

**Demand assessment report  
for the incremental capacity process  
starting 2019 between *TTF market area and  
Trading Hub Europe***

**– External document for publication –**

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

**GASCADE Gastransport GmbH**

Kölnische Str. 108-112  
34119 Kassel  
Germany

T.: +49 (0) 561 934-0  
kontakt@gascade.de  
Fax: +49 (0)561 934-1208



**Gasunie Deutschland Transport Services GmbH**

Pasteurallee 1  
30655 Hannover  
Germany

T.: +49 (0) 511 640 607-0  
transport@gasunie.de  
Fax: +49 (0)511 640 607 1001



**Fluxys TENP GmbH**

Elisabethstraße 11  
40217 Düsseldorf  
Germany

T.: +49 (0)211 420 909-0  
info.fluxystenp@fluxys.com  
Fax: +49 (0)211 420 909-11



**Thyssengas GmbH**

Emil-Moog-Platz 13  
44137 Dortmund  
Germany

T.: +49 (0)231 91291-0  
incremental\_capacity  
@thyssengas.com



**Gastransport Nord GmbH**

Cloppenburgstraße 363  
26133 Oldenburg  
Germany

T.: +49 (0) 441 20980-101  
info@gtg-nord.de



**Open Grid Europe GmbH**

Kallenbergstraße 5  
45141 Essen  
Germany

T.: +49 (0)201 3642 12222  
gastransport@open-grid-  
europe.com



**Gasunie Transport Services B. V.**

Concourslaan 17  
9727 KC Groningen  
Netherlands

T.: +31 (0) 50 521 22 50  
info@gastransport.nl



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## A. Non-binding Demand indications

All inquiries received in the course of the demand period comply with the terms and conditions of participation and can be taken into account in the subsequent analysis.

The following table shows the **non-binding demand indications**:

From "EXIT CAPACITY"	To "ENTRY CAPACITY"	Gas year	Amount (kWh/h)	Request is submitted to other TSOs	Condi- tions <sup>1</sup>	Period when De- mand Indi- cation was received <sup>2</sup>	Additional Information
<i>German market area: Trad- ing Hub Europe</i>	<i>Netherlands</i>	<i>2025/26 – 2039/40</i>	<i>10.700.000</i>	<i>No</i>	<i>d)Restricted allocable firm capacity from Russian Federation and Poland</i>	<i>2</i>	<i>The capacity is requested in addition to the existing tech- nical capacity</i>

No demand indication for L-gas capacity was received.

Upon request of the market, Gasunie Transport Services BV (hereinafter GTS) has offered the service surrender of capacity within the market demand assessment of incremental capacity. In this way a single overview of demand and supply could have been obtained. However no market party has submitted offers for this service.

The German transmission system operators (hereinafter TSOs) offered to submit request for capacity upgrades. No request for this service was submitted for interconnection points at the Dutch-German border.

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<sup>1</sup> The following standardised terminology shall be used for describing the conditions:

- a) commitments linking or excluding commitments at other interconnection points;
- b) commitments across a number of different yearly standard capacity products at an interconnection point;
- c) commitments conditional on the allocation of a specific or minimum amount of capacity;
- d) other.

<sup>2</sup> The following standardised period shall be used for indicating the receiving date of the demand indication:

- 1) later than eight weeks after the annual yearly capacity auction in the previous incremental capacity cycle, that have not been considered previously;
- 2) within eight weeks after this year's yearly capacity auction (0 – 8 weeks after yearly auction in year);
- 3) later than eight weeks after this year's yearly capacity auction, but that will be considered in this incremental capacity cycle (9 – 16 weeks after yearly auction in year).

## B. Demand assessment

### Future merger of the German entry-exit-systems

On 7th July 2017, the German Bundesrat (Federal Council) approved the revision of the German Grid Ordinance (hereinafter GasNZV) which in §21 p. 1 s. 2 obliges TSOs to merge the currently existing two entry-exit-systems within Germany until 1 April 2022. Since such a merger implies that interconnection points between the entry-exit-systems will be transformed to inter-TSO exchange points and due to the fact that capacities eventually will not be bookable for transports, TSOs will stop marketing the respective capacities as of the date of the entry-into-force of the revised GasNZV for transports taking place after the merger.

In the course of the merging project of the two German market areas (“marco”) the German TSOs announced that they are planning to merge the two German market areas as of 1 October 2021. The name of the joined German market area will be Trading Hub Europe. Since the ongoing incremental capacity process will end with the auctioning of yearly capacity products for capacity starting on 1 October 2021 in July 2021 there is no possibility to consider any requests concerning the borders of the market areas NetConnect Germany (hereinafter NCG) or GASPOOL.

Therefore, only demand indication for the borders of the merged German market area could be stated in the incremental cycle 2019 – 2021 (and following) and only those will be evaluated. Furthermore no demand indication for the former market areas NCG and GASPOOL were stated in the current process.

The evaluation of requested capacity will be based on the latest legally binding version of the German network development plan gas (hereinafter NDP) 2018 – 2028. In the further process of incremental capacity this basis for planning can change due to the capacity model which has to be finished for the joint German market area and a new assessment of already done conclusions could be necessary. As a consequence, also the level of demand for incremental capacity could change in the course of an incremental capacity project. All known facts will be incorporated into the process to the best of one’s knowledge and belief, still the TSO reserve the right to amend the input values for capacity modelling.

Moreover Article 19 Paragraph 9 of the Regulation (EU) 2017/459 (hereinafter NC CAM) which foresees the establishment of virtual interconnection points (hereinafter VIP) has to be taken into account. Probably, the two planned VIPs (VIP-TTF-NCG-H und VIP-TTF-GASPOOL-H) have to be merged due to the market area merger.

### Specifics of the assessed demand indication

The nonbinding request, shown in the table above, was submitted in due time. With start of the gas year (hereinafter GY) 2025 an additional demand of 10.7 GW was declared. The Exit capacity on the German side of the border shall be firm, restricted allocable (DZK). In case of the use

of exit capacity at the requested market area border, an entry capacity has to be used at the designated entry network points. The nonbinding request ask for the network points Greifswald and Mallnow to be considered. It is assumed that all entry points from the Russian Federation come into consideration. Moreover, it was indicated that the requested capacity is demanded in addition to the already available capacity. In the demand indication it is asked to process the demand indication described in the report together with the nonbinding request for incremental capacity at the market area border Germany / Russian Federation.

This year's nonbinding demand indication is lower than the 2017 request for incremental capacity. In the last incremental capacity process a maximum of 11.9 GW restricted allocable capacity from Greifswald was requested. No binding commitment was concluded in the yearly capacity auction.

There was no nonbinding request for increasing the existing Entry capacity in the Netherlands submitted. The entry capacity into the TTF market area has to be created at the same level as indicated in the demand indication.

#### **i. Historical usage pattern at interconnection points between the concerning Entry-/Exit- systems**

To support the assessment of a future demand for incremental capacity an analysis of the historical capacity utilization between the aforementioned entry-exit system is given.

For the assessment of incremental capacity demand between the Trading Hub Europe (Exit) to the market area TTF (Entry) (or the future VIP Trading Hub Europe-TTF-H) the interconnection point specific analysis is aggregated to entry-exit-system level. The analysis is performed separately for each side of the border, as technical and commercial parameters can differ for a number of reasons.

For the analysis the technical capacity, the booked firm capacity and the final confirmed quantities according to Article 3 (8) of Regulation (EU) Nr. 312/2014 are presented on an hourly scale. For the confirmed quantities no distinction between transports in firm or interruptible capacities is made. For the technical and booked capacity only firm freely allocable capacity, load-dependent firm freely allocable capacity and firm restrictedly allocable capacity which complies with the stated demand-indication is included in the analysis to provide fitting reference for the assessment of the demand for incremental capacity. Load-dependent firm freely allocable capacity and firm restrictedly allocable capacity which do not comply with the stated demand-indication are shown only for information.

The analysis is performed for the time frame 01.04.2017 06:00 hrs – 01.04.2019 06:00 hrs.

In addition, depending on the outcome of the analysis of the historical usage patterns an analysis of both the implementation and application of Congestion Management Procedures re-

quired by the CMP Guidelines and the possibility for and the actual use of capacity trading on the secondary market is performed. But as this analysis should not be an end in itself it is only performed if any sustained contractual congestion at the respective border is visible in the historic usage pattern.

The following interconnection points connect the aforementioned entry-exit systems and are suitable to fulfill the demand indications including the additional requirements:

Interconnection Point:	<b>Bunde/Oude Statenzijl-H</b>		
Energy Identification Code:	<b>21Z000000000074Q</b>		
Entry-exit-system:	<b>GASPOOL</b>	Entry-exit-system	<b>TTF</b>
TSO:	IP name:	TSO:	IP name:
Gascade GmbH	Bunde	Gasunie Transport Services B. V. (GTS)	Oude Statenzijl H

Interconnection Point:	<b>Oude Statenzijl H</b>		
Energy Identification Code:	<b>21Z000000000076M</b>		
Entry-exit-system:	<b>GASPOOL</b>	Entry-exit-system	<b>TTF</b>
TSO:	IP name:	TSO:	IP name:
Gasunie Deutschland Transport Services GmbH	Oude Statenzijl H	Gasunie Transport Services B. V. (GTS)	Oude Statenzijl H

Interconnection Point:	<b>Oude Statenzijl H</b>		
Energy Identification Code:	<b>21Z000000000075O</b>		
Entry-exit-system:	<b>NCG</b>	Entry-exit-system	<b>TTF</b>
TSO:	IP name:	TSO:	IP name:
Open Grid Europe GmbH	Oude Statenzijl	Gasunie Transport Services B. V. (GTS)	Oude Statenzijl H

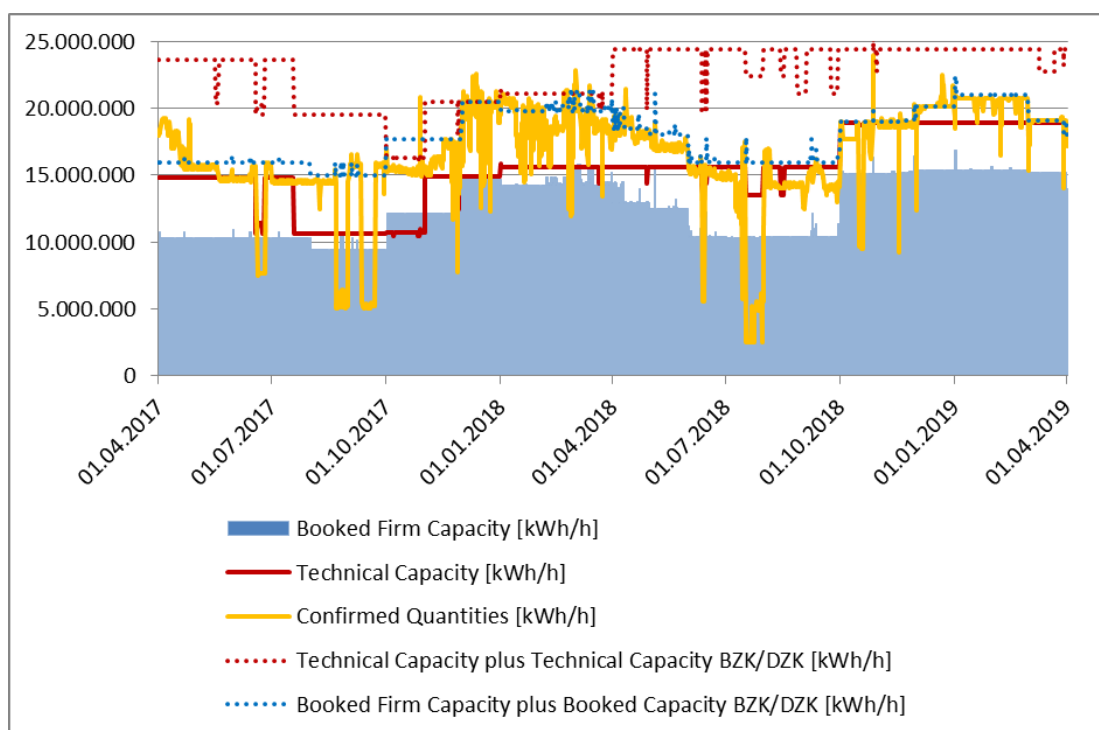
Interconnection Point:	<b>Bocholtz-Vetschau</b>		
Energy Identification Code:	<b>21Z000000000170U</b>		
Entry-exit-system:	<b>NCG</b>	Entry-exit-system	<b>TTF</b>
TSO:	IP name:	TSO:	IP name:
Thyssengas GmbH	Bocholtz-Vetschau	Gasunie Transport Services B. V. (GTS)	Bocholtz-Vetschau

Interconnection Point:	<b>Bocholtz</b>		
Energy Identification Code:	<b>21Z000000000071W</b>		
Entry-exit-system:	<b>NCG</b>	Entry-exit-system	<b>TTF</b>
TSO:	IP name:	TSO:	IP name:
Open Grid Europe GmbH	Bocholtz	Gasunie Transport Services B. V. (GTS)	Bocholtz-TENP

Interconnection Point:	<b>Bocholtz</b>		
Energy Identification Code:	<b>21Z0000000002042</b>		
Entry-exit-system:	<b>NCG</b>	Entry-exit-system	<b>TTF</b>
TSO:	IP name:	TSO:	IP name:
Fluxys TENP	Bocholtz	Gasunie Transport Services B. V. (GTS)	Bocholtz-TENP

#### a. Exit Trading Hub Europe

##### Historical capacity utilization Trading Hub Europe (aggregated)



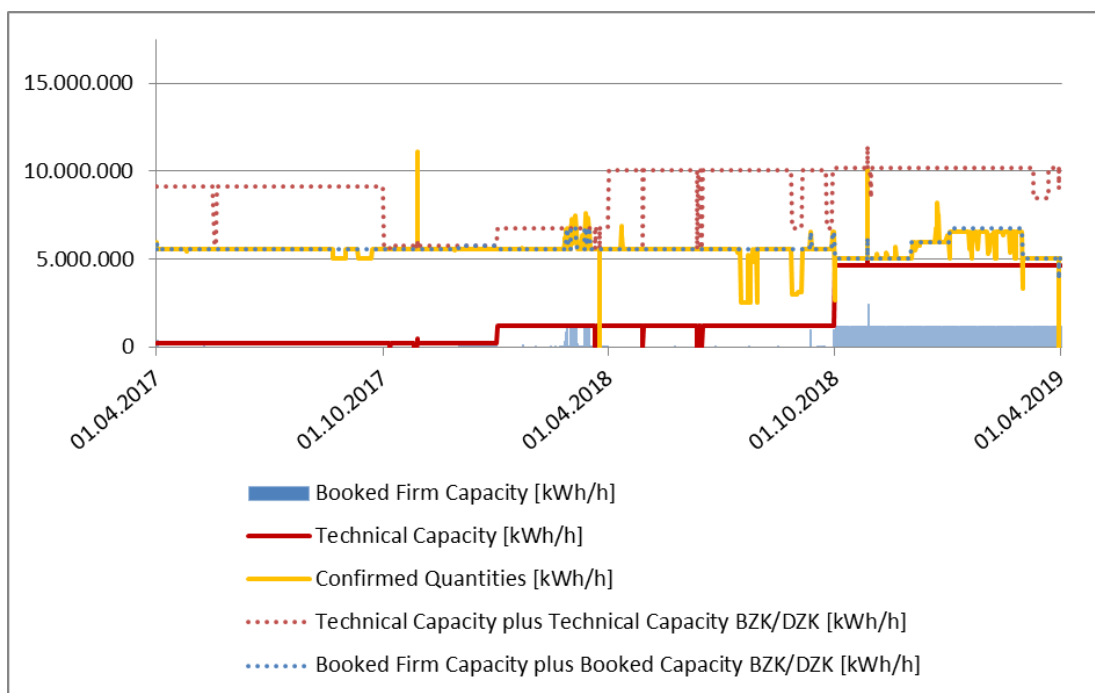
The graphic shows that the offered Exit capacity is booked to a large extent and that it is used on a firm and interruptible basis. The confirmed quantities exceed the technical capacity at 70% of the hourly values considered. However firm capacity is not sold out.



As stated before, only firm freely allocable capacity, load-dependent firm freely allocable capacity and firm restrictedly allocable capacity which complies with the stated demand-indication is included in the technical and booked capacity to provide fitting reference for the assessment of the demand for incremental capacity. The effect of the methodological choice to not state booked firm restrictedly allocable capacity (BZK/ DZK) which is not complying with the demand and also to not state booked interruptible capacity is the reason that confirmed quantities are higher than the technical and booked capacity in this form of aggregation.

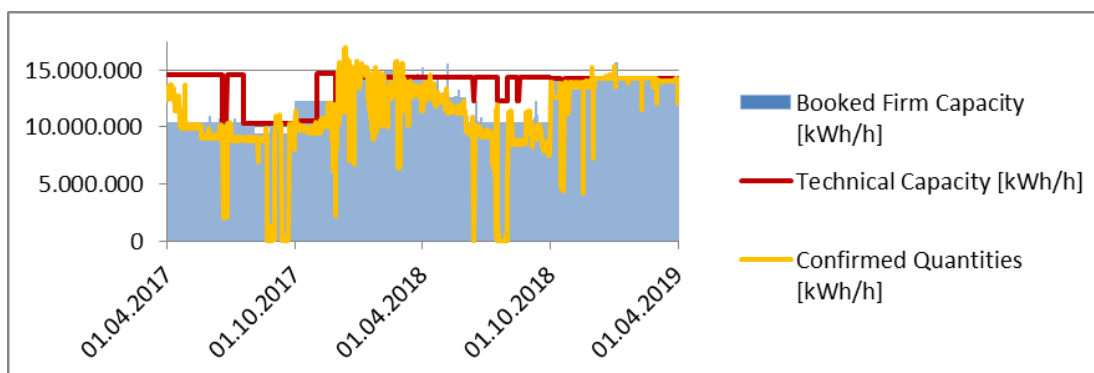
For a more detailed analysis of the aggregated values, the exit points are also considered separately for NCG and GASPOOL.

### Historical capacity utilization NCG (aggregated)



In the past, 99 % of the allocated values exceeded the technical capacity at NCG Exit points, as the allocation includes transport confirmations for all capacity types (FZK, BZK, DZK), but the technical capacity includes only firm capacity in compliance with the stated demand indication. If also BZK and DZK not complying with the stated demand in addition to the technical capacity is considered the allocated values exceed the technical capacity only a limited number of times.

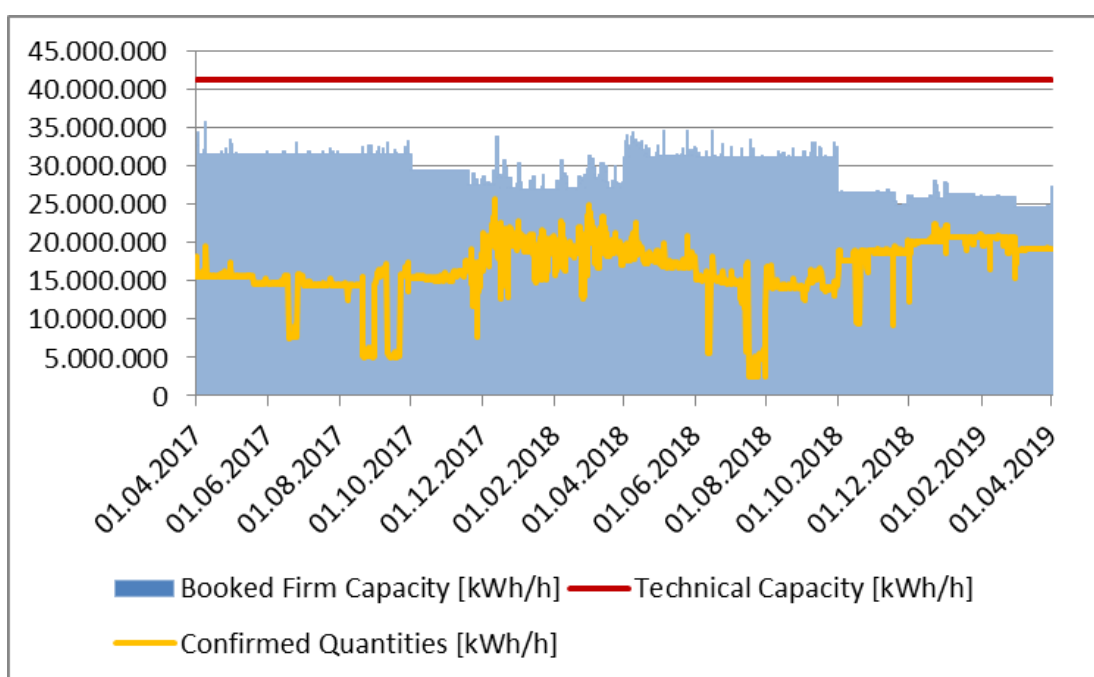
Firm capacity bookings did only increase slightly despite of a higher offer starting from 01.10.2018.

**Historical capacity utilization GASPOOL (aggregated)**

Concerning GASPOOL Exit points there is a balanced picture. The confirmed quantities only exceed the firm booked capacities at 10 % of the values considered.

**Conclusion**

No sustained congestion is visible in the historic analysis that would indicate the need for additional firm capacity for the direction Exit Trading Hub Europe. Although the booked firm capacities are continuously exceeded by the allocation, firm capacities are available. The demand for capacity appears to be satisfied by the short-term supply of interruptible capacity. Therefore, no further analysis in respect to congestion management procedures and secondary marketing is performed.

**b. Entry TTF (aggregated)**

The technical capacity on the border between the German market areas and TTF on the TTF-side was sufficient to accommodate all bookings. The entry capacity on the Dutch side of the border exceeds significantly the exit capacity on the German side of the border. Amongst others this results from both the difference in technical capacity and the methodological choice not to include BZK and DZK in the graphs of the exit capacity on the German side.

### **c. Summary of historical usage pattern**

The confirmed quantities on the German side exceeded the technical capacity for a number of times. Nevertheless sufficient firm capacity is available in the future to meet all existing demand. On the Dutch side technical capacity is available up to a high amount. For these reasons, no further analysis of congestion management procedures and secondary marketing is performed.

## **ii. Relations to GRIPS, TYNDP, NDPs**

### **2.1 German national development plan (NDP)**

The latest NDP for Germany was published in March 2018. The NDP is legally binding. In the document there are no projects included, which will increase the capacity from GASPOOL or NCG towards TTF. Solely preservation measurements are included. In the future a higher capacity towards TTF could be provided when the gas pressure regulating and measuring station would be designed accordingly. These variants were analyzed in the previous incremental capacity cycle.

Currently, the NDP 2020 is being prepared. The scenario framework was already consulted and the results were given to Bundesnetzagentur (hereinafter BNetzA) for evaluation. The scenario framework reports about the information received from GTS, that as a result of the decrease of L-gas production, the planned shutdown of the gas storage facility Grijpskerk and the market conversion L to H in the Netherlands, increased H-gas capacity towards the Netherlands would be necessary. An increased H-gas capacity is necessary to provide sufficient gas in the form of converted L-gas to the European L-gas market.

### **2.2 Dutch national development plan**

The Dutch network development plan (NOP) 2017 contains a project aimed at the support of additional import from Germany to the Netherlands. Transport from the additional gas from GASPOOL to the TTF market area requires a reinforcement of the GTS transport network. In July 2020 the Investment Plan will be published.

### **2.3 Gas Regional Investment Plan (GRIP) and Ten Year Network Development Plan (TYNDP)**

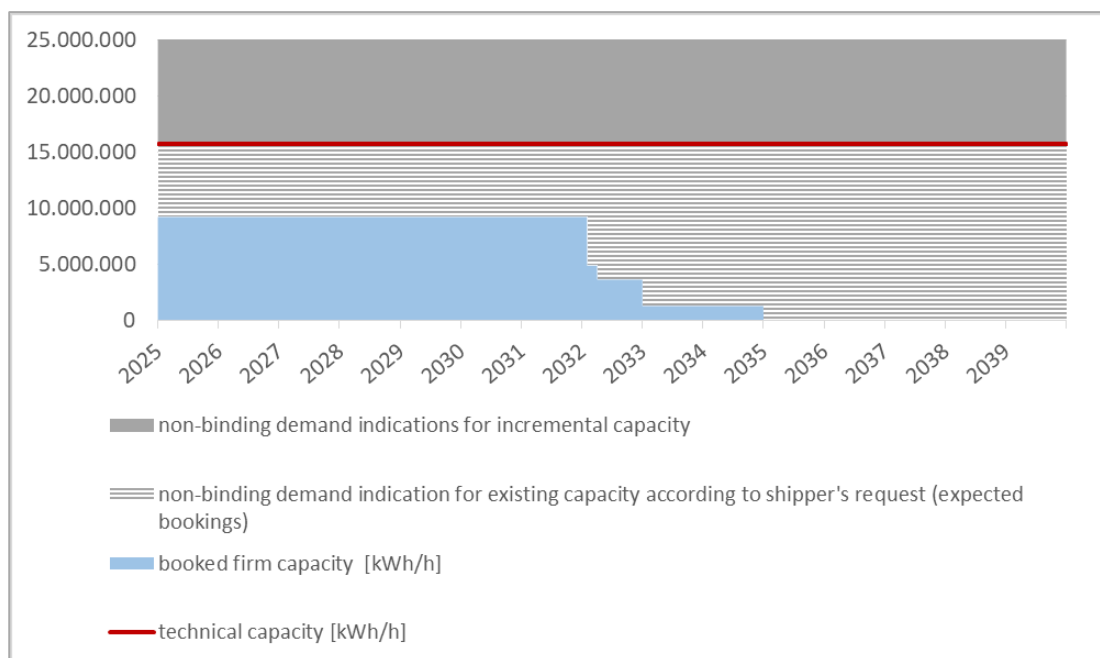
The Gas Regional Investment Plan North-West 2017 identified a number of projects to increase transit capacity from Germany to the Netherlands and further.

### iii. Expected amount, direction and duration of demand for incremental capacity

The assessment of the demand for incremental capacity will be conducted by analyzing the technical capacity, the booked firm capacity and the non-binding demand indications received for the interconnection points of the relevant entry-exit system border. The technical capacity concerning the IPs of the Trading Hub Europe is based on the last confirmed NDP (2018). The technical capacity concerning the IPs of TTF is based on the backbone capacity. Projects currently under construction and planned projects are also taken into account according to ii. The booked firm capacity used for this analysis is based on the published data of the concerned TSOs.

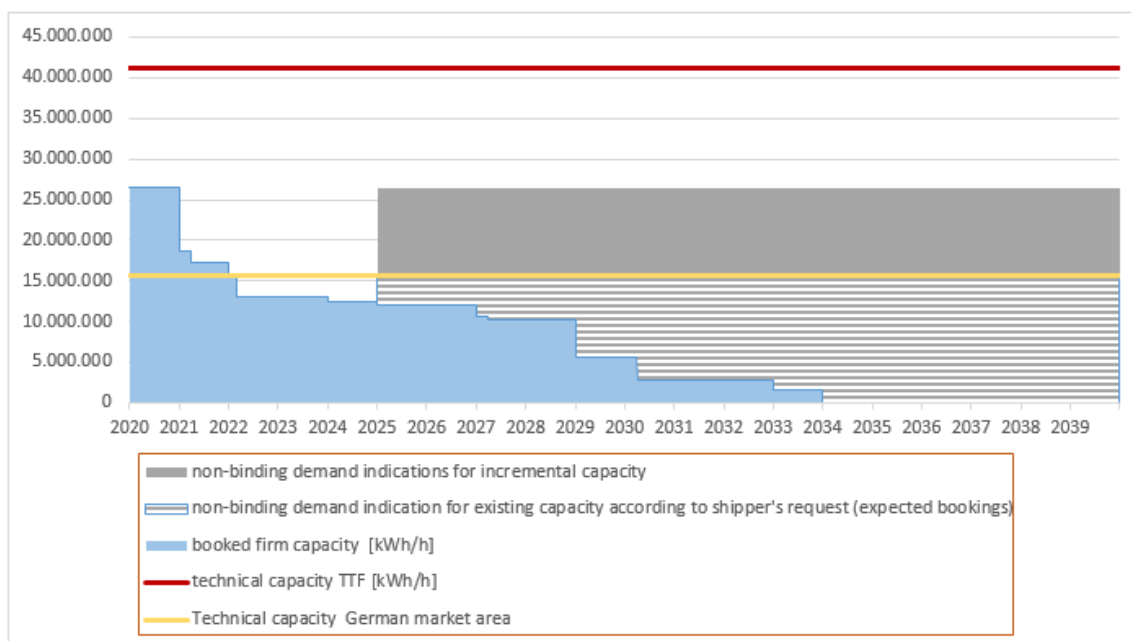
#### a. Exit Trading Hub Europe

The following chart shows the total technical and the total booked firm capacity based on NDP 2018. The non-binding demand for existing capacity (expected bookings; according to the demand indication the requested capacity is demanded in addition to the already available capacity) and the non-binding demand for incremental capacity are shown as well.



#### b. Entry TTF market area

The following chart shows the total technical and the total booked firm capacity. The non-binding demand for existing capacity (expected bookings) and the non-binding demand for incremental capacity are shown as well.



In order to determine whether a technical study is necessary, the criteria defined under Point C is checked. This check is carried out for each relevant entry-exit-system. In conclusion, a statement is made as to whether an incremental capacity project is initiated and whether technical studies need to be produced.

Since restricted allocable capacity (DZK) was requested in this inquiry the entire technical capacity that does comply with the specifics of the demand indication and all booked capacities are considered in the following analysis.

### C. Conclusion for the (non)-initiation of an incremental capacity project/process

If a sustained expected demand for incremental capacity is identified on one side of the entry-exit-system border the involved TSOs deem it necessary to conduct technical studies. Depending on whether a demand for incremental capacity is identified on one or both sides of the border of the entry-exit system an incremental capacity project will be started on one or both sides of the specific entry-exit system.

Deviations can occur only if there are justified individual instances.

If an incremental capacity project is initiated then technical studies will be conducted for potentially all IPs of the respective entry-exits system border for which the project was initiated. The specific IPs and TSOs for which technical studies will be conducted will be determined in the Design phase according to Article 27 of NC CAM. Thereby economical aspects and aspects of grid topology will be taken into account.

For the entry-exit-systems addressed by this report the following conclusion for the (non)-initiation of an incremental capacity project/process is drawn:

**a. Exit Trading Hub Europe**

The shipper demanded both the existing available capacity and 10.7 GW incremental capacity at the market area border.

Therefore the involved German TSOs deem it necessary to start a project for incremental capacity.

**b. Entry TTF**

The above shown chart indicates that the sum of both booked capacity and the non-binding demand indication is lower than the technical capacity available at the market area border. Hence, if the capacity inflow from Germany is spread across the various flanges, there is no need to start a project for incremental capacity on the Dutch side of the border.

However, given the need for technical measures on the German side of the border, GTS will of course participate in the incremental capacity project and will strive for the most cost effective technical measure.

## **D. Provisional timeline**

The involved TSOs have planned to conduct the technical studies and the consultation of the draft project proposal according to the following provisional timeline:

<b>Start Date</b>	<b>End Date</b>	<b>Description</b>
21.10.2019		Start of design phase
21.10.2019	Q1-Q2 2020	Technical studies by TSOs
Q1-Q2 2020		Publication of consultation documents
Q1-Q2 2020	Q2-Q3 2020	Public consultation
Q2-Q3 2020	Q3 2020	Development of the project proposal by TSOs in close cooperation with NRAs
Q3 2020	Q4 2020	Submission to the NRA and publication of the project proposal
Q1 2021	Q2 2021	Adjustment of the offer levels according to BNetzA decision by the German TSOs
Q2 2021	5.5.2021	Publication of the approved parameters and of a template of the contract(s) related to the capacity to be offered for the incremental project
5.7.2021		Yearly auction/economic test

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

If the economic test is positive, the project will feed into the national development process.

### **E. Interim arrangements for the auction of existing capacity on the concerned IP(s)**

According to Art. 26 Para 13 j) of NC CAM, the involved TSOs will offer capacities in compliance with Art. 11 Para 3 of NC CAM. The total duration of the non-binding demand indications with relevance for this Demand Assessment Report spans from gas year 2025/26 to gas year 2039/40, thus matching the threshold value stipulated in abovementioned Articles. Therefore no legal obstacles to offering all potential incremental capacities resulting from discussed non-binding demand indications in the yearly auction of 2021 were identified.

### **F. Fees**

According to Article 26 (11) of Regulation (EU) 2017/459 TSOs may charge fees for activities which result from the transmission of non-binding demand indications. Whether to demand fees or not will be evaluated by the TSOs for every single incremental capacity cycle. The decision on this matter for one specific incremental capacity cycle has no significance on any following cycles.

For the incremental capacity cycle addressed by this report, the following regulations in respect to fees apply: No fees have been charged by the involved TSOs for this cycle of incremental capacity.

## G. Contact information

### **GASCADE Gastransport GmbH**

Michael Walkus  
+49 (0) 561 934 2968  
Michael.walkus@gascade.de

### **Gasunie Deutschland Transport Services GmbH**

Kerstin Kiene  
+49 (0) 511 640 607 2076  
kerstin.kiene@gasunie.de

### **Fluxys TENP GmbH**

Alessandro Brunoni  
+49 (0)211 420 909-22  
alessandro.brunoni@fluxys.com

### **Thyssengas GmbH**

Andreas Martens  
Tel.: +49 (0)231 91291-5623  
incremental\_capacity@thyssengas.com

### **Gastransport Nord GmbH**

Beate Hobbie  
+49 (0) 441 20980 312  
Beate.hobbie@gtg-nord.de

### **Open Grid Europe GmbH**

+49 (0)201 3642-12222  
gastransport@open-grid-europe.com

### **Gasunie Transport Services B. V.**

Jan Albert Laverman/  
Janet Heida  
+31 (0) 50 521 3333  
incremental@gastransport.nl