *GTS* shall immediately inform **shipper** in writing if a delay of the *Start Date* becomes apparent.

Appendix II

Project proposal of neighboring network operators

Project application for approval of the procedure, initiated in 2017, for incremental capacities at the border between the market areas GASPOOL and TTF

15 February 2019

Gasunie Transport Services B.V.

This project proposal was prepared by the following companies within the framework of the initiated procedure for incremental capacities:

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The logo for Gasunie, featuring the word "gasunie" in a lowercase, sans-serif font. The letters are grey, with the "u" and "n" having a distinctive shape where the top and bottom curves meet at the center.

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I. Introduction

Following the conclusion of phase 1 of the procedure initiated in 2017 in accordance with Regulation (EU) 2017/459 (network code on capacity allocation mechanisms in gas transmission systems; hereinafter “NC CAM”) for incremental capacities at the market area border between the market areas GASPOOL and TTF, the participating transmission system operators (TSOs) started the design phase for the technical projects (phase 2) and concluded their consultations at the end of 2017. As described in the report on the Market Demand Assessment 2017 (published on 27 July 2017), there is a permanent need for additional capacities on both sides of this market area border. The Technical Study described how the transmission system can be expanded efficiently in consideration of the transmission system topology and economic aspects. This project application is a joint document of the involved TSOs of the GASPOOL market area. The involved TSOs are GASCADE Gastransport GmbH (hereinafter: GASCADE) and Gasunie Deutschland Transport Services GmbH (hereinafter: GUD). The project application of the involved TSO of the TTF market area, Gasunie Transport Services B.V. (hereinafter: GTS), has been attached as Annex 4 to this project application for information purposes. Both applications have been coordinated among the TSOs.

II. Approval contents of the project application for incremental capacities on the German side of the market area border GASPOOL–TTF

1. Information regarding the non-binding market demand

The summarised and non-binding requests for firm capacities that follow have been incorporated into the Technical Study as well as this project application (maximum values):

Existing capacity plus offer level 1:

TSO	Capacity type (flow direction)	Interconnection point	Current technically available capacity (TAC) (kWh/h/a)	Total TAC	Request* (kWh/h/a)	Product
GUD	Exit capacity (GASPOOL → TTF)	Bunde/Oude Statenzijl H	2,100,000	14,519,680	21,819,680 (+7,300,000)	Dynamically allocatable capacity
GASCADE	Exit capacity (GASPOOL → TTF)	Bunde/Oude Statenzijl H	12,419,680			
GTS	Entry capacity (GASPOOL → TTF)	Bunde/Oude Statenzijl H	17,872,764	17,872,764	25,172,764 (+7,300,000)	firm

Table 1 Overview of existing capacity and of Non-Binding Requests regarding offer level 1 (maximum value)

Existing capacity plus offer level 2:

TSO	Capacity type (flow direction)	Interconnection point	Current technically available capacity (TAC) (kWh/h/a)	Total TAC	Request* (kWh/h/a)	Product
GUD	Exit capacity (GASPOOL → TTF)	Bunde/Oude Statenzijl H	2,100,000	14,519,680	26,419,680 (+11,900,000)	Dynamically allocatable capacity
GASCADE	Exit capacity (GASPOOL → TTF)	Bunde/Oude Statenzijl H	12,419,680			
GTS	Entry capacity (GASPOOL → TTF)	Bunde/Oude Statenzijl H	17,872,764	17,872,764	29,772,764 (+11,900,000)	firm

Table 2 Overview of existing capacity and of Non-Binding Requests regarding offer level 2 (maximum value)

*In a letter that was enclosed with the shipper’s request, there was a presentation describing that the requested capacities at the exit point Bunde/Oude Statenzijl H of up to 11,872 MWh/h (approx. 9 billion m³/year (20° C)) will exceed all the existing bundled

capacities at the exit points as of 2030. In the course of later clarifications, the shipper stated that the total required need for the period 2025/26–2039/40 should be regarded as capacity in addition to the existing technical capacity.

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

During the consultation period of the Technical Study for incremental capacities at the border between the market areas GASPOOL and TTF, a statement on the consulted Technical Study was submitted. The statement criticises that only parts of the non-binding requested capacities were taken into consideration and that the request was taken into consideration in two separate Technical Studies. Moreover, there is criticism that the requested entry capacity to the market area NetConnect Germany (hereinafter: NCG) is not considered.

The TSOs have critically appraised the statement. Ultimately, the TSOs come to the same conclusions as during preparation of the Technical Study. Consequently, the TSOs have based the project application without any changes on the Technical Studies. This is the background:

Since according to Section 21 Gas Grid Access Ordinance (GasNZV) the market areas GASPOOL and NCG must be merged by no later than 01/04/2022, the non-binding capacity request NCG entry cannot be processed expediently. This is the case because the basis for a modelling of this capacity request — a capacity model encompassing both of the two market areas today — is not yet available. These circumstances were described in the consulted Technical Studies.

3. Information regarding the technical measures

Technical studies based on the non-binding requests described in the report on the market demand assessment were carried out for the market area border GASPOOL–TTF. An increase of exit capacity demand from GASPOOL to TTF in the amount of 11,872,146 kWh/h (rounded off: 11.9 GW; maximum value) was determined. This was used as the basis for the Technical Study. Three possible options for technical realisation were considered: (i) transport via the GASCADE transmission system network; (ii) via the GUD transmission system network; and (iii) via the market area NCG.

(i) Transport via the GASCADE transmission system network:

In the event of transport via the GASCADE transmission system network, the requested capacities will be provided at the network interconnection point Bunde. The existing transmission system network would have to be expanded by the following expansion measures for realisation of the requested capacities:

1. Compressor station in Bunde
2. Loop line (approx. 70 km)

The investment costs for these system network expansion measures amount to about €250m.

(ii) Transport via the GUD transmission system network:

The transport route via the GUD transmission system network plans provision of the capacity at the network interconnection point Knock. To increase the available technical capacity in the GUD network investment measure would require an investment of approx. €5,2m. The measures are described in greater detail in the table below:

Project No.	Description
1	Increase in overfeed capacities between NEL and the GUD network at the measuring station Embsen €0.3m
2	Performance expansion of the existing measuring station Folmhusen €0.45m

3	Performance expansion of the existing measuring station for provision of service to GTS via the network interconnection point Knock €0.5m
Investment costs offer level 1	€1,250,000
4	Performance expansion of the existing measuring station Folmhusen €0.45m
5	Performance expansion of the existing measuring station for provision of service to GTS via the network interconnection point Knock €0.5m
6	Laying of pipelines for reversal of the flow direction at the existing compressor station Holtum €3m
Investment costs offer level 2	€5,200,000

Table 3 Investment measures in the GUD grid

By focusing on the modifications to existing assets, the project terms can be kept very short (presumably < 3 years) and the approval risks are low. The projects can be initiated following a successful economic test and begin operation by no later than 2025.

(iii) Transport via the NCG market area:

Pursuant to Section 21 GasNZV, the market areas GASPOOL and NCG must be merged by no later than 1 April 2022. Since, as a consequence, there will be a unified German market area from 2025, the TSOs in the market area GASPOOL turned to the TSOs in the NCG market area for the purpose of conducting a joint technical study. At this time, however, there is still no finalised joint capacity model between the GASPOOL and NCG market areas, nor is it possible to create such a model within the framework of the planning phase of the current procedure. It is therefore not possible to determine the measures necessary for the provision of conditional capacities for transport from the market area border RU-GASPOOL to the Netherlands via the NCG market area.

The network interconnection points on the border between NCG and GASPOOL must be incorporated into one capacity model as the first step. In any case, it must be pointed out today that a routing via the NCG market area for transports to the Netherlands would exacerbate the current bottlenecks between the GASPOOL and NCG market areas. Moreover, the market area conversion from LCG to HCG will not have been completed in 2025 so that the existing LCG infrastructure cannot be used to provide these capacities.

Conclusion:

The project partners apply for approval to provide the requested capacities via the expansion of the GUD grid.

Owing to the lack of a cross-market area capacity model, a detailed comparison of the transport route via the NCG market area with the expansion measures in the GASPOOL market area is at this time not possible. As described above, routing via the NCG market area for transports to the Netherlands would exacerbate the current bottlenecks between the two German market areas. Since the market area conversion from LCG to HCG will not have been completed in 2025, the current LCG infrastructure cannot be used for the provision of these capacities. Viewed against this background and in consideration of the total relative low investment cost for the incremental, on both sides of the border, the expansion of the GUD grid and the adjustment in the GTS grid is the preferred expansion option. In addition to the comparably low investment costs, the expansion options and transport routes described here appear as highly advantageous for other reasons as well. The selected technical solution ensures long-term use of the existing infrastructure. The project terms can be kept very short (presumably < 3 years) and the approval risks are comparatively low because very little new infrastructure is required and focus is on the modification of existing assets. The requested capacities can also be carried out on the part of GTS at low investment costs (see appendix 4).

4. Information regarding available capacity (existing capacity) at the market area border GASPOOL-TTF

In order to ensure efficient network expansion, the existing capacities at the GASPOOL - TTF market area boundary should also be considered. Taking the existing capacities at the market area border into account in combination with the new capacities to be created ensures efficient use of existing infrastructure. In addition to the contracted capacities in the auctions of offer levels 1 and offer level 2, the project partners propose to consider the booking situation of the existing capacities at the market border GASPOOL - TTF.

The project partners propose the following procedure:

If the existing capacity is fully contracted in the corresponding gas year, the proportionate “volume of the binding requests for incremental capacity in kWh/h/a”* for each year will be entered in the BNetzA tool for the economic test (see 5. D. Defined parameters pursuant to Art. 22 (1) NC CAM (point (d) of Art. 28 (1) NC CAM)).

If the existing capacity in a gas year is not fully contracted, the prerequisites for the conduct of the economic test are not met for this gas year. No volumes are included in the economic test for the specific gas year.

The following figure illustrates the procedure:

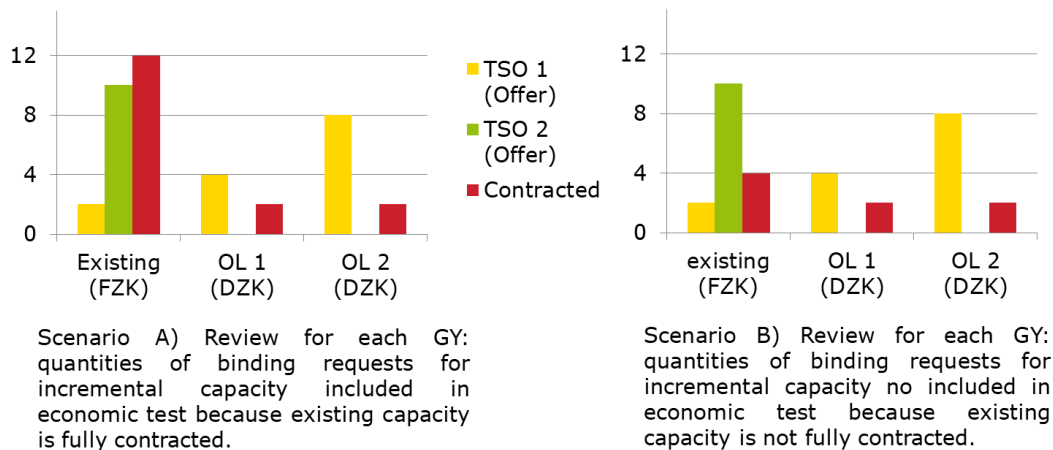


Figure 1 Exemplary presentation of requirement of full contracting of existing capacities

Available existing capacity will be offered in standard capacity products at the market area border Exit GASPOOL – Entry TTF by GASCADE at network point Bunde and by GUD at network point Oude Statenzijl H. The available existing capacity is shown in **Fout! Verwijzingsbron niet gevonden..** The examination of whether the condition for the complete contracting of the existing capacity in each GY has been met is conducted by the BNetzA.

table 2) products to be offered	existing capacity		
	total amount	existing capacity FZK GUD Oude Statenzijl H	existing capacity FZK Gascade Bunde
GWJ 25/26	2.377.891	1.680.000	697.891
GWJ 26/27	2.377.891	1.680.000	697.891
GWJ 27/28	2.377.891	1.680.000	697.891
GWJ 28/29	2.377.891	1.680.000	697.891
GWJ 29/30	2.377.891	1.680.000	697.891
GWJ 30/31	2.377.891	1.680.000	697.891
GWJ 31/32	2.377.891	1.680.000	697.891
GWJ 32/33	7.959.300	1.680.000	6.279.300
GWJ 33/34	10.322.315	1.680.000	8.642.315
GWJ 34/35			
GWJ 35/36			
GWJ 36/37			
GWJ 37/38			
GWJ 38/39			
GWJ 39/40			
		9	9

Table 4 Overview of existing capacity at the market border Exit GASPOOL - Entry TTF

Since the marketing period of existing capacity is limited to 15 years according to Art. 11 (3) first sentences NC CAM (GY 19/20 to GY 33/34) only bookings for existing capacities for GY 25/26 to GY 33/34 are considered.

*See BNetzA tool Annex 3a and Annex 3b, sheet economic test, cell C10

5. Approval contents pursuant to Art. 28 (1) NC CAM

a. Offer level (point (a) of Art. 28 (1) NC CAM)

During the economic test pursuant to Art. 22 NC CAM, there will be a review at every offer level whether the present value of the total revenue from the contracting of the incremental capacities equals as a minimum the product of the f-factor multiplied by the present value of the estimated rise in permissible revenue of the TSOs (“costs”) corresponding to the offer level. In accordance with Art. 22 (3) second sentence NC CAM, the offer level with the largest amount of capacity from among the offer levels with a positive outcome will be used.

GUD will offer two offer levels for incremental capacity in the annual auction 2019 at the new cross border point Knock. The shipper must note at this time that it must submit a bid in every gas year in all auctions in order to obtain capacity allocations. The capacities being offered will be calculated in accordance with Art. 11 (6) NC CAM. 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. Since KARLA Gas does not apply in the TTF market area, the reservation of 10% for incremental capacities pursuant to NC CAM will be followed in the TTF market area. There will be one auction for offer level 1 and one auction for offer level 2 per gas year. The different reservation rates will result in unbundled products on the TTF side.

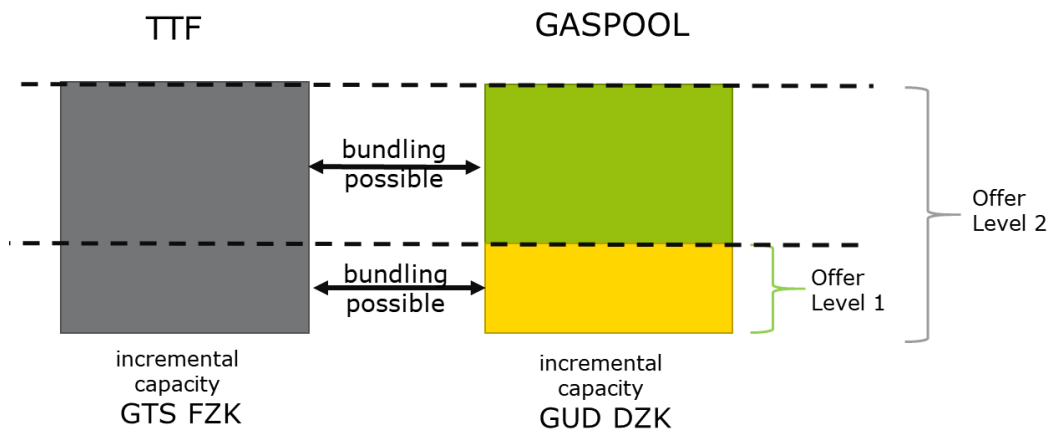


Figure 2 Schematic Constellation of offer levels 1 and offer level 2

Offer level 1 and 2 will be offered will be offered for a maximum of 15 years after the start of operational use. Offer Levels 1 and 2 will be offered from gas year (GY) 25/26

to GY 39/40. The capacity products of offer levels 1 and 2 are shown in the following table (taking into account the reservation quota of 20%):

products to be offered	Offer Level 1	Offer Level 2
	incremental capacity DZK Gasunie Knock	incremental capacity DZK Gasunie Knock
GWJ 25/26	5.840.000	9.520.000
GWJ 26/27	5.840.000	9.520.000
GWJ 27/28	5.840.000	9.520.000
GWJ 28/29	5.840.000	9.520.000
GWJ 29/30	5.840.000	9.520.000
GWJ 30/31	5.840.000	9.520.000
GWJ 31/32	5.840.000	9.520.000
GWJ 32/33	5.840.000	9.520.000
GWJ 33/34	5.840.000	9.520.000
GWJ 34/35	5.840.000	9.520.000
GWJ 35/36	5.840.000	9.520.000
GWJ 36/37	5.840.000	9.520.000
GWJ 37/38	5.840.000	9.520.000
GWJ 38/39	5.840.000	9.520.000
GWJ 39/40	5.840.000	9.520.000
	15	15

Table 5 Overview of yearly capacity auction Offer Level 1 and Offer Level 2

The number of auctions can be seen in the above overview:

- Offer Level 1: 15 auctions
- Offer Level 2: 15 auctions

Information about the GTS offer level can be found in Annex 5. Further details on offer levels 1 and 2 of GUD can be found in Annex 1.

Now, in contrast to the Technical Study, the presented offer level only consist out of incremental capacity and do no longer consider existing capacity. This change is based on intense discussions between the involved TSO and national regulation authorities. Information regarding available existing capacity can be found in section 4.

b. Supplementary Terms and Conditions (point (b) of Art. 28 (1) NC CAM)

The draft of the General Rules and Conditions (GRC) is attached to this document as Annex 2.

c. Timeline for the project (point (c) of Art. 28 (1) NC CAM)

The steps of the procedure initiated in 2017 for incremental capacities on the border between the GASPOOL and TTF market areas have been outlined pursuant to NC CAM as follows:

Starting date	End date	Description
27/07/2017		Start of the design phase
27/07/2017	19/10/2017	Technical Studies by the TSOs
19/10/2017		Publication of the consultation documents
19/10/2017	19/12/2017	Public consultation
19/12/2017	15/02/2019	Planning of the offer levels by the TSOs in close cooperation with the national regulatory authorities
15/02/2019	15/04/2019	Approval and publication of the required parameters by the national regulatory authorities pursuant to Art. 28 (1) NC CAM
15/04/2019	30/04/2019	Adaptation of the offer levels by the TSOs in consideration of the requirements of the regulatory authorities
01/05/2019		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
01/07/2019		Annual auction/Economic test

Table 6 Steps of the Present Process Cycle

The measures for the network expansion for the successful offer level will be initiated after the conduct of the PRISMA auction for annual capacity products in July 2019 and successful completion of the economic test. Operational readiness for all technical measures is scheduled for 1 October 2025.

The presentation below outlines the further steps and also outlines a rough timeline for the technical measures based on previous projects and the current planning status. Experience with previous projects indicates that this timeline includes time buffers for the avoidance of delays in provision of the capacities.

Starting date	Duration	Description
08/2023	5 months	Necessary internal project initiation
12/2023	4 months	Detail engineering
08/2024	9 months	Applications and approvals
04/2024	9 months	Tender and award
08/2024	9 months	Order/delivery
12/2024	4 months	Order/delivery of other materials
04/2025	6 months	Construction phase
10/2025		Operational startup
10/2025	5 months	Project conclusion/completion

Table 7 Additional Steps Technical Measures

The aforementioned dates are provisional and subject to change. If the results of the economic test are positive, the measures of the described expansion option (ii) transport via the GUD network will be initiated. More precise detailing of the timeline will take place after the economic test is passed successfully. (See Table 3 Investment measures in the GUD grid

for information concerning the milestones of the technical measures.)

Based on the successful economic test, the marketed incremental capacities will be incorporated in the network development plan Gas 2020–2030.

d. Defined parameters pursuant to Art. 22 (1) NC CAM (point (d) of Art. 28 (1) NC CAM)

Estimated reference price pursuant to point (i) of point (a) of Art. 22 (1) NC CAM:

The BNetzA has developed and published a calculation tool (hereinafter: “BNetzA tool”) aimed at enhancing transparency for the economic test pursuant to Art. 22 NC CAM. In the BNetzA tool, the indicative reference price during fusion of the GASPOOL and NCG market areas published in the decision of the BK9 (file number BK9-18//610-NCG and BK9-18/611-GP) entitled REGENT is used as an estimated reference price for the year 2022. It amounts to €3.97/kWh/h/a. Since the incremental capacities are dynamically allocatable capacities, a discount of 5% is calculated so that the reference price amounts to €3.7715/kWh/h/a. In clarification, it is pointed out here that the indicated reference price is used solely for the conduct of the economic test and does

not represent an agreement concerning the charges that must be paid during the pertinent service period of the relevant capacity contracts. The completed BNetzA tool is attached to this application as Annex 3a (offer level 1) and Annex 3b (offer level 2).

Auction premium pursuant to point (a) of Art. 22 (1) NC CAM:

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. Any such premium will not be known until after the annual auction 2019. 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 pursuant to point (ii) of point (a) of Art. 22 (1) NC CAM:
No mandatory minimum premium is used.

Present value of the estimated increase in the allowed revenue pursuant to point (b) of Art. 22 (1) NC CAM:

The following estimated allowed revenue increases were calculated with the aid of the BNetzA tool:

- Marketing offer level 1: €2,173,439.37
- Marketing offer level 2: €14,977,323.29

These values differ from the values that were published and consulted within the framework of the Technical Studies. Following intense discussion between the involved TSOs and the BNetzA regarding the input variables for the economic test, the present value of the estimated increase in the allowed revenue was reduced. Details are shown in Annexes 3a and 3b.

f-factor pursuant to point (c) of Art. 22 (1) NC CAM:

The following f-factors have been calculated with the aid of the BNetzA tool:

- Marketing offer level 1: 0.67
- Marketing offer level 2: 0.63

These values were published and consulted within the scope of the Technical Studies.

The following assumptions were made in the calculation with the aid of the BNetzA tool (Art. 23 (1) NC CAM):

- a) The amount of technical capacity set aside in accordance with Art. 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.

Procedure:

The BNetzA tool contains mathematical assessments for calculation of the f-factor pursuant to the criteria a), c) and d). The f-factor is calculated from the ratio of the present value of the binding commitments of network users for contracting capacities beyond the time horizon of the first annual auction in which the incremental capacities in each case are offered pursuant to point (a) of Art. 22 (1) NC CAM to the present value of all expected commitments of network users for contracting the pertinent capacities.

The proposed f-factors were calculated as shown below:

- a) The technically available capacity set aside pursuant to Art. 8 (8) NC CAM and in accordance with BNetzA ruling BK7-15-001 (KARLA Gas) of 20% of the increment capacity contained in each offer level amounts to:
- Offer level 1: 1,460,000 kWh/h
 - Offer level 2: 2,380,000 kWh/h

The capacity offer of incremental capacities determined in the annual auction 2019 for the years 2025/26 to 2029/30 exceeds the non-binding demand shown in the market demand assessment phase. For this reason, it has been assumed that the reserved capacities will in the short term not be contracted before 2030/31 (until 2039/40).

- b) Other positive externalities were not determined.
- c) Pursuant to Article 11 (3) NC CAM, offer levels within the scope of the annual auction may be offered for a maximum of 15 years after the start of operational use if incremental capacity is offered.
- Since the incremental capacities offered in the annual auction 2019 will exceed the non-binding requests for capacities in GY 2025/26 to 2029/30, it was assumed for this period that contracting of transport customers will be in accordance with the non-binding market demands (Offer Levels 1 and 2).
 - GY 2025/26 request in the amount of 2,638,255 kWh/h
 - 659,563 kWh/h in 2025 (Q4)
 - GY 2026/27 request in the amount of 5,276,509 kWh/h

- 1,978,691 kWh/h in 2026 (Q1–Q3)
 - 1,319,127.25 kWh/h in 2026 (Q4)
 - In total 3,297,818 kWh/h in 2026
- GY 2027/28–GY 2029/30 request in the amount of 5,276,509 kWh/h
 - 5,276,509 kWh/h in 2027, 2028 and 2029
- For the period from 2030/31 to 2039/40, it was assumed that the incremental capacities offered in the annual auction 2019 will be contracted completely.

GY 2030/31 to GY 3039/40 request in the amount of 11,872,146 kWh/h

- Offer Level 1:
 - 3,957,381 kWh/h in 2030 (Q1–Q3)
 - 1,460,000 kWh/h in 2030 (Q3)
 - In total 5,417,382 kWh/h in 2030
- Offer Level 2:
 - 3,957,381 kWh/h in 2030 (Q1–Q3)
 - 2,380,000 kWh/h in 2030 (Q4)
 - In total 6,337,382 kWh/h in 2030
- Offer Level 1: 5,840,000 kWh/h for the period 2031–2039
- Offer Level 2: 9,520,000 kWh/h for the period 2031–2039
- Offer Level 1: 4,380,000 kWh/h in 2040 (Q1–Q3)
- Offer Level 2: 7,140,000 kWh/h in 2040 (Q1–Q3)

The start of operational use is scheduled for 2025. The economic life of the assets was recognised in accordance with regulatory and usual depreciation periods. The described investment relates in part to a compressor station. According to Annex 1 of Section 6 (5) Gas Grid Access Ordinance (GasNZV), the regulatory and usual economic life for compressors amounts to 25 years. The start of operational use is scheduled for 2025, so the final write-offs would be made in 2049. Based on current market assessments, it is assumed for the period from 2039/40 to 2048/49 that 75% of the total incremental capacities would be contracted.

d) The decisive year for the determination of the time horizon for the economic life and the economic test is 2049. No contracting was considered for the period 2049 and later.

e. Exceptionally extended marketing horizon (point (e) of Art. 28 (1) NC CAM)

An extended marketing horizon is not used.

f. Alternative allocation mechanism (point (f) of Art. 28 (1) NC CAM)

An alternative allocation mechanism is not used.

g. Fixed price approach (point (g) of Art. 28 (1) NC CAM)

A variable price system is used in Germany, so fixed prices were not used.

h. Economic test

Pursuant to Item 1 of the tenor of the decision of BK 9 (file number BK9-17/609) entitled INKA, the economic test for every offer level of a project for incremental capacity pursuant to Art. 22 NC CAM is conducted by the BNetzA. In Part II of the specification decision, the BK 9 notes that the economic test is an element of the project proposal and all basic questions of the economic test must be clarified in the proposal. Fundamental aspects were clarified with the aid of the BNetzA tool in the Technical Study.

The transmission system operators request the following procedure during the performance of the economic test:

Economic test of offer level 2

If the economic test shows that the present value of the total revenue through contracting of incremental capacity in offer level 2 $> \text{€}9,435,713.67$ is true, offer level 2 is successful and offer level 1 and the existing capacity products are dropped.

Economic test of offer level 1

If the economic test of offer level 2 is not successful and if the present value of the total revenue from contracting of incremental capacity in offer level 1 $> \text{€}1,456,204.38$ is true in addition, offer level 1 is successful and offer level 2 and the existing capacity products are dropped.*

*Estimated allowed revenue increase multiplied by the f-factor of each offer level (see in addition "Defined parameters pursuant to Art. 22 (1) NC CAM (point (d) of Art. 28 (1) NC CAM)").

6. Approval application

GASCADE and GUD apply to the Federal Network Agency for approval of the contents shown in Part II for the continuation of the conduct of the procedure for incremental capacities pursuant to NC CAM.

III. Contact Data

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IV. Annexes

1. Offer levels GASCADE and GUD
2. Supplementary terms and Conditions
3. BNetzA Tool
 - a. Exit GP-TTF Level 1
 - b. Exit GP-TTF Level 2
4. Project Application of the Dutch Transmission System Operator Gasunie Transport Services B.V. (GTS)
5. Offer Level GTS