

# Request for granting an exemption from the obligation to enable permanent physical bi-directional capacity at the IP Cieszyn



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## I. Summary

Using this document NET4GAS, s.r.o (“NET4GAS”) and Operator Gazociągów Przesyłowych GAZ-SYSTEM S.A. (“GAZ-SYSTEM”) apply, each individually on the respective side of the border, for granting an exemption from the obligation to enable permanent physical bi-directional capacity at the IP Cieszyn according to Art. 5 par. 4 lit. b) of Regulation (EU) 2017/1938 (“SoS-Regulation”).

NET4GAS, the transmission system operator of the Czech Republic, and GAZ SYSTEM, the Polish transmission system operator, cooperated jointly on a preparation of the presented request for exemption.

The request is based on the elements set out in Art. 5 par. 5 of the SoS-Regulation. Calculations made show that the security of gas supply will not be improved considerably in the Czech Republic or in neighbouring member state by enabling reverse flow from Poland towards the Czech Republic at the IP Cieszyn. Therefore, the costs for construction of reverse flow capacity substantially outweigh benefits of negligible increase in the security of supply. Moreover, no binding market demand for the capacity at the IP Cieszyn in the direction from Poland to Czech Republic was received in the annual capacity auction in July 2021 for the incremental project development in 2019-2021 period in line with the Regulation (EU) 2017/459 (“CAM NC”) requirements.

The consultation with TSOs potentially concerned pursuant to par. 2 of Annex III SoS-Regulation was performed (*This part will be completed after consultation*).

## II. Cost-benefit Analysis in line with Article 5 (5) of the SoS-Regulation

### A. Assessment of Market Demand

Both transmission system operators (TSOs) - Czech NET4GAS and Polish GAZ-SYSTEM, regularly assess the market demand at the Cieszyn cross border point, since the STORK I pipeline was put into operation in 2011.

NET4GAS carried out a non-binding market survey with the aim of identifying additional market-oriented demand for capacity in the beginning of 2016. The submitted requests concerned transmission between the Czech Republic and the German (former Gaspool market area), Slovak, and Austrian markets. None of the demands concerned transmission from Poland to the Czech Republic. This fact was also presented in the previous “Application for Exemption from the Requirement to Enable Bidirectional Capacity at the Cieszyn Cross-Border Point, STORK I Pipeline”.

The first incremental capacity assessment according to CAM NC was made in 2017: <https://www.entsog.eu/capacity-allocation-mechanisms-nc#incremental-capacity-process-2017-demand-assessment>.

In accordance with the CAM NC both TSOs, NET4GAS and GAZ-SYSTEM, launched an incremental capacity process as a result of non-binding market demand assessment in 2019.

In compliance with CAM NC<sup>1</sup>, both TSOs offered a bundled offer level of incremental capacity at IP Cieszyn/Český Těšín in the Polish-Czech Interconnection project at the annual capacity auction on 5 July 2021 in the amount of 1 270 000 kWh/h in the direction from Poland towards the Czech Republic. No amount of incremental capacity was booked by any market participant in the abovementioned annual capacity auction and therefore the economic test ended with a negative result on both sides of the Polish-Czech border.

The project was terminated according to Art. 22(3) of CAM NC as no offer level resulted in a positive outcome of the economic test, thus the specific incremental capacity process was terminated. For more details on the MDAR for the incremental process 2019-2021 please see: NET4GAS <https://www.net4gas.cz/en/customers/products-services/new-transmission-capacity/czech-polish-connection/>.

**GAZ-SYSTEM:** <https://www.gaz-system.pl/centrum-prasowe/aktualnosci/informacja/artykul/203367/>

Currently, the third incremental capacity process is running. In the demand assessment phase, which took place from 5 July 2021 to 30 August 2021, both TSOs received non-binding demand indications for firm capacity at the IP between the entry-exit system of GAZ-SYSTEM (Poland) and the entry-exit system of NET4GAS (Czech Republic). The indications were similar to the MDAR process two years ago.

The market demand assessment report (MDAR) for incremental capacity between the Czech Republic and Poland was published on 25 October 2021 at the following links: NET4GAS: <https://www.net4gas.cz/en/customers/products-services/new-transmission-capacity/incremental-capacity-process-2021/>

**GAZ-SYSTEM:** [https://www.gaz-system.pl/fileadmin/pliki/taryfa/pl/20211011\\_MDAR\\_2021\\_PL-CZ\\_GAZ-SYSTEM\\_N4G\\_FINAL\\_PL.pdf](https://www.gaz-system.pl/fileadmin/pliki/taryfa/pl/20211011_MDAR_2021_PL-CZ_GAZ-SYSTEM_N4G_FINAL_PL.pdf)

Indications submitted to each TSO were not equal due to the fact that not all market participants decided to submit indications on both sides of the entry-exit system border.

In accordance with Article 28 of CAM NC establishing a network code on capacity allocation mechanisms, NET4GAS in cooperation with GAZ-SYSTEM will prepare the proposal for the incremental capacity project for the market border between the Czech Republic and Poland and will submit it to their respective national regulatory authorities for approval. The capacity is expected to be offered in the annual capacity auction in July 2023.

## B. Projections for Demand and Supply

### 1. Development of Annual Natural Gas Demand in the Czech Republic

The estimate of the development of annual gas demand in the Czech Republic was taken over from the Report on Future Expected Electricity and Gas Consumption and on the Method of Ensuring the Balance

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<sup>1</sup> The procedure was carried out in accordance with the Regulation (EU) 2017/459 (CAM NC) and on the basis of approval of the incremental capacity project made by decisions of the respective national regulatory authorities (decision of the President of the Polish Energy Regulatory Office No. DRR.WRG.748.9.2020.ABu1 on 29 April 2021 for Poland and decision of the Czech Energy Regulatory Office 09654-15/2020-ERU on 5 May 2021 for the Czech Republic).

between Electricity Supply and Demand published by OTE (link: [https://www.ote-cr.cz/cs/o-spolecnosti/vyrocní-zpravy?set\\_language=cs](https://www.ote-cr.cz/cs/o-spolecnosti/vyrocní-zpravy?set_language=cs)). According to NET4GAS, this document sufficiently reflects possible developments in gas demand in the coming years. Significant factors in determining the estimate of this future development of gas demand, are the increasing tendency to replace lignite with gas in the heating industry, the industry sector and households. The use of gas for electricity generation and, last but not least, the use of gas for clean mobility in the form of CNG and LNG are also taken into account. The determination of total gas consumption is given by the sum of all these segments (households, industry sector, heating, electricity, and net mobility) and to all this are added losses in gas distribution (The parameter "distribution losses" is defined according to the EUROSTAT methodology.)

In the tables 1 and 2 and Graph 1 is presented historical consumption, including an estimate of gas consumption until 2031.

**Table 1: Historical Gas Consumption in the Czech Republic in the years 2011 – 2020**

(GWh/y)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Households	25 889	26 131	26 279	21 253	23 123	25 309	25 902	24 279	23 200	24 728
Industry sector	50 513	48 668	48 463	45 761	46 876	48 087	51 056	48 089	48 539	49 016
Net mobility	133	161	176	318	463	634	721	752	799	881
Heating plants	11 541	11 894	12 293	10 527	10 466	11 036	9 569	9 262	9 385	10 001
Power plants	189	129	1 089	475	1 352	3 723	3 481	3 615	7 182	6 698
Distribution losses	1 641	1 599	1 512	1 548	1 492	1 424	1 186	1 132	1 124	1 053
<b>TOTAL</b>	<b>89 905</b>	<b>88 581</b>	<b>89 811</b>	<b>79 882</b>	<b>83 772</b>	<b>90 213</b>	<b>91 914</b>	<b>87 129</b>	<b>90 230</b>	<b>92 376</b>

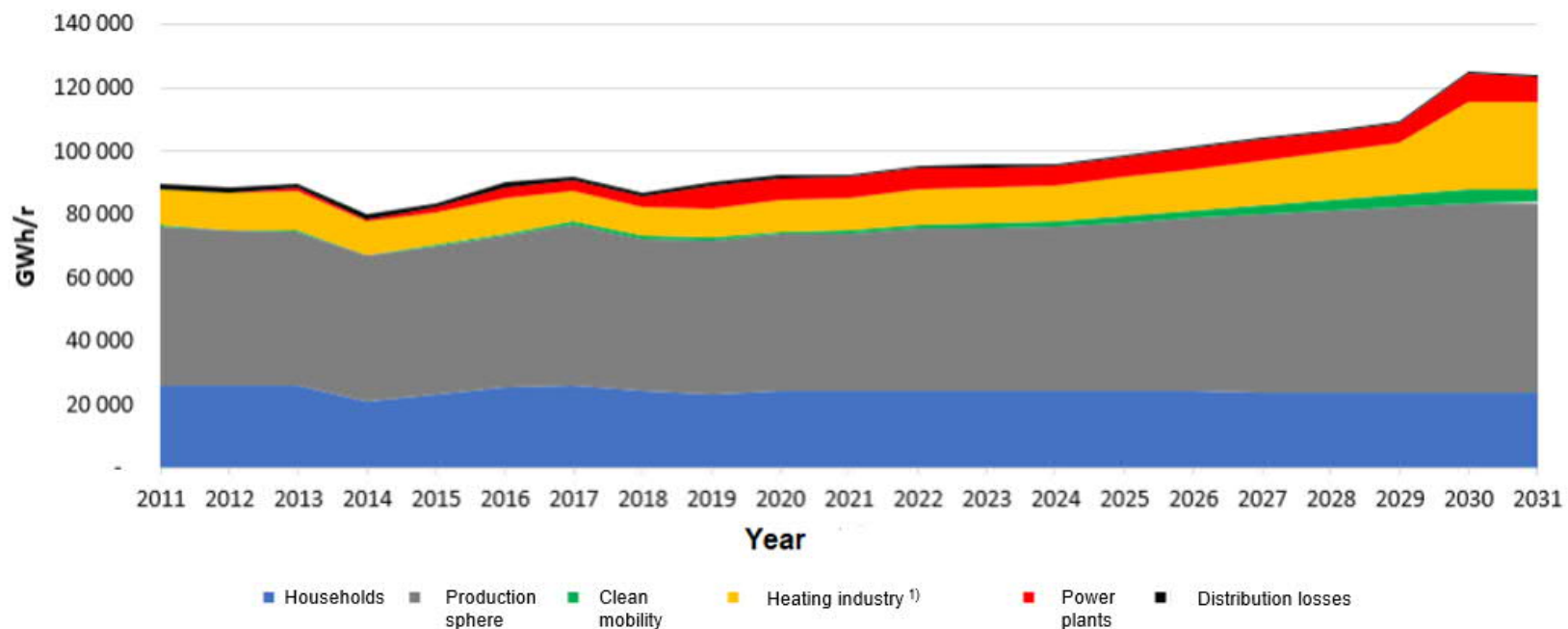
Source: OTE

**Table 2: Prognosis of Annual Gas Consumption in the Czech Republic between the years 2021-2031**

(GWh/r)	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Households	24 656	24 573	24 486	24 394	24 297	24 197	24 094	23 987	23 877	23 766	23 628
Industry sector	49 447	51 039	51 390	51 697	53 172	54 613	56 018	57 383	58 708	59 989	60 160
Net mobility	1 019	1 270	1 495	1 758	2 062	2 377	2 803	3 228	3 665	4 048	4 321
Heating plants	10 036	11 113	11 132	11 149	12 172	13 180	14 171	15 147	16 109	27 507	27 609
Power plants	6 603	6 508	6 414	6 320	6 226	6 321	6 416	6 511	6 605	9 409	7 572
Distribution losses	982	911	841	770	699	629	558	500	500	500	500
<b>TOTAL</b>	<b>92 743</b>	<b>95 415</b>	<b>95 757</b>	<b>96 087</b>	<b>98 628</b>	<b>101 317</b>	<b>104 059</b>	<b>106 756</b>	<b>109 464</b>	<b>125 218</b>	<b>123 790</b>

Source: OTE

**Graph 1: Historical Gas Consumption and Prognosis of Gas Consumption in the Czech Republic between the years 2011-2031**



1) Heating industry including correction of combined production of electricity and heat

Source: OTE

## 2. Development of Maximum Daily Natural Gas Demand in the Czech Republic

The prognosis of the maximum daily consumption of gas in the Czech Republic for years 2022-2031 is based on so called the worst possible scenario. Therefore, the prognosis includes the highest actual demand from one day with the extraordinary high consumption, which occurs with the statistical probability once in 20 years (In the Czech Republic it is 23<sup>rd</sup> January 2006, according to SoS-Regulation), which is adjusted by all planned projects with final and expected investment decision, which would increase daily demand in the Czech Republic over the next ten years. In particular, NET4GAS took into account increasing demand of the end customers connected to distribution systems and the planned consumption of directly connected customers. Planned projects enter the analysis by their first full calendar year of operation.

The following Table 3 shows the Estimate of the maximum daily gas demand in the Czech Republic in years 2022-2031. Graphical depiction of the prognosis of the maximum daily demand trend in the Czech Republic can be found in Graph 2.

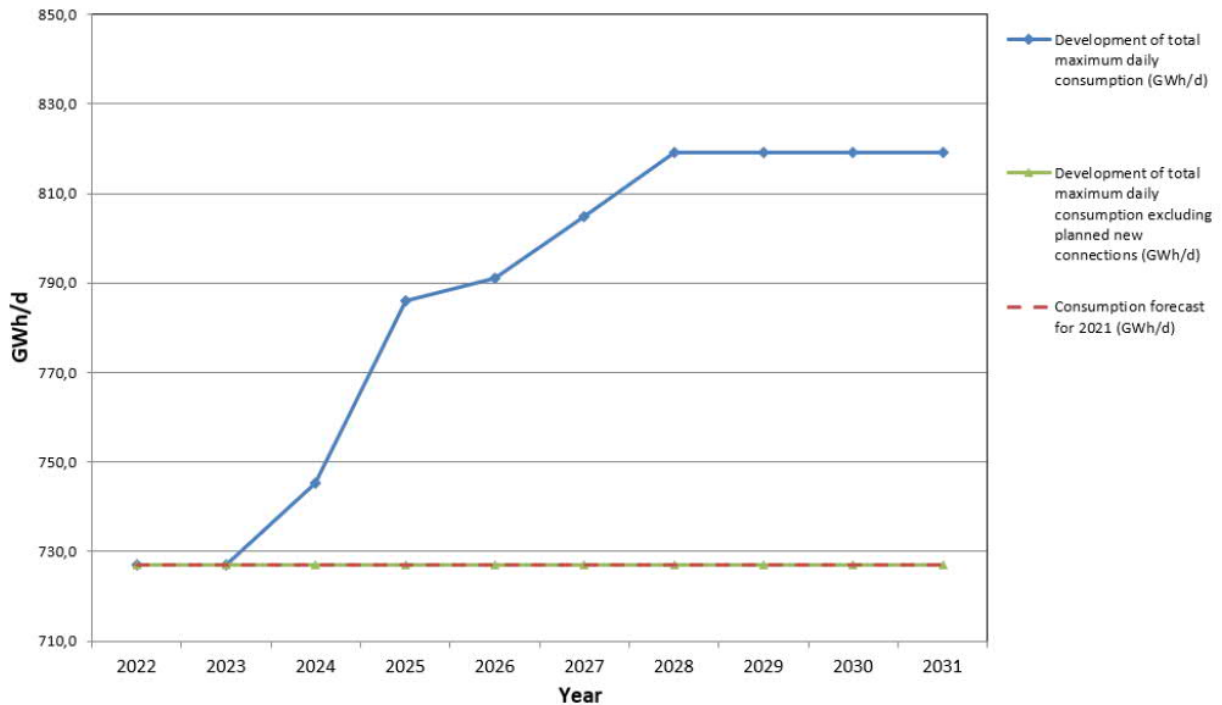
**Table 3:** Estimate of Maximum Daily Gas Consumption in the Czech Republic between the years 2022-2031

Maximum Daily Consumption in CZ	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Development of total maximum daily consumption <sup>1)</sup> (GWh/d)	727.0	727.0	745.4	786.1	791.2	804.8	819.3	819.3	819.3	819.3
Development of total maximum daily consumption excluding planned new connections from Chapter 6 (GWh/d)	727.0	727.0	727.0	727.0	727.0	727.0	727.0	727.0	727.0	727.0

<sup>1)</sup> Planned connections of directly connected customers to the transmission system included.

Source: NET4GAS (Ten-Year Network Development Plan of the Transmission System in the Czech Republic 2022-2031) and OTE

**Graph 2: Estimate of Max. Daily Gas Consumption in the Czech Republic between the years 2022-2031**



Source: NET4GAS (Ten-Year Network Development Plan of the Transmission System in the Czech Republic 2022-2031) and OTE

### 3. Development of Supplies into the Czech Republic

NET4GAS does not have access to gas supply contracts for the Czech customers and therefore it can provide an analysis of neither current nor future supplies into the Czech Republic. Nevertheless, one of the goals of the TSO is to analyse the adequacy of the total entry capacity of the transmission system for national consumption during the next ten years and to develop the grid correspondingly. The transmission system operator therefore compared the maximum daily entry (offtake) capacity of the transmission system for the daily consumption of the Czech Republic (a sum of entry capacities of the transmission system for national consumption established on the basis of contractual obligations between the transmission system operator and the distribution system operators and directly connected customers) with the figures of the outlook for the maximum daily consumption in the Czech Republic. After comparing these parameters, it can be concluded that the contractual offtake capacity for national consumption is sufficient for the next ten years to cover the maximum daily consumption of the Czech Republic determined on the worst-case scenario (defined in Chapter 2). The total entry capacity of the transmission system for national consumption provides adequate flexibility to increase gas supplies to the Czech Republic in the coming years, if necessary, for example by estimating the development of annual gas consumption from the Report on Future Expected Electricity and Gas Consumption and Balancing Supply and electricity and gas demand published by OTE. This is one of the most important prerequisites for the functioning of the gas market.



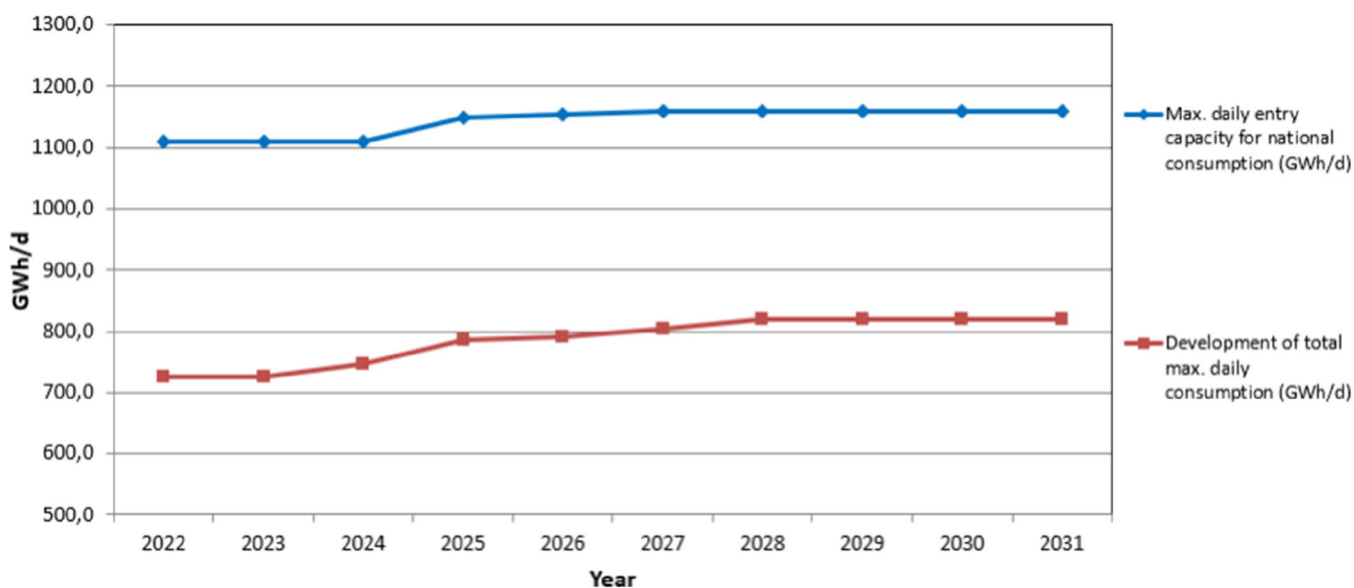
**Table 4: Transmission System Entry Capacity Usage for the Czech Republic Purposes between the Years 2022-2031**

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Max. daily entry capacity for national consumption (GWh/d)	1108,9	1108,9	1108,9	1149,6	1154,7	1159,8	1159,8	1159,8	1159,8	1159,8
Development of total max. daily consumption (GWh/d)	727,0	727,0	745,4	786,1	791,2	804,8	819,3	819,3	819,3	819,3
Maximum Utilization (%)	65,6	65,6	67,2	68,4	68,5	69,4	70,6	70,6	70,6	70,6

Note: It is a sum of entry capacities of the transmission system for national consumption established on the basis of contractual obligations between the transmission system operator and the distribution system operators and directly connected customers. The maximum daily entry capacity for national consumption also includes the planned connections to the transmission system with FID.

Source: NET4GAS (Ten-Year Network Development Plan of the Transmission System in the Czech Republic 2022-2031) and OTE

**Graph 3: Transmission System Entry Capacity Usage for the Czech Republic Purposes between the Years 2022-2031**



Source: NET4GAS (Ten-Year Network Development Plan of the Transmission System in the Czech Republic 2022-2031) and OTE

## C. The Possible Economic Impact on Existing Infrastructure

The Czech gas transmission system operator NET4GAS and the Polish gas transmission system operator GAZ-SYSTEM have in the past repeatedly surveyed shippers' interest in increasing capacity of gas transmission via IP Cieszyn (as described in chapter A) including their interest in reverse-flow supply at this IP. However, any interest in increasing capacity, including reverse-flow capacity from Poland to the Czech Republic, has not yet been confirmed in the binding annual auction. Since an investment for enabling bi-directional capacity between the Czech Republic and Poland is not required by the market, this would require a coordinated decision on cost allocation before any investment decision to enable bi-directional capacity is taken (Article 5 (7) of SoS-Regulation). The cost allocation shall consider the principles described and the elements of the contained in Article 12 (4) of Regulation (EU) No 347/2013, in particular the proportion of the benefits of the infrastructure for the increase of the security of gas supply of the Member States concerned as well as investments already made in the infrastructure in question.

To ensure firm reverse-flow capacity from Poland towards NET4GAS system, the Czech transmission infrastructure would require significant infrastructure changes (for details please see chapters D and E) such as building of a new pipeline DN500 PN63 in the length of approx. 61 km, incl. line valves, between Libhošť and Třanovice and building a new compressor station in Libhošť area, which would allow reverse-flow mode compression into DN 500 pipeline.

In order to ensure the possibility of transporting gas in the direction from Poland to the Czech Republic with a maximum capacity of 1,270,000 kWh/h, construction of a new DN 500 pipeline Skoczów - Komorowice – Oświęcim (length 53 km) and modernisation of the Cieszyn metering station are required on the Polish side.

Total estimated costs of the whole investment are in the amount of EUR 234 million (155 mil. EUR for CZ part plus 79 mil. EUR for PL part).

The designed scope and the expected capital expenditures to be borne by both operators significantly outweigh the benefits in terms of increased security of supply, both on a national and regional basis.

Based on the above-written, it can be also assumed that the whole investment (including the Czech and Polish part) would be most probably allocated to the Czech side in a full range, as the Czech Republic would be “the only beneficiary” of the realization of reverse-flow (as indicated in chapter F, the reverse-flow however would not bring additional value in security of supply for the Czech customers).

## D. Feasibility Study

### 1. Existing Capacity

#### **Existing capacity (STORK I)**

Currently is the Czech gas transmission system connected with the Polish gas transmission system via STORK I pipeline. Capacity at the IP Cieszyn is allocated up to gas year 2025/2026 on the Polish side. Technical parameters of the STORK I cross-border pipeline (DN500 PN63 pipeline Třanovice (CZ) – Cieszyn (CZ/PL) – Skoczow (PL)):

Border delivery pressure:

2.65 MPa in the summer (May – September)

4.5 MPa in the winter (October – April).

Pipeline diameter: DN 500

Technical capacity in the direction Czech Republic – Poland at 20 °C:

Winter: 2,680,000 m<sup>3</sup>/day

Summer: 407,000 m<sup>3</sup>/day

Annual volume: Approximately 530 million m<sup>3</sup>

Technical capacity in the direction Poland – Czech Republic:

There is no firm capacity offered in the direction PL→CZ. Based on a concluded interconnection agreement between both TSOs transmission could take place in this direction in emergency situations at a reduced pressure of 1.7 MPa. Amount to be agreed on operational level.

### 2. Technical solution securing reverse flow

Technical capacity in the direction Poland - Czech Republic: 1 270 000 kWh/h

Border delivery pressure: 46 barg

Start of trial operation: planned for 2030

Technical solution based on the above-mentioned technical parameters considers building of a new infrastructure to enable bi-directional capacity from Polish to the Czech gas transmission system. Please see, the detailed description and map below.

New necessary infrastructure consists of the 2 below mentioned parts on the Czech side:

**1) New pipeline DN500 PN63 incl. line valves, between Libhošť and Třanovice**

To increase the capacity between the Libhošť and Třanovice, a new DN 500 DP 63 pipeline in the length of 61 km is being considered. On both sides of the pipeline (beginning and end) a new connection to existing system needs to be built including gas pressure regulation.

**2) New CS Libhošť**

A new CS is planned to be equipped with turbosets 2+1 (2 x 3,5 MW and 3,5 MW as back-up) or equivalent, filters, coolers, anti-pumping system, and other auxiliary technology.

New necessary infrastructure on Polish side includes:

- 1) Construction of the new DN 500 gas pipeline Skoczów – Komorowice – Oświęcim (L=53 km)
- 2) Adaptation of metering station Cieszyn for hydrogen readiness

**Figure 1:** Map showing location of infrastructure necessary to enable permanent bi-directional capacity between CZ and PL.



## E. The Costs of Bi-directional Capacity including the Necessary Reinforcement of the Transmission System

### Investment costs on the Czech side:

Cost of material	EUR 55.7 million
Construction works	EUR 45.5 million
Design, Engineering, Plots & Easements, Project mngt	EUR 22.8 million
Reserve (budget accuracy $\pm$ 25%)	EUR 31 million
Total costs	EUR 155 <sup>2</sup> million

Note: The total investment costs do not include operating costs.

<sup>2</sup> NET4GAS used the exchange rate 1EUR=26 CZK for the calculation of the costs in EUR.

### **Investment costs on Polish side:**

Investment budget

EUR 79<sup>3</sup> million (including 25 % buffer)

Note: The total investment costs do not include operating costs.

The project is developed as a hydrogen ready one on both sides of the border. While 100% H2 readiness for the pipeline section and 10% H2 readiness for the compressor station are declared for the Czech part of the project, no concrete level of H2 readiness has been agreed and introduced on Polish side of the border for this phase of preparations. The minimum assumed level of H2 readiness for Polish part is 5% proposed by the new EU Gas Package (as included in the proposal for regulation of the European parliament and of the Council on the internal markets for renewable and natural gases and for hydrogen). According to Art. 20 of the proposed regulation transmission system operators shall accept gas flows with a hydrogen content of up to 5% by volume at interconnection points between Union Member States in the natural gas system from 1<sup>st</sup> October 2025.

## **F. The Benefits to the Security of Gas Supply Taking into Account the Possible Contribution of Bi-directional Capacity to Meet the Infrastructure Standard**

The analysis of security of gas supply described below is based on several aspects. First the analysis of the Czech existing infrastructure standard N-1 and the impact of reverse flow capacity from Poland to the Czech Republic on N-1 calculation. Second, common risk assessment of risks groups of which is the Czech Republic as benefiting country of reverse-flow, a member.

In the Czech Republic, the competent authority providing measures based on the SoS-Regulation, is the Ministry of Industry and Trade.

### **1. N-1 analyses**

The infrastructure standard N-1, as defined in Annex II in the SoS-Regulation, describes the ability of the technical capacity of the gas infrastructure to satisfy total gas demand in the calculated area in the event of disruption of the single largest gas infrastructure during a day of exceptionally high gas demand occurring with a statistical probability of once in 20 years. As per Annex II of the SoS Regulation the results of the N-1 formula shall be equal to the minimum of 100%.

In the case of the Czech Republic this value amounts to 452.5 % in 2022 and highly exceeds the requirement of the regulation. In the long-term horizon (2022-2031) the Czech infrastructure standard N-1 remains at a very high level. The realization of reverse-flow at the IP Cieszyn would increase the already high level of N-1 just by 4%. The Czech N-1 for at least next 10 years, i.e., the security of gas supply, will

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<sup>3</sup> Average monthly exchange rate of Narodowy Bank Polski for 31st December 2021 (1EUR= 4,60PLN) was used for calculation of the costs in EUR

stay at a very high level. The N-1 of the Czech gas infrastructure exceeds the minimum requirement (100%) by more than 310 % in years 2022-2031, see the table below.

**Table 5: Security of gas supply for the Czech Republic in 2022-2031 according to the N-1 formula for existing infrastructure and assuming capacity of the reverse-flow PL→CZ**

(GWh/d)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Pm	5,5	5,7	5,6	5,7	4,9	4,0	3,3	3,0	2,8	2,6
Sm	618,0	618,0	712,3	712,3	712,3	712,3	712,3	712,3	712,3	712,3
EPm v1	4 306,7	4 306,7	4 306,7	4 306,7	4 306,7	4 306,7	4 306,7	4 306,7	4 306,7	4 306,7
<b>EPm v2 (including PL-CZ MDAR 2021)</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 306,7</b>	<b>4 337,2</b>
Im (Lanzhot)	1 640,4	1 640,4	1 640,4	1 640,4	1 640,4	1 640,4	1 640,4	1 640,4	1 640,4	1 640,4
Dmax	727,0	727,0	745,4	786,1	791,2	804,8	819,3	819,3	819,3	819,3
Min. Request according to EU 2017/1938 (%)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
N-1 (%) [WITHOUT PL-CZ MDAR 2021]	452,5%	452,5%	454,0%	430,5%	427,6%	420,3%	412,8%	412,8%	412,7%	412,7%
N-1 (%) [WITH PL-CZ MDAR 2021]	452,5%	452,5%	454,0%	430,5%	427,6%	420,3%	412,8%	412,8%	412,7%	416,4%

Source: NET4GAS

## 2. Regional risk assessments of risk groups

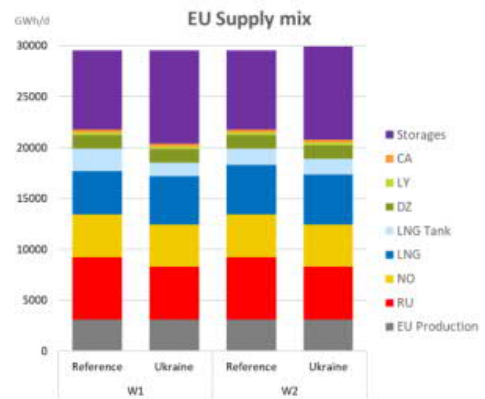
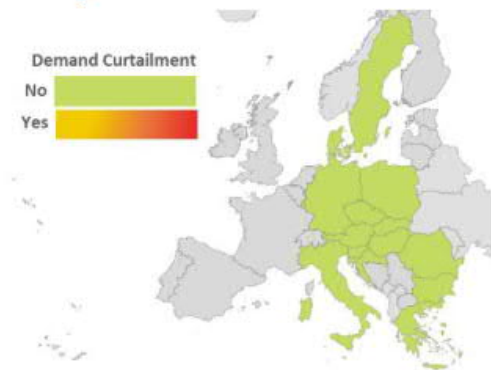
A common assessment at regional risk group level is prepared by the respective competent authorities every four years as per Article 7 of the SoS-Regulation. Based on Annex I of the SoS Regulation the Czech Republic is a member of risk groups Ukraine, Belarus and Baltic Sea. New data is also available for the newly established group in Eastern gas supply Corridor - North-Eastern, which was taken into account in the risk assessment.

### Risk group Ukraine

The Ukraine common risk assessment scenario for Disruption of all supply routes via Ukraine to the EU (simulation of 2-week/20 years, simulation from 15 – 28 Feb) shows that supplies are used at the maximum potential for the 2-week cold spell. The overall flows of Russian gas are limited by capacities via Belarus to Poland (reduced capacities as of 2023), Nord Stream 1 and 2 (used up to the technical maximum), Turk Stream (all routes are used up to the technical maximum). Nevertheless, the decrease in Russian imports could be replaced by LNG supply as well as utilisation of the existing storage capacity. The conclusion in this case is that there are no risks for either Poland or the Czech Republic.

**Graph 4: Disruption of all imports to EU via Ukraine, Scenario 2-week / 20 years – Simulated from 15 to 28 February**

**2-week / 20 years: Simulated from 15 to 28 February**



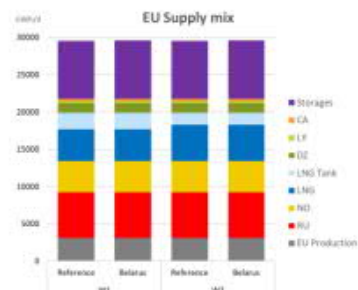
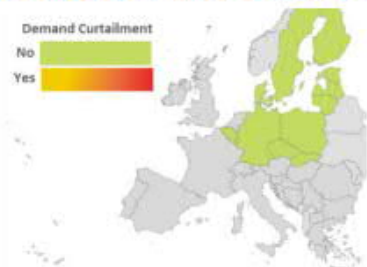
Source: ENTSOG Union-wide simulation of gas supply and infrastructure disruption scenarios 2021

**Risk group Belarus**

In the Belarus common risk assessment in scenario Disruption of all supply routes through Belarus for (simulation of 2-week/20 years, simulation from 15 – 28 Feb) results in increased gas transit through Nord Stream I and Ukraine. In this case the overall flows of Russian gas stay on a similar level, reaching the maximum supply potential. Transits through Belarus are re-directed through other Russian supply routes. There are no risks under analysed scenario for Poland or the Czech Republic.

**Graph 5:** Disruption of all imports to EU via Belarus, Scenario 2-week / 20 years – Simulated from 15 to 28 February

**2-week / 20 years: Simulated from 15 to 28 February**



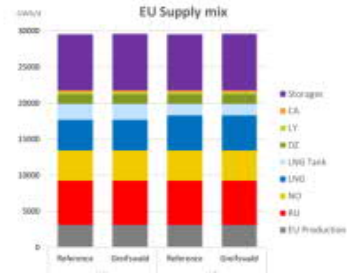
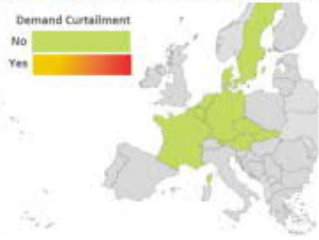
Source: ENTSOG Union-wide simulation of gas supply and infrastructure disruption scenarios 2021

**Risk group Baltic Sea**

The Baltic Sea risk assessment in scenario Disruption of the onshore receiving facility of Nord Stream I (simulation of 2-week/20 years, simulation from 15 – 28 Feb) concludes that there are no risks for the Czech Republic in case of a disruption. The overall flows of Russian gas stay on a similar level, reaching the maximum supply potential.

**Graph 6:** Disruption of the onshore receiving facility of Nord Stream, Scenario 2-week / 20 years – Simulated from 15 to 28 February

2-week / 20 years: Simulated from 15 to 28 February



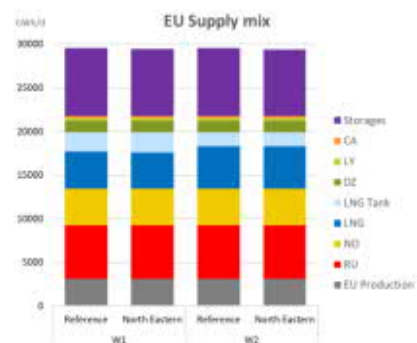
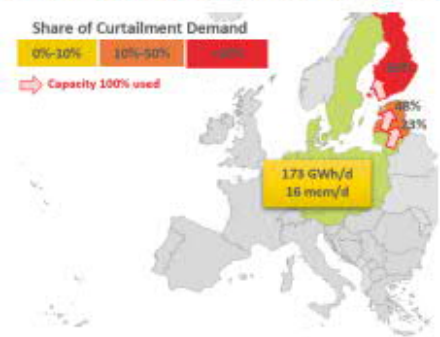
Source: ENTSOG Union-wide simulation of gas supply and infrastructure disruption scenarios 2021

**Risk group Eastern gas supply – North-Eastern**

In 2021 modelling there is a new group in Eastern gas supply Corridor - North-Eastern. One more scenario is therefore presented for this new group. The Eastern gas supply – North-Eastern risk assessment in scenario Disruption of all imports to the Baltic states and Finland (simulation of 2-week/20 years, simulation from 15 – 28 Feb). It is obvious that there are no risks under this analysed scenario for Poland or the Czech Republic.

**Graph 7:** Disruption of all imports to the Baltic states and Finland, Scenario 2-week / 20 years – Simulated from 15 to 28 February

2-week / 20 years: Simulated from 15 to 28 February



Source: ENTSOG Union-wide simulation of gas supply and infrastructure disruption scenarios 2021

**III. Conclusion**

The Czech gas transmission system is considered as robust and reliable, to which gas can be supplied from several independent sources. The sum of the technical capacity of all border entry points capable of supplying gas to the Czech transmission system is in the amount of 4 307 GWh/d without reverse-flow at IP Cieszyn. If the reverse-flow at IP Cieszyn would be realised, the total daily entry capacity would increase to the amount of 4 337 GWh/d.

Ensuring a firm reverse-flow capacity from Poland towards the Czech Republic will not materially increase a security of supply standard as N-1 criterion already now amounts to more than 400% and therefore the



implementation of reverse flow in the direction from Polish system via the IP Cieszyn would entail substantial and disproportionate costs compared to the negligible benefits obtained.

From the above-mentioned regional risk assessment, it is visible that interconnected countries do not have a security of supply issue in all the above-mentioned scenarios. The investment focused on enabling a reverse-flow at IP Cieszyn thus does not bring any additional benefits to increase the security of supply in the region. In this context, construction of a new infrastructure for more than EUR 234 million would be recognized as stranded costs and will not bring cost-effective results as regards the security of gas supply as per point 31 of the Preamble of the SoS Regulation.

The Czech gas transmission operator NET4GAS and the Polish gas transmission operator GAZ SYSTEM ask for an exemption from the obligation to enable permanent physical bi-directional capacity at the IP Cieszyn for the above-mentioned reasons. In this respect, it shall be also taken into account, that in October 2019, the European Commission adopted the fourth list of Projects of Common Interest (PCI) for a connected European energy grid, fit for the future providing clean, affordable and secure energy for Europeans. The list reflected the importance of infrastructure for the Energy Union and represented a balance among main objectives: sustainability, affordability and security of supply. The European Commission decided not to put the project of the Czech-Polish bi-directional interconnection on the fourth PCI list.

#### IV. Consultation with potentially concerned TSOs

Consultation based on Annex III (2) of the SoS Regulation with other relevant transmission system operators took place from to.... Results ... *(This part will be completed after consultation).*