Baltic Pipe Project
Offshore gas pipeline – implementation stage

Co-financed by the Connecting Europe Facility of the European Union
GAZ-SYSTEM actively participates in implementing the objectives of the “Polish energy policy until 2030.” Access to new, independent sources and development of the network of connections with transmission systems of the neighbouring countries will guarantee security of gas supplies to Poland.

The Baltic Pipe Project is a strategic infrastructure project aimed at creating a new corridor of natural gas supply from Norway to the Danish and Polish markets and to the end-users in the neighbouring Eastern European countries. Baltic Pipe will enable bidirectional transmission, which means it will also be possible to supply gas from Poland to Denmark.

The Baltic Pipe Project consists in constructing offshore pipelines in the North Sea and Baltic Sea basins and developing necessary onshore infrastructure in Denmark and Poland.

### ABOUT THE BALTIC PIPE PROJECT

#### STRATEGIC INFRASTRUCTURE PROJECT

The Baltic Pipe offshore pipeline will enable transmission of 10 billion m³ of natural gas per year to Poland and 3 billion m³ of natural gas from Poland to Denmark. Its construction will start in 2020. The first gas is scheduled to flow in autumn 2022.

#### PROJECT PARTNERS: GAZ-SYSTEM AND ENERGINET

The investment is executed by the Polish transmission system operator, GAZ-SYSTEM, and the Danish gas and energy transmission system operator, Energinet. Positive investment decisions regarding execution of the Baltic Pipe project were made by the transmission system operators of Poland and Denmark in November 2018.

#### PROJECT OF COMMON INTEREST

The Baltic Pipe investment has been recognised by the European Commission as a “Project of Common Interest” (PCI) and has held this status since 2013. It is a status granted to infrastructure projects aimed at strengthening the European internal energy market by reaching the European Union’s energy policy objectives of providing affordable, secure, and sustainable energy.

#### FINANCIAL SUPPORT FOR THE PROJECT FROM EU FUNDS

The Baltic Pipe project received financial support from the European Union under the instrument “Connecting Europe” (CEF). In total, the maximum amount of funding awarded to date is EUR 266.8 million. This amount is to cover executing engineering works, obtaining all necessary administrative permits, implementing construction and installation works and other expenses.

### INVESTMENT SCHEDULE

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INVESTMENT DESCRIPTION

The Baltic Pipe Project consists of 5 main components: Energinet is in charge of executing the gas pipeline construction on the North Seabed, extending Danish gas transmission system and constructing a gas compressor station in the territory of Denmark, the latter with the support of GAZ-SYSTEM. The Polish company, in turn, is responsible for constructing the offshore gas pipeline between Denmark and Poland and for expanding gas transmission system in Poland.

THE NORTH SEA OFFSHORE GAS PIPELINE
Constructing an approximately 105-km long offshore gas pipeline linking the Norwegian gas transmission system in the North Sea with the Danish onshore transmission system.

The gas pipeline will be connected to the existing transmission infrastructure, Europipe 2 pipeline, in the North Sea, thereby ensuring access to natural gas from the Norwegian fields.

EXPANSION OF DANISH TRANSMISSION SYSTEM
Constructing a receiving terminal in Nybro and installing approximately 220 km of gas transmission pipelines in the territory of Denmark.

EXPANSION OF POLISH TRANSMISSION SYSTEM
Extending the Polish transmission infrastructure by approximately 231 km. A new gas compressor station will be constructed, and the two existing ones will be extended.

BALTIC PIPE PROJECT COMPONENTS

GAS COMPRESSOR STATION IN DENMARK
Construction of a new gas compressor station in the south-eastern part of Zealand, which will enable bidirectional transmission of gas between Denmark and Poland.

THE BALTIC SEA OFFSHORE GAS PIPELINE
Constructing an approximately 275-km long offshore gas pipeline connecting Denmark and Poland. The gas pipeline will go through the Danish, Polish and Swedish marine areas.

SAFETY DURING CONSTRUCTION

In order to ensure environmental protection as well as safety and reliability of natural gas transmission, modern and proven technologies, the best quality materials, and the latest security systems are used during implementation of the investment. Detailed seabed survey and risk analysis performed for the construction and operation stages have confirmed that the offshore gas pipeline will meet all the necessary safety requirements.

KEY FIGURES

1 bidirectional connection
Norway–Denmark–Poland

2 project promoters
GAZ-SYSTEM and Energinet

EUR 266.8 million
EU support

900 km
estimated total length of gas pipelines

10 bcm
capacity of the offshore gas pipeline

4.
number of compressor stations

2 years
duration of construction works

2022 r.
start of gas transmission

Schematic map. Source: GAZ-SYSTEM S.A.
The Baltic Pipe project is being executed with respect for local communities’ rights and with care for the environment. In the case of such large infrastructure projects, implementation of an investment depends on a thorough analysis of environmental conditions and their possible impact on the environment.

**THE BALTIC SEA OFFSHORE GAS PIPELINE**

The offshore gas pipeline laid on the Baltic Seabed is the key component of the Baltic Pipe project. It will connect Denmark with Poland and ensure bidirectional gas transmission. GAZ-SYSTEM has already obtained all required administrative decisions and now holds complete set of construction permits for the Baltic Pipe project in Denmark, Poland, and Sweden.

**OBTAINING COMPLETE SET OF ADMINISTRATIVE DECISIONS REQUIRED BY LAW**

The offshore part to be installed on the Baltic seabed will pass through the marine areas of three countries: Denmark, Poland, and Sweden. In Poland, construction permit for the offshore part of Baltic Pipe gas pipeline was issued by the Governor of West Pomerania on 22 April this year. In Denmark, permit for GAZ-SYSTEM, covering two offshore sections (one from the coast to the boundary of Sweden’s marine area and the other from that area, through Danish waters near Bornholm island, to the boundary of Poland’s marine area), was issued by the Minister for Climate, Energy and Utilities on 25 October 2019. In turn, in Sweden, construction permit for Baltic Pipe gas pipeline in the Swedish Exclusive Economic Zone in the Baltic Sea was issued by the Ministry of Enterprise and Innovation on 7 May 2020.

**SOCIAL AND NATURAL ENVIRONMENT**

The Baltic Pipe project is being executed with respect for local communities’ rights and with care for the environment. In the case of such large infrastructure projects, implementation of an investment depends on a thorough analysis of environmental conditions and their possible impact on the environment.

**ENVIRONMENTAL IMPACT ASSESSMENT**

For the purpose of the environmental decision, the Environmental Impact Assessment report had been prepared to account for the results of months-long detailed environmental, geophysical, and geotechnical surveys. Due to the international character of the project, a cross-border Environmental Impact Assessment, showing to what extent activities performed in each country can affect neighbouring countries, has been prepared. The project thus underwent both domestic and international consultations, resulting from the Espoo convention, which were finalised in October 2019.

**TECHNOLOGICAL SOLUTIONS**

To protect the natural environment, GAZ-SYSTEM has committed to apply in Poland and Denmark a number of solutions mitigating possible impact of the gas pipeline on the surroundings. It has been decided that at the shoreline section (both on the Polish and Danish sides) the pipeline will be installed in a tunnel under the beach and cliff. This way, tunnel boring, pipeline installation and subsequent operation will not cause any damage to the valuable natural areas. Thanks to the microtunnel, the dunes and cliffs will be protected, and the beach will remain untouched. The gas pipeline will not be visible on the beach, either.
On 30 April 2020, GAZ-SYSTEM signed contract with Saipem Limited for performing construction and installation works related to laying the gas pipeline in the Baltic Sea and preparing the gas pipeline landfalls on both Polish and Danish sides.

SAFETY ZONES

During the construction, temporary safety zones will be established around the pipelay vessels and other support vessels, which will ensure the safety of navigation for other users of the sea. The radius of the safety zones will be approx. 1–1.5 km around the main vessel laying the offshore gas pipeline as well as around the vessels conducting research and seabed intervention works.

The extent of safety zones will be agreed with the relevant maritime authorities. Ship operators and other users of the Baltic Sea will be notified of the need to bypass the demarcated zones during construction and installation works.

The gas pipeline will be periodically inspected during construction. Any defects found in the seabed under the gas pipeline will be replenished.

The gas pipeline landfall will be constructed by drilling under the seabed, beach, and dunes. Such a method is called microtunnelling, and it means that the gas pipeline will run in an underground concrete tunnel. By using this method, the area of seashore and sand dunes will not be affected, and the investment execution will not cause major restrictions to the use of the beach.

The boring equipment will pass under the dunes, beach, and seabed, leaving behind an enclosed concrete tunnel. After finishing work, the boring machine will be pulled out with a barge and crane, and the pipeline will be laid in (pulled through) an underground concrete tunnel.

Potential impacts will be associated primarily with the construction stage, will be temporary and local.

OFFSHORE GAS PIPELINE PARAMETERS

The pipeline will consist of 12.2-metre long pipe sections connected (welded) with each other which will be laid on the seabed or buried. The offshore part will end and pass into the onshore part several hundred meters behind the beach, cliff, and dunes area. The connection between the offshore and onshore sections of the gas pipeline is called the “first dry weld” and constitutes the border point between these two parts.

The gas pipeline has been designed in accordance with international industry norms and standards. Protective concrete layer will ensure the highest safety of the installation.

Pace of laying the gas pipeline may reach up to 3–4 km per day, and the safety zones will move together with vessels performing the works.

MICROTUNNEL CONSTRUCTION FROM LAND

CONSTRUCTION OF THE OFFSHORE PIPELINE

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EXPANSION OF POLISH TRANSMISSION SYSTEM

The Baltic Pipe Project is also connected with expansion and modernisation of the Polish natural gas transmission system. Approximately 230 km of transmission infrastructure will be constructed, two existing gas compressor stations will be expanded, and one new compressor station will be built.

PROJECTS UNDER IMPLEMENTATION IN POLAND

1. NIECHORZE-PŁOTY GAS PIPELINE WITH THE RECEIVING TERMINAL IN KONARZEWO

The gas pipeline will run from the line valve station in the vicinity of Niechorze and Pogorzela up to the gas transmission hub in Płoty. It will connect the offshore pipeline with the national transmission system.

- LOCATION: West Pomeranian Province, municipalities: Rewal, Karnice, Trzebiatów, Gryfice and Płoty
- NOMINAL PIPELINE DIAMETER: DN 900 and DN 1000
- GAS PIPELINE LENGTH: approx. 40 km

2. GOLENIÓW-LWÓWEK GAS PIPELINE

The gas pipeline will be constructed along the existing transmission network.

- LOCATION: West Pomeranian Province, Lubusz and Greater Poland provinces, Goleniów, Maszewo, Stargard, Dolice, Przelewice, Pełczyce, Strzelce Krajeńskie, Zwierzyn, Santok, Deszczno, Skwierzyna, Przytoczna, Pszczew, Międzychód, and Lwówek communes
- NOMINAL PIPELINE DIAMETER: DN 1000
- GAS PIPELINE LENGTH: approx. 191 km

3. EXPANSION OF GOLENIÓW GAS COMPRESSOR STATION

The existing gas compressor station will be expanded with new elements to cooperate with the existing transmission infrastructure.

- LOCATION: West Pomeranian province, Goleniów commune
- POWER: expansion by approx. 25 MW (1 unit of approx. 5 MW capacity and 2 units of approx. 10 MW capacity)

4. GUSTORZYN COMPRESSOR STATION

A new compressor station will be constructed, and the existing installation forming part of Gustorzyn gas hub will be extended.

- LOCATION: Kuyavian-Pomeranian province, Brest Kujawski commune
- POWER: approx. 20 MW (2 units of approx. 5 MW capacity and 1 unit of approx. 10 MW capacity)

5. EXPANSION OF ODOLANÓW GAS COMPRESSOR STATION

The facility will be expanded and connected to the existing transmission infrastructure.

- LOCATION: Greater Poland province, Odolanów commune
- POWER: expansion by approx. 30 MW (2 units of approx. 5 MW capacity, 2 units of approx. 10 MW capacity)

GAZ-SYSTEM holds complete set of administrative decisions for transmission system extension in the country – it has all environmental and location decisions as well as construction permits.

GAS PIPELINE CONSTRUCTION PROCESS ACCORDING TO THE SPECIAL PURPOSE ACT ON GAS

1. DESIGNING THE GAS PIPELINE ROUTE in line with safety, formal and legal, environmental and technical requirements.

2. ADMINISTRATIVE DECISIONS, OPINIONS, AGREEMENTS, obtained from the appropriate administrative authorities, for instance, the Governor issues a decision regarding the terminal, determining location for the investment – the so-called Location Decision.

3. CONSTRUCTION PERMIT AND CONSTRUCTION by the contractor selected by GAZ-SYSTEM, which carries out construction works on the property covered by the location decision.

4. COMPENSATIONS, guaranteed to be paid to the owners of property along the gas pipeline route, due to the investment being implemented according to the special purpose act on gas.

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The legal basis for the project is the Act of 24 April 2009 on investments related to the liquefied natural gas regasification terminal in Świnoujście (Journal of Laws of 2009, No 84, item 700, as amended).

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BALTIC PIPE PROJECT BENEFITS

ENERGY SECURITY
- Diversification of sources and directions of supply
- Reducing the risk of supply disruptions

GAS MARKET DEVELOPMENT
- Increasing competitiveness between suppliers
- New trade opportunities

GREATER GAS AVAILABILITY
- Lower transmission tariffs
- Price benefits for end users

ENVIRONMENTAL PROTECTION
- Reduction of CO₂ emissions
- Support for integration of renewable energy sources

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Comments and questions regarding the Baltic Pipe project may be sent using the contact form at: www.baltic-pipe.pl and/or by contacting:

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EXPANSION OF THE POLISH TRANSMISSION SYSTEM, INCLUDING:
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