

**Demand assessment report
for the incremental capacity process
starting 2019
between *the Russian federation*
and the
*Trading Hub Europe***

2019-10-21

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

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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**, where a **condition** was attached by the network users:

From "EXIT CAPACITY"	To "ENTRY CAPAC- ITY"	Gas year	Amount (kWh/h)	Request is sub- mitted to other TSOs	Conditions**	Period when Demand Indica- tion was re- ceived*	Additional Infor- mation
<i>Russian Fed- eration</i>	<i>Trading Hub Eu- rope</i>	<i>2025/2026 – 2039/2040</i>	<i>7.800.000 (kWh/h)/y</i>	<i>no</i>	<i>a)</i>	<i>2)</i>	<i>Freely allocable firm capacity; Capacity request shall be processed together with the following requests and the request at the border to the Netherlands; Capacity request is in addition to the existing bookable capacities.</i>
<i>Russian Fed- eration</i>	<i>Trading Hub Eu- rope</i>	<i>2025/2026 – 2039/2040</i>	<i>4.100.000 (kWh/h)/y</i>	<i>no</i>	<i>a)</i>	<i>2)</i>	<i>Restrictedly allocable firm capacity; Capacity request shall be processed together with the before mentioned request and the request from the</i>

							<i>border to the Netherlands; Capacity request is in addition to the existing bookable capacities.</i>
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* 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).

** 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.

The following table shows the **non-binding demand indications**, for a capacity upgrade by the network users:

Offering TSO	Point designation	Product designation	Flow Direction	Target capacity product	Amount already booked by shipper	Gas year [yyyy/yy]	Amount Of capacity to be upgraded
NEL Gas-transport GmbH	Greifswald	Restrictedly allocable firm capacity	Entry	Freely allocable firm capacity	8.691.845 (kWh/h)/y	2025/2026 – 2039/2040	8.691.845 (kWh/h)/y
GASCADE Gas-transport GmbH	Lubmin II	DZK1	Entry	Freely allocable firm capacity	338.652 (kWh/h)/y	2025/2026 – 2037/2038	338.652 (kWh/h)/y
GASCADE Gas-transport GmbH	Lubmin II	DZK2	Entry	Freely allocable firm capacity	2.931.020 (kWh/h)/y	2025/2026 – 2037/2038	2.931.020 (kWh/h)/y
Fluxys Deutschland GmbH	Lubmin II	DZK1	Entry	Freely allocable firm capacity	110.649 (kWh/h)/y	2025/2026 – 2037/2038	110.649 (kWh/h)/y
Fluxys Deutschland GmbH	Lubmin II	DZK2	Entry	Freely allocable firm capacity	957.660 (kWh/h)/y	2025/2026 – 2037/2038	957.660 (kWh/h)/y

Offering TSO	Point designation	Product designation	Flow Direction	Target capacity product	Amount already booked by shipper	Gas year [yyyy/yy]	Amount Of capacity to be upgraded
<i>Gasunie Deutschland Transport Services GmbH</i>	<i>Lubmin II</i>	<i>DZK1</i>	<i>Entry</i>	<i>Freely allocable firm capacity</i>	<i>110.649 (kWh/h)/y</i>	<i>2025/2026 – 2037/2038</i>	<i>110.649 (kWh/h)/y</i>
<i>Gasunie Deutschland Transport Services GmbH</i>	<i>Lubmin II</i>	<i>DZK2</i>	<i>Entry</i>	<i>Freely allocable firm capacity</i>	<i>957.660 (kWh/h)/y</i>	<i>2025/2026 – 2037/2038</i>	<i>957.660 (kWh/h)/y</i>
<i>ONTRAS Gas-transport GmbH</i>	<i>Lubmin II</i>	<i>DZK1</i>	<i>Entry</i>	<i>Freely allocable firm capacity</i>	<i>110.649 (kWh/h)/y</i>	<i>2025/2026 – 2037/2038</i>	<i>110.649 (kWh/h)/y</i>
<i>ONTRAS Gas-transport GmbH</i>	<i>Lubmin II</i>	<i>DZK2</i>	<i>Entry</i>	<i>Freely allocable firm capacity</i>	<i>957.660 (kWh/h)/y</i>	<i>2025/2026 – 2037/2038</i>	<i>957.660 (kWh/h)/y</i>

B. Demand assessment

Future merger of the German entry-exit-systems

On 7 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 transmission system operators (hereinafter 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 joint 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 (NCG) or GASPOOL.

Therefore, only demand indication for the borders of the Trading Hub Europe can be stated in the incremental cycle 2019 – 2021 (and following) and only those will be evaluated.

Due to the complexity of developing a joint capacity model the evaluation of requested capacity will be based on the latest legally binding version of the German network development plan gas (hereinafter NEP) 2018 – 2028. In the further process of incremental capacity this basis for planning can change and a new assessment of already done conclusions could be necessary. All known facts will be incorporated into the process to the best of one’s knowledge and belief, still the TSOs reserve the right to amend the input values for capacity modelling.

Specifics of the assessed demand indication

This demand assessment report contains two types of request for incremental capacity.

First there is the demand for additional capacity at the border between the Russian federation and the Trading Hub Europe. This demand for incremental capacity includes freely allocable firm capacity (FZK) in the German market area as well as restricted allocable firm capacity (DZK) with the transport restriction to the Netherlands.

According to the request all demand indications are meant to be additional to all already existing capacities at the market area border. Furthermore, both demand indications are requested to

be processed together with the demand indication at the market area border to the Netherlands. 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.

The second part of the demand indications consists of demand for capacity upgrade of already existing capacities. DZK-products which are booked at NEL Gastransport GmbH, ONTRAS Gastransport GmbH, Fluxys Deutschland GmbH, Gasunie Deutschland GmbH und GASCADE Gastransport GmbH shall be upgraded to be FZK-products. These demand indications request that the capacity upgrades at ONTRAS Gastransport GmbH, Fluxys Deutschland GmbH, Gasunie Deutschland GmbH und GASCADE Gastransport GmbH are processed together in the further process.

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

For the incremental capacity cycle addressed by this report non-binding market demand indications were received. Therefore, an analysis of the historical capacity utilization between the aforementioned entry-exit system is given to support the assessment of a future demand for incremental capacity.

This analysis is performed separately for each of the following interconnection points which connect the aforementioned entry-exits systems and for the direction, for which non-binding demand indications were received, in the current report the direction from the Russian Federation to the Trading Hub Europe. To support the assessment of incremental capacity demand the interconnection point specific analysis is aggregated to entry-exit-system level by the addition of the respective parameters of the single interconnection points.

For the analysis the technical capacity, the booked firm capacity and the final confirmed quantities (these may contain confirmed quantities of interruptible capacity products) are presented on an hourly scale. The analysis is performed for the time frame 01.04.2017 06:00 hrs – 01.04.2019 06:00 hrs.

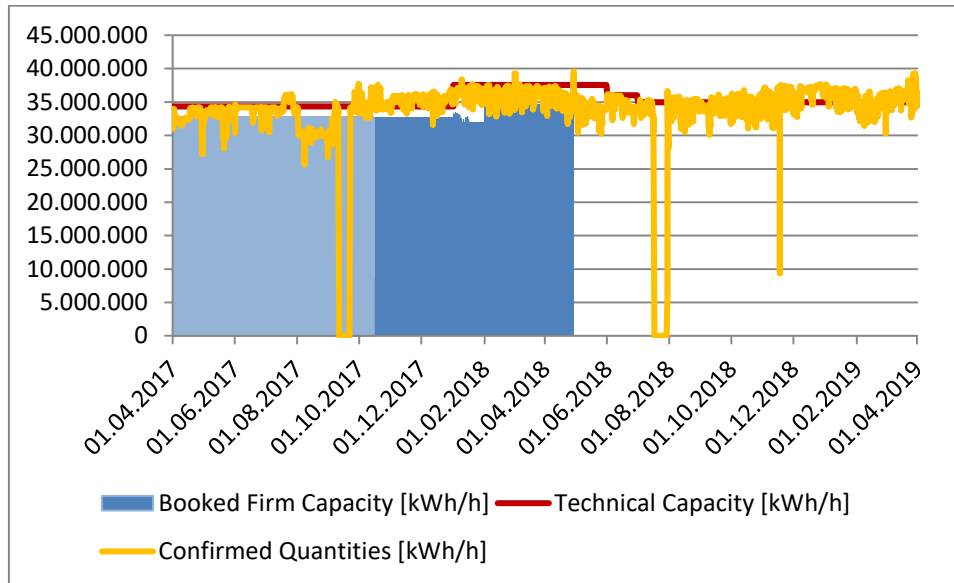
Since the IP Lubmin II has not been in operation at the time this report was conducted, no historical data could be assessed. Following interconnection points connect the Russian federation to Germany:

Interconnection Point:	Greifswald-OPAL		
Energy Identification Code:	21Z000000000241		
Entry-exit-system:	Russian Federation	Entry-exit-system	GASPOOL
TSO:	IP-Name:	TSO:	IP-Name:
Nord Stream	Greifswald-OPAL	Lubmin-Brandov Gastransport	Greifswald-OPAL / Lubmin
		OPAL Gastransport	Greifswald-OPAL

Interconnection Point:	Greifswald-NEL		
Energy Identification Code:	21Z000000000255M		
Entry-exit-system:	Russian Federation	Entry-exit-system	GASPOOL
FNB:	IP-Name:	FNB:	IP-Name:
Nord Stream	Greifswald-NEL	FLUXYS Deutschland	Greifswald-NEL
		Gasunie Deutschland Transport Services	Greifswald
		NEL Gastransport	Greifswald-NEL

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 required 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 chart illustrates the situation for entry capacity in the time from 01.04.2017 06:00 hours to 01.04.2019 06:00 hours:

a. Entry GASPOOL – aggregated

As a summary no sustained congestion is visible in the historic analysis that would indicate the need for additional firm capacity for the direction Entry GASPOOL. Therefore, no further analysis in respect to congestion management procedures and secondary marketing is performed.

ii. Relations to GRIPS, TYNDP, NDPsGerman national development plan

The latest network development plan was published in March 2018 and finalized in April 2019 and is known as the network development plan 2018 – 2028 (NEP Gas 2018 – 2028). The German network development plan is a legally binding for the German TSO.

In the modelling process of the network development plan new capacities at the border between GASPOOL and the Russian Federation were considered. These capacities were auctioned in 2017 and stem from the “more capacity”-process. The necessary measures are the natural gas receiving station Lubmin II (ID 412-03) the pipeline EUGAL (ID 507-01a) including the compressor station Radeland II (ID 507-01d) and other necessary projects (ID 410-01a-b und ID 507-01b-m). These measures are currently being implemented and ensure the capacity level on which new incremental capacity demands can be stated in this incremental capacity cycle.

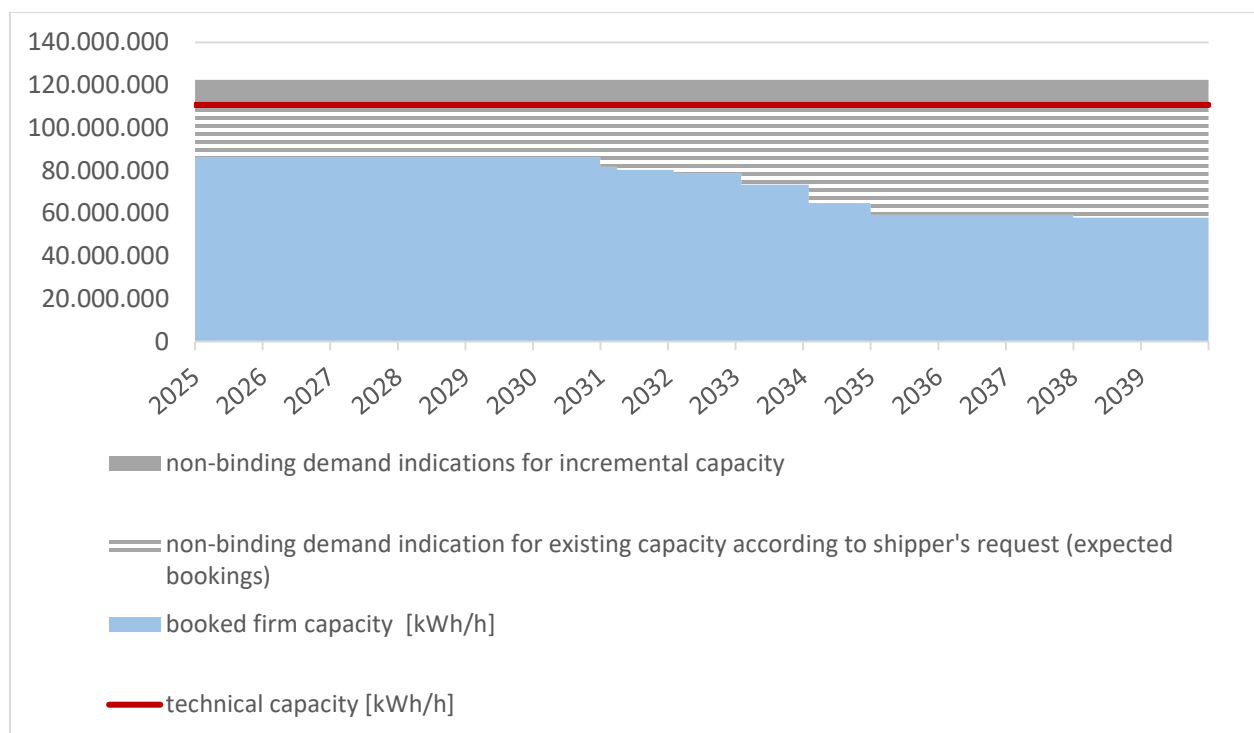
GRIP and Ten Year Network Development Plan (TYNDP)

The TYNDP 2017 which was published in April 2017 covers the interconnection points between GASPOOL and the Russian Federation. It contains projects to increase the capacity from the Russian Federation to GASPOOL resulting from the market-demand assessment “more capacity”. Especially the projects „EUGAL – Europäische Gasanbindungsleitung (European Link)“ (TRA-N-763), „Extension Receiving Terminal Greifswald“ (TRA-F-768) and „Nord Stream 2“ (TRA-F-937) are mentioned in this report. The finalization of the TYNDP 2018 will presumably be published in November 2019 and will contain the relevant network development projects from the NEP gas 2018 – 2028. However, the TYNDP is not legally binding

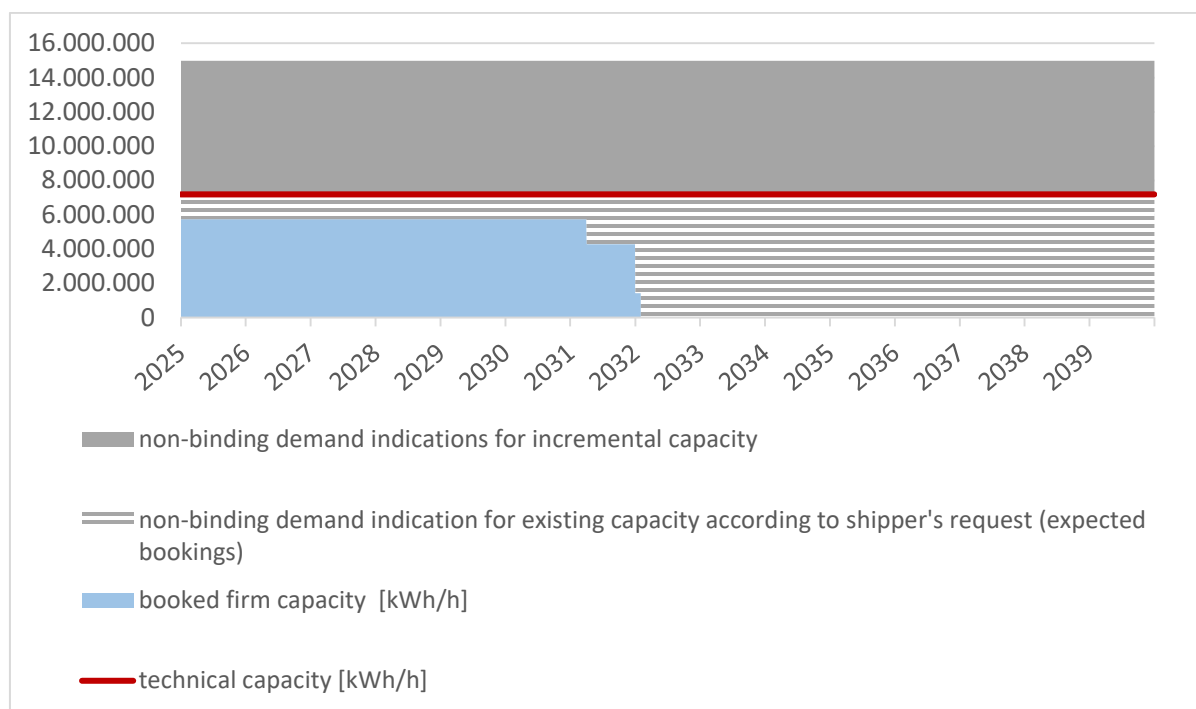
iii. Expected amount, direction and duration of demand for incremental capacity

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 (NEP 2018). 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 transmission system operators

a. Entry Trading Hub Europe - aggregated

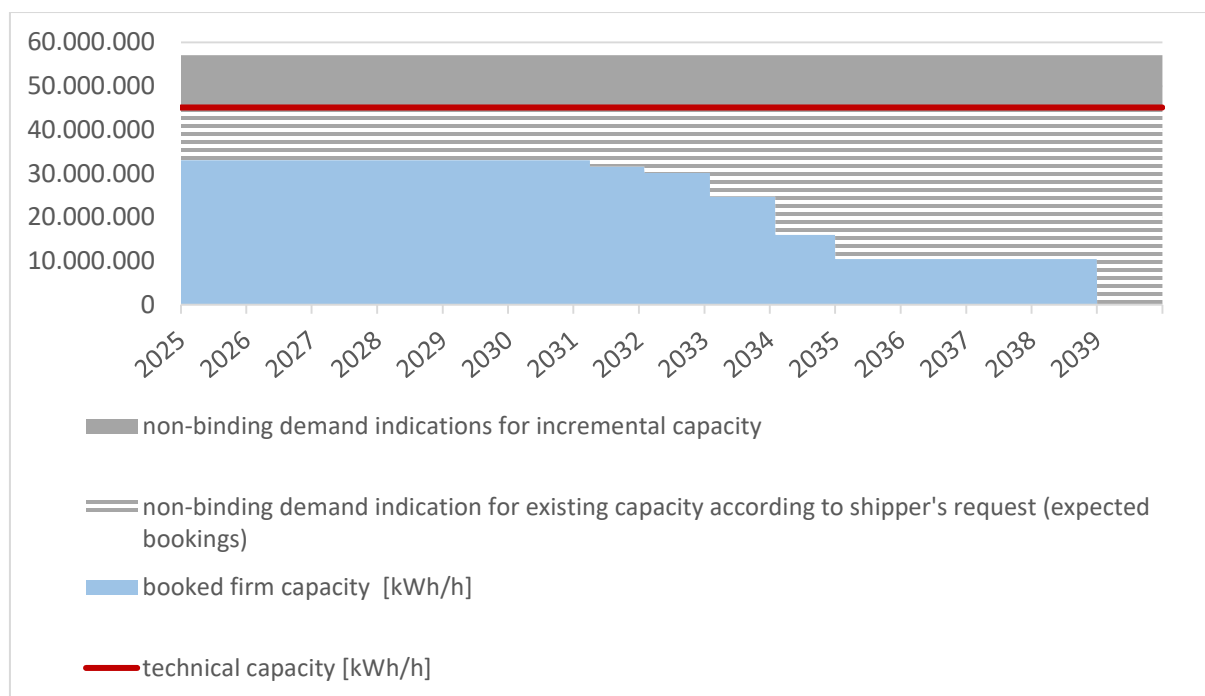


b. Entry Trading Hub Europe – FZK



In order to achieve an accurate estimation of incremental capacity, only capacity of capacity products which have the same or higher quality as the demanded incremental capacity products are considered. In this case FZK is demanded. Therefore, this chart only contains freely allocable capacities.

c. Entry Trading Hub Europe – DZK



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.

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:

Entry Trading Hub Europe

The charts shown in B.iii.a - c. show that the amount of reserved, booked and demanded incremental capacity exceed the existing technical capacity of the concerning capacity products at the IP between the Russian federation and Trading Hub Europe. This conclusion can be drawn for both demanded capacity products (FZK and DZK). Therefore, the TSOs deem it necessary to conduct a technical study for the assessed market area border (GASPOOL-side) according to Art. 27 of Regulation (EU) 2017/459 (NC CAM).

Furthermore, the TSO deems it necessary to include the demand for the demanded capacity upgrade in the technical studies.

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:

Start Date	End Date	Description
21.10.2019		Start of design phase
21.10.2019		Technical studies by TSOs
In calendar year 2020		Publication of consultation documents
In calendar year 2020		Public consultation
In calendar year 2020		Planning of offer levels by TSOs in close cooperation with NRAs
Q3/Q4 2020	Q1/Q2 2021	Approval and publication of the necessary parameters acc. to Art. 28 Para 1 NC CAM by NRAs
Q1/Q2 2021	5.5.2021	Adjustment of the offer levels according to NRA decision by the TSOs
5.5.2021	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 was 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 2020 were identified.

F. Fees

According to Article 26 (11) of Regulation (EU) 2017/459 transmission system operators 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 transmission system operators 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.

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