# Consultation Document

# for the Incremental Capacity Process 2019

# for the Market Border Area between Switzerland and the German market area Trading Hub Europe

- External document for publication-

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This report shall include a joint assessment of the need for incremental capacity by the following companies:

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# 1. Introduction

Having concluded the phase 1 of the incremental in 2019, as laid down in Regulation (EU) 2017/459 (Network Code on Capacity Allocation Mechanisms; below referred to as "NC CAM), the affected TSOs on the system border Switzerland – Trading Hub Europe (hereinafter THE) initiated the project design phase (phase 2). The demand assessment report "*Demand assessment report for the incremental capacity process starting 2019 between Switzerland and the German market area Trading Hub Europe*" for incremental capacity 2019 (published 21st of October 2019) shows a sustained demand, explicitly in the Lake Constance region on this particular market area border.

§ 21 (1) sentence 2 GasNZV provides that the TSOs must form a joint market area from the two existing market areas by April 1st 2022 at the latest.

As part of the preparations for the merger of the two German market areas, the German TSOs announced that the market area merger is expected to be implemented on October 1st 2021. The name of the joint market area will be Trading Hub Europe (THE).

The Swiss network operator Erdgas Ostschweiz AG (hereinafter EGO), which is bordering the Lake Constance region, explained in a requested statement dated 10.10.2019 that the non-binding requested demand cannot be satisfied on the Swiss side via the already existing IPs and the pipelines connected to them for reasons of security of supply (availability N-1 supply). Therefore, following the analysis of the Market Demand Report, a new IP in the Lake Constance region is to be planned, which completely covers the requested capacity demand.

The requested exit capacity for a new IP to be created in the affected Lake Constance region is therefore 2,000,000 kWh/h. This capacity includes an allocation requirement to the network node Burghausen (dynamically allocable capacity, DZK).

The TSOs intend to designate and market an entry DZK corresponding to the requested exit point at the Burghausen hub which is to be allocated to the requested exit capacity (allocation requirement for the new IP to be created in the Lake Constance region).

The entry DZK at the Burghausen grid node can be assigned to the following bookable points:

- Überackern
- Überackern 2
- Storage Haidach
- Storage 7Fields

Revenues accruing at the entry points are not taken into account in the economic viability test, costs are allocated according to expected use. Here, the case with the highest driving energy costs was assumed for the economic efficiency test with a complete allocation to the entry points Überackern and Überackern 2. A different allocation of the allocation points may result in lower driving energy costs.

The TSOs invite the market to comment on the alternatives to which of the above mentioned bookable points the relevant entry DZK should be assigned at which level. Irrespective of the comments received on the designation of this feed-in DZK, the TSOs concerned reserve the right to assign the feed-in DZK differently from the comments received in justified cases.

The evaluation and assessment of the market demand received was carried out on the basis of the modelling of the as yet unconfirmed gas network development plan in the basic variant (hereinafter NEP) 2020 - 2030. In the further course of the process for new capacity to be created, this planning basis (e.g. input variables for capacity modelling) may change and make it necessary to reconsider conclusions already drawn. As a consequence, the level of demand for new capacity to be created may still change in the course of a process for creating new capacity. The capacity modelling took into account all general conditions according to the current state of knowledge.

EGO will not participate in the incremental procedure according to NC CAM, as EGO does not consider this procedure to be applicable to its Swiss network area. For this reason, EGO was not involved in the preparation of this consultation document beyond the coordination of technical framework conditions (in its role as adjacent network operator). As a result, the entry capacity to be created on the Swiss side will not be considered in this document, so that they will not be included in the economic viability test or in the form of bundled marketing.

## 2. Project Proposal

The TSOs involved have, after a detailed assessment of possible measures to meet the market demand, identified a technically reasonable and efficient way to provide the requested exit capacity. This project proposal is schematically described in Figure 1 by the two red arrows. The consideration of the required measures starts at the Burghausen network node and ends at the German sovereign border (here assumed at a distance of approx. 10 meters from the German shore) at a point in the Lake Constance region which has yet to be defined in concrete terms. Both economic and network topological aspects were considered in the selection of the project proposal.

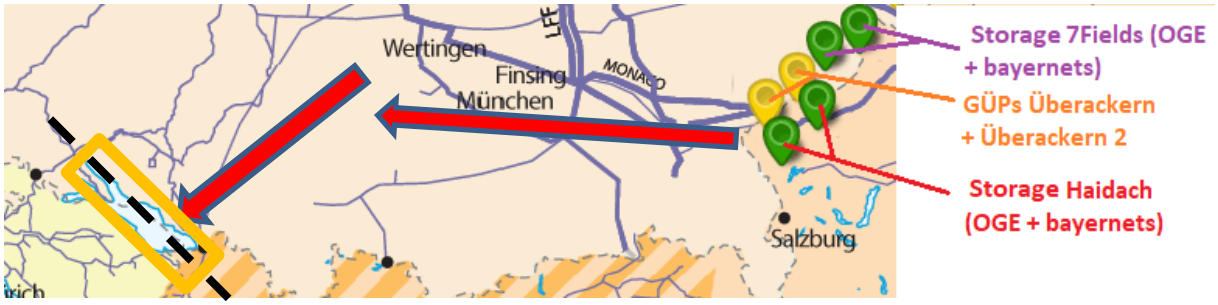

Figure 1: Schematic project proposal

Transport via Hittistetten:

The following project proposal corresponds to the technical parameters agreed with the grid operator EGO.

The red arrows in Figure 1 show the transport of the requested capacity from the Burghausen network node through the Burghausen-Finsing pipeline, which is solely owned by bayernets, and the Amerdingen-Anwalting-Schnaitsee pipeline, which is fractionally owned by bayernets and OGE, to the Wertingen node. From the Wertingen junction, the transport will be carried out via the planned bayernets transport system Wertingen-Kötz (NEP-ID 402-02) as well as via a new pipeline to be constructed from Kötz to Hittistetten. From there the gas volumes in Hittistetten will be transferred to terranets bw. The further transport is carried out via the transport systems of terranets bw (e.g. DOB pipeline), as well as via a new pipeline section to be constructed from the existing network of terranets bw to the newly created IP in the Lake Constance region. The following measures are necessary for the network expansion:

1. connecting pipeline (extension) from Wertingen-Kötz to Hittistetten (approx. 18 km)
2. connecting pipeline from the existing network of the terranets bw to the Lake Constance landing point (approx. 10 - 20 km)
3. compressor station terranets bw

The cost estimate of the above mentioned measures amounts to approx. € 137 million (based on the planned cost rates of the draft NEP2020-2030).

For the above project, a transfer pressure of approx. 43 barg will be provided at the transfer point to EGO in the Lake Constance region and compressed by EGO itself to the requested pressure of 55 barg.

**Result:**

As a result of the planning phase, the TSOs involved recommend that the requested capacity is made available via the route described.

## 3. Offer Level

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

| **Period from** | **Period to** | **Free available capacity considering 20 % reservation quote; kWh/h** | **Expansion-Level I from demand request considering 20 % reservation quote; kWh/h** | **Total Offer Level I; kWh/h** |
|---|---|---|---|---|
| 01.10.2026 | 01.10.2041 | 0 | 1.600.000 | 1.600.000 |

Table 1: Offer Level

## 4. Alternative Allocation Mechanism

Not applicable.

## 5. Provisional Timeline

The project described above will be launched after the conclusion of the auction of annual capacity in July 2021 on the capacity booking platform PRISMA. Operational readiness of all technical equipment is scheduled for October 1, 2026 at the earliest - under the assumption that the economical test (BNetzA tool) conducted after the auction is successful.
The steps of the incremental process can be described as follows:

| **Start Date** | **End Date** | **Description** |
|---|---|---|
| 20.07.2020 | | Publication of the consultation documents |
| 20.07.2020 | 10.09.2020* | Public consultation |
| 11.09.2020* | 06.10.2020* | Planning of the offer levels by the TSOs in close cooperation with the NRA |
| 07.10.2020* | | Submission of the project proposal to the NRA |
| 07.10.2020* | 06.04.2021 | Processing of the project proposal by the NRA |
| 07.04.2021 | | Approval and publication of the required parameters by the national regulatory authorities pursuant to Art. 28 (1) NC CAM |
| 08.04.2021 | 04.05.2021 | Adaptation of the offer levels by the TSOs in consideration of the requirements of the NRA |
| 05.05.2021 | | Publication of the approved parameters, the capacity products and the template of the contract(s) for the capacities offered within the framework of the network expansion project |
| 05.07.2021 | | Annual auction/Economical test |

Table 2: Provisional Timeline *adjusted on 10th of August 2020

The above dates are provisional and may therefore be subject to change. If the results of the economical test are positive, the project will subsequently be included in the process of drawing up the German Gas Network Development Plan (NEP Gas 2022 - 2032) and taken into account in the scenario framework and in the (national) modelling.

## 6. Additional General Terms and Conditions

The draft of the additional GT&C is as Appendix I attached to this consultation document.

## 7. IND and RP according NC TAR

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

## 8. F-Factor

According to Article 27 (3) NC CAM the consultation shall cover the level of user commitments, expressed as an estimate of the f-factor in accordance with Article 23, which, after having consulted with the transmission system operators, is proposed and subsequently approved by the concerned national regulatory authorities.
The f-factor for each offer level shall be set by the national regulatory authority, taking into account the following (Article 23 (1) NC CAM):

a) the amount of technical capacity set aside in accordance with Article 8(8) and (9);
b) positive effects 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 lifetime of the asset;
d) the extent to which the demand for the capacity established in the incremental capacity project can be expected to continue after the end of the time horizon used in the economic test.

For the sake of transparency and for the purposes of economic test according to Article 22 NC CAM, the BNetzA created and published a calculation tool (hereinafter BNetzA Tool):

https://www.bundesnetzagentur.de/EN/Areas/Energy/Companies/GridDevelopment/Gas/IncrementalCapacities/IncrementalCap_node.html;jsessionid=087EDAE9AA71BFF001A8CEC95F8CDCD8

The BNetzA Tool filled out for the assessed offer level is attached to this consultation document as Appendix II.

The BNetzA Tool includes mathematical assessment of a possible f-factor according to points a), c) and d). The f-factor is calculated as rate of the present value of binding commitments of network users for contracting capacity within the time horizon of the first yearly capacity auction, in which the incremental capacity has been offered, according to Article 22 (1) (a), compared to the present value of all expected commitments of network users for

contracting respective capacity. The BNetzA Tool uses the latest known reference price inflated to the respective year as a respective estimated reference price according to the Article 22 (1) (a) (i) NC CAM. Since the calculation of the increase in the allowed revenue of the transmission system operator associated with the incremental capacity included in the respective offer level does not take inflation into account, the inflation index of the reference prices was also set at 0%.

On basis of the regulatory requirements of the BNetzA (decisions REGENT (BK9-18/611-GP) / AMELIE (BK9-18/607), reference prices have been formed as a so-called uniform stamp fee since 1st of January 2020.

The current forecast of the reference price is the reference price of the market area THE published in the draft of the BNetzA decision REGENT 2021 for the year 2023 in the amount of 3.78 €/(kWh/h)/year, including a discount of 10% for dynamically allocable capacities (DZK). This reference price is only used for the profitability test and will not be part of the contract.

| | |
|---|---|
| Indicative reference price THE for 2023 | 3.78 €/(kWh/h)/a |
| Rebate for DZK (10 %) | 3.402 €/(kWh/h)/a |

Table 3: Calculation Reference price

The reference price was used in the calculation of the present values of all expected commitments by network users to contract the respective capacities in the period 2026-2041 in a non-inflationary manner. Thus, a possible future increase in the reference price was not taken into account.

Since a new IP to be created is planned, there are no existing capacities and the assumptions regarding the booking of the new capacities to be created are explained below.

The f-factor proposed as follows:

a) Technically available capacity retained in accordance with Art. 8 (8) NC CAM and BNetzA regulation BK7-15-001 (KARLA Gas) in the amount of 20% of the new technical capacity to be created contained in the respective offer level is 400,000 KWh/h.

   It is not assumed that all reserved capacity to Switzerland will be fully booked in each year, as there is no security regarding possible short-term bookings (NC CAM Article 23 (1) a)). This estimation is based in particular on the fact that, to the knowledge of the FNB, there is no possibility so far of reaching the Oltingue (FR) / Rodersdorf (CH) and Griespass (CH) / Passo Gries (IT) interconnection points, which connect the market areas THE, Switzerland, France and Italy via the TRANSITGAS pipeline, from the newly created IP in the Lake Constance region. The newly created IP could therefore not be used for transit transports, but would be used to supply the adjacent distribution network on the Swiss side, according to EGO. For this reason, it seems likely from the point of view of the participating TSOs that short-term

bookings in the network of EGO would only be made during peak load periods to cover additional demand that cannot be supplied by the existing network connections in the direction of the TRANSITGAS system. Since extensive bookings will already be necessary to pass the economical test, the TSOs assess this additional demand in peak load periods as largely covered by the existing bookings. For this reason, the TSOs estimate that no further short-term bookings of reserved capacity can be taken into account.

The TSOs concerned invite the market to comment if it has information that would justify a different assessment of the reserved capacity bookings.

b) The TSOs could not identify any other positive effects under NC CAM Article 23(1)(b)

c) According to Art. 11 (3) NC CAM, bidding levels for new capacity to be created may be offered in the context of annual auctions for a maximum period of 15 years from the start of operational use.

For the period from 2026/27 to 2040/41 it was assumed that the new capacity to be created offered in the 2021 annual auctions will be fully booked. The economic lifetime of the assets was determined in accordance with the regulatory and usual depreciation periods. The investment described refers, among other things, to the compressor station. According to Annex 1 to Section 6 (5) of the Gas Network Access Ordinance (GasNZV), the regulatory and usual lifetime for compressor stations is 25 years. The start of operational use is scheduled for 2026, the last depreciation for the compressor station will therefore be in 2051. For the period from 2040/41 to 2050/51, it was assumed that the entire new technical capacity to be created will not be booked (NC CAM Article 23(1)(c)). To the knowledge of the affected TSOs and as already described before the newly created IP could not be used for transit transports but would be used to supply the adjacent distribution network on the Swiss side, according to EGO. For this reason, it seems likely from the point of view of the participating TSOs that short-term bookings would only be made during peak load periods to cover additional demand that cannot be supplied by the existing network connections in the direction of the TRANSITGAS system. Therefore, the TSOs estimate that no significant long-term bookings will be conducted in the period from 2040/41 to 2050/51 especially as the capacities will be marketed after July 2021 and will have therefore no relevance regarding the economic test. An essential motivation for network users to perform long-term bookings will therefore not apply for capacities in the period from 2040/41 to 2050/51.

The TSOs concerned invite the market to comment if it has information that would justify a different assessment of the capacity bookings.

d) The relevant year for determining the time horizon of the economic lifetime and performance audit is 2051, and no accounting entry capacity has been taken into account for the period after 2051 (NC CAM Article 23 (1) d)) since, in the TSO's view,

there is no sufficient certainty that such bookings will actually be made for the reasons described above.

The TSOs concerned invite the market to comment if it has information that would justify a different assessment of the capacity bookings.

Offer level and corresponding estimated bookings:

| From | To | Offer Level 0, bookable existing capacity, KWh/h | Incremental capacity I, taking into account reservation quote of 20%, KWh/h | Total Offer Level I, KWh/h | Estimated bookings of incremental capacity, assumed for the economic test |
|---|---|---|---|---|---|
| 01.10.2026 | 01.10.2041 | 0 | 1.600.000 | 1.600.000 | 1.600.000 |

Table 4: Estimated bookings

The f-factor determined by the TSOs under the assumptions described above is 1.

If all new capacity to be created were allocated at the reference price, no sufficient revenues to achieve a positive result in the performance audit. In such cases, Article 33 of "Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures" (NC TAR) provides that a mandatory minimum premium may be applied in the first auction or in the first alternative allocation mechanism in which the new capacity to be created is offered. The mandatory minimum premium calculated on the basis of the assumptions described above for capacity reservations is 10.509 €/kWh/h/a. As the mandatory minimum premium may only be applied in the first annual auction and the f-factor is calculated as the ratio of the net present value of the firm bookings in the first annual auction to the net present value of all expected bookings of the respective capacity, an increase of the respective reference price by the mandatory minimum premium does not cause a mathematical adjustment of the f-factor of 1.

The calculations were carried out at an early stage of the procedure for incremental capacity to be created and are based on assumptions that can be updated as the process progresses in accordance with the state of knowledge. In the event of such an update of assumptions, the calculated mandatory minimum premium may be adjusted accordingly.

## 9. Received additional Demand Indication

No additional demand indications received after 6th of June 2019

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## 10. Impact on Usage of Gas Infrastructure

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

## 11. Contact Information


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