

# Interconnection of the National Gas Transmission System with the international gas transmission pipeline T1 and reverse flow Isaccea

A NATIONAL DEVELOPMENT PROJECT



# NON-TECHNICAL SUMMARY

for the Project

**„Interconnection of the national transmission system  
with the international gas transmission pipelines and  
reverse flow at Isaccea (RO)”**

***(Reference number in EU PCI List: 6.15)***



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## 1. A PROJECT OF COMMON INTEREST

Regulation (EU) no. 347/2013 of the European Parliament and Council of April 17<sup>th</sup> 2013 on the guidelines for trans-European energy infrastructure and repealing Decision no. 1364/2006/CE and amending Regulations (EC) No.713/2009, (EC) No. 714/2009 and (EC) No. 715/2009” (hereinafter referred to as the Regulation (EU) no. 347/2013) intends to facilitate and implement energy projects of strategic importance. The Regulation introduces, among others, a new status for projects, namely the Project of Common Interest (PCI) status, a status granted to projects that have a significant contribution to energy market integration, sustainability, security of supply, and that are necessary for energy infrastructure corridors with cross-border impact.

The Project is on the second List of Projects of Common Interest adopted by the European Commission in November 2015 at the position:

- ✓ **6.15 “Interconnection of the National Transmission System with the international pipelines and reverse flow at Isaccea (RO)”**

At the same time it is included in the third List of Projects of Common Interest adopted by the European Commission in November 2017 at the position:

- ✓ **6.24.10 position 1 „Extension of the Romanian National Transmission System between Onești and Isaccea and reverse-flow at Isaccea”**

The third European Union List of Projects of Common Interest is to be approved by the European Parliament.

Additional information on projects of common interest are available on the official webpage of the European Commission:

<https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest>

and the interactive map of the projects from the second list may be found at:

[http://ec.europa.eu/energy/infrastructure/transparency\\_platform/map-viewer/](http://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/)

According to the Regulation (EU) no. 347/2013 the projects of common interest are subject to a specific authorization procedure and they may benefit of grants by Connecting Europe Facility.





## 2. WHO ARE WE?

The National Gas Transmission Company “TRANSGAZ” S.A. (TRANSGAZ) is the sole operator of the Romanian national gas transmission system. In Romania the gas transmission system is owned by the Romanian state, and TRANSGAZ is the system operator based on a long term concession agreement.

The main object of activity of the company is „Transmission through pipelines”, but complementary to this the company may perform other activities as well, according to the applicable legislation and with the company’s bylaws. The main purpose of the company is to attain the objectives of the national strategy set for gas transmission, gas transit, gas dispatching, gas transmission research and engineering, under efficient, transparent, secure, non-discriminatory access and competitive conditions, while observing the European and national legislation and standards on quality, performance, environment and sustainable development.

TRANSGAZ is a joint-stock company according to the Romanian legislation, and the main shareholder is the Romanian state. The company was admitted to trading on the regulated market managed by the Bucharest Stock Exchange in 2007.



### 3. WHAT IS THE INTERCONNECTION OF THE NATIONAL TRANSMISSION SYSTEM WITH THE INTERNATIONAL PIPELINE T1 AND REVERSE FLOW AT ISACCEA PROJECT?

<b>Project name</b>	6.15 Interconnection of the national transmission system with the international gas transmission pipelines and reverse flow at Isaccea (RO)
<b>Priority corridor</b>	North-South Gas Interconnections route in Central Eastern and South-Eastern Europe („NSI East Gas”),
<b>Country</b>	Romania
<b>Project promoter</b>	S.N.T.G.N. TRANSGAZ S.A.
<b>Project location</b>	Within the range of Tulcea, Galați, Brăila, Vrancea and Bacău counties

#### Project Description

By the implementation of the project „Interconnection of the national transmission system with the international gas transmission pipelines and reverse flow at Isaccea (RO)” (hereinafter referred to as the Project) a transmission route is created between the markets in Greece, Bulgaria, Romania and Ukraine provided that the new interconnection between Greece and Bulgaria is achieved as well. At the same time reverse physical flows may be ensured in the Negru Voda 1 point, according to the requirements of Regulation (EU) no 994/2010 of the European Parliament and of the Council dated 20 October 2010 on the measures to safeguard security of gas supply and repelling Council Directive 2004/67/EC.

The project becomes necessary also in the context of taking over in the Romanian gas transmission system the recently discovered Black Sea gas in order for them to be capitalized on the Romanian and regional markets.

In the event that gas supply by the Russian Federation is, for various reasons, stopped in Isaccea point, gas supply to Bulgaria and Romania will be affected.

By implementing the Project, gas supply to Bulgaria may be ensured from the NTS on the NTS - Onesti - Șendreni - Isaccea - Transit 1 - Negru Voda route. At the same time, in case of taking over gas from the Black Sea continental shelf in the Transit 1 pipeline, gas supply to Bulgaria, the supply to the deficient areas of the NTS, and a quantity of gas to be directed to Podișor - Mosu, or a quantity of natural gas to be exported to the Republic of Moldova may be ensured at the same time.

The project will be implemented in two phases, as follows:

**Phase 1** – energy infrastructure categories “transmission pipelines for the transport of natural gas and bio gas that form part of a network which mainly contains high-pressure pipelines, excluding high-pressure pipelines used for upstream or local distribution of natural gas”, including the following investment objectives:

- ✓ *Interconnection Isaccea* – interconnection of the National Gas Transmission system with the T1 Pipeline in the Isaccea Gas Metering Station, located in the territorial administrative unit Isaccea, the county of Tulcea;

- ✓ *Repair works related to the Dn 800 mm Onești – Cosmești pipeline, following the PIG intelligent inspection, providing for punctual repair works in the existing pipeline on the territory of the counties of Bacău, Vrancea, Galați.*

**Phase 2** – energy infrastructure categories “any equipment or installation essential for the system to operate safely, securely and efficiently or to enable bi- directional capacity, including compressor stations”, including the following investment objectives:

- ✓ *Upgrading the Siliștea Gas Compressor Station, including the Technological Node (TN) Siliștea, located in the territorial administrative unit Siliștea, the county of Brăila;*
- ✓ *Works in the Technological Node Șendreni located in the territorial administrative unit Vădeni, the county of Brăila;*
- ✓ *Upgrading the Onești Gas Compressor Station, including the Technological Node (TN) Onești, located in the territorial administrative unit Onești, the county of Bacău.*

The achievement of the Project enables the capitalization of the potential of the Transit 1 and Onești - Șendreni - Isaccea - Tranzit 1 pipelines to circulate the Black Sea gas, if gas import from the Russian Federation is stopped and the gas from the NTS to new consumer destinations or to old consumer destinations if they have no more established feasible sources.

## Scenarios under analysis

Within the Feasibility Study 3 **gas transmission scenarios** were analysed, namely:

**Scenarios 1 and 2** propose the export of natural gas from Romania to Bulgaria, from the National Transmission System on the Onești - Șendreni - Isaccea - Negru Vodă corridor, using the Onești and Șendreni gas compressor stations in Scenario 1 and the Onești and Siliștea gas compressor stations in Scenario 2.

**Scenario 3** proposes to take over the gas from the Black Sea continental shelf in the National Transmission System, by circulating gas to the Central Corridor along the Transit 1 - Isaccea - Șendreni - Onești pipeline route and ensuring the export capacity to Bulgaria on the Transit 1 pipeline.

The endorsed version of the Feasibility Study (Scenario 2) includes the execution of the Isaccea Interconnection so as to ensure reverse flow between the National Transmission System and the Transit 1 gas pipeline, the upgrading of the existing gas compressor stations GCS Onești and GCS Siliștea, as well as the works in the technological nodes Onești, Șendreni and Siliștea.

In view of the streamlining and selection of the final route the following aspects were taken into account:

- minimum impact on agricultural lands;
- avoidance of landslide areas;
- necessity of minimum land improvement as compared to other possible alternatives;
- technical, economical and construction related considerations, and the possibilities to monitor the stations and the pipeline during operation;
- minimum impact on the environment (and on all environmental aspects);

- assurance of conditions for mechanical digging and construction-mounting works;
- safety of operation;
- observance of safety distances to nearby objectives;
- minimum social impact.

## Pipeline Route

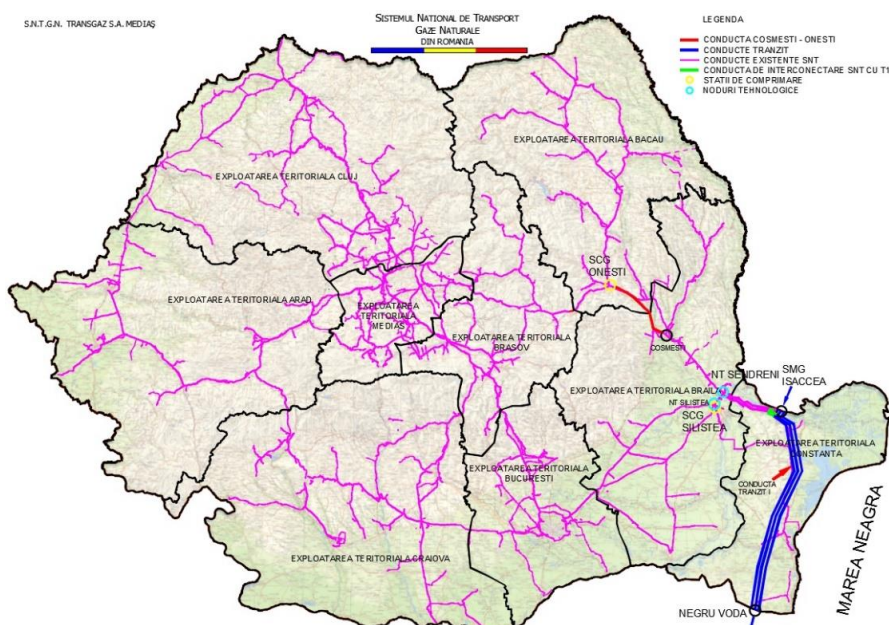
Several options have been considered and taken into account in establishing the Project's implementation solution. The final decision took into account the option that ensures an optimal balance between the benefits that will be gained from the economic and social point of view, the national energy security, the service of the national consumption needs and the minimal impact on the environment and the communities.

The designed or upgraded objectives are located in the South Eastern area of the country on the territory of the counties Tulcea, Galați, Brăila, Vrancea and Bacău.

The project aims at the realization of Isaccea interconnection, the upgrading of two gas compressor stations, works in three technological nodes and repair works to some sections of the Dn 800 Onești - Cosmești pipeline.

The route of the gas transmission pipeline Onești – Cosmești follows the general direction from SE to NW, the repaired sections of the pipelines are located on the territory of the counties Galați, Vrancea and Bacău.

Along the route, in the 3 counties, the pipeline Dn 800 Onești - Cosmești crosses/intersects the following obstacles: access ways (national roads, county roads, country roads, railways), water bodies that are registered in the land register or not, valleys and channels, oil, gas and water pipelines, telecom networks (fibre optic) and forest areas, part of such crossing/intersection points are intervention areas for the repair works related to the pipeline.



**Figure 1 – Presentation of the objectives related to the Project „Interconnection of the national transmission system with the international gas transmission pipelines and reverse flow at Isaccea (RO)”**



#### 4. WHY THE INTERCONNECTION OF THE NATIONAL TRANSMISSION SYSTEM WITH THE INTERNATIONAL PIPELINES AND REVERSE FLOW AT ISACCEA PROJECT?

The gas infrastructures in the region currently lack the appropriate interconnectivity and flexibility, which causes a significant negative impact on the gas markets in Bulgaria, Romania, Hungary and Austria, further on bringing higher gas prices and vulnerability in the security of supply. Moreover, some of these countries still depend, at a high extent, by the gas supplied by the Russian Federation.

##### What does the Project bring forth?

- **Market integration** as a result of the decrease in the congestion of the energy infrastructure and the increase in interoperability and flexibility of the system;
- **Security of supply** and **competition** by ensuring the proper interconnections, by the diversification of supply sources, transmission routes and stakeholders thus reducing the market concentration;
- **Sustainability** by reducing emissions due to the replacement of pollutant fuels with natural gas issuing less carbon dioxide per delivered energy unit.

Moreover, project implementation assures:

- ✓ creating an alternative for Bulgaria's supply, different from the one implying the gas supplied from the Russian Federation, namely the supply from the National Transmission System;
- ✓ ensuring bi-directional gas flows on the Onești - Șendreni - Isaccea - Negru Vodă route and ensuring the delivery parameters requested by Bulgaria in the Negru Voda point;
- ✓ the ability to take over in the NTS the gas from the Black Sea continental shelf by means of the Transit 1 pipeline, ensuring the diversification of gas supply sources;
- ✓ improving gas supply in various areas of the NTS especially during the winter season when, because of the low temperatures, consumption increases (the consumed flows) and the pressure in the system decreases;
- ✓ NTS operation flexibility from the point of view of the possibilities related to gas supply:
  - by supplying Bulgaria, with gas from the domestic production in the centre of the country, or
  - by supplying the Central or Eastern area of the country with import gas from the Isaccea direction or, in the future, with the gas taken over from the Black Sea continental shelf;
- ✓ increasing the safety of the operation of the existing pipelines and facilities;
- ✓ decrease the dependency on gas imports from a single source, by covering the constant and predictable increase tendencies of the consumption in the European countries against the background of a constant medium and long term decrease of the gas deliveries from the area of the Russian Federation.

Through its objectives the Project complies with the guidelines on trans-European energy infrastructures as formulated by the European Parliament, European Council and European Commission.

In the area of the territorial administrative units Cobadin and Grădina located on the route of the Dn 1000 Transit 1 pipeline interconnections of the Transit 1 pipeline will be achieved by means of which gas will be taken over from the Black Sea continental shelf in the NTS.

### **National and local benefits**

Implementation of the Project will lead to a higher degree of energy security in Romania by assurance of access to diversified sources and routes of gas supply. This new infrastructure will also open way for new opportunities favoring the suppliers of energy equipment and services in Romania and the rest of Europe, and will assure new jobs that are necessary for the execution and exploitation works in Romania.

To this end, from national and local perspective, the following potential benefits have been identified as a result of Project implementation:

- Security of gas supply to Romania by access to new gas sources;
- Incentives to competition on the internal gas market, diversification of market structure and determination, under competitive conditions, of import gas prices;
- Development of the national gas transmission system;
- Major investments in Romania;
- A positive social-economic impact, by:
  - New jobs both during construction and during operation;
  - Increased commodity demand with a positive effect on economy as a result of the new jobs;
  - Additional income to the state budget and to the local budget;
  - A positive impact on local tourism operators (accommodation) and therefore an increased tax contribution as income to the local administration (during Project implementation) by contracting accommodation services in the works area for the teams responsible with Project implementation and Project execution;
  - Incentives for other investments and ancillary undertakings (manufacturers/suppliers of raw materials, materials, devices/equipment and services necessary for Project implementation);
  - Incentives for development of local economy due to a higher value of land in the vicinity of the new pipeline;
  - A higher living standard and a better life due to the increased number of households/economic agents to connect to the gas network.

## **5. RESPECT FOR ENVIRONMENT AND FOR PEOPLE**

TRANSGAZ believes that the use of business practices that pay a tribute to society and to the employees is vital for the success of the Project. As such, the company adheres to a series of key principles:

- observance of strict standards on pipeline systems construction;

- mitigation to the minimum possible of the negative impact on the environment and on the inhabitants caused by construction activities;
- mitigation to the minimum possible of the short term and long term inconveniences caused to land owners and land users;
- TRANSGAZ is responsible for restoration of land and structure (drains, ditches, irrigations and roads) that are necessary during construction;
- mitigation to the minimum possible of Project footprint (including on land subject to easement or right of way, on temporary facilities, on access roads);
- mitigation to the minimum possible of emissions and noxae;
- mitigation to the minimum possible of energy and resources consumption;
- mitigation to the minimum possible of waste resulted from construction and exploitation activities;
- maximum reuse of displaced materials.



During construction



After construction

## 6. PROJECT PRELIMINARY SCHEDULE

Development and implementation stages	Period
Prefeasibility study	Complete
Feasibility study	Complete

Development and implementation stages	Period
Environmental Impact assessment	2017 – 2018
FEED and permitting documentation for the construction permit	2017 – 2018
Construction Phase 1	2018
Construction Phase 2	2018 – 2019
Technological probes and commissioning Phase 1	2018
Technological probes and commissioning Phase 2	2018 – 2019
Start of operation Phase 1	2018
Start of operation Phase 2	2019

*Note: The schedule is estimated and may be subject to changes*

## 7. PROJECT STATUS

### Permitting according to the applicable legislation

The feasibility study related to "The NTS Interconnection with the IS and reverse flow at Isaccea" and DALI for "Repair works related to the DN 800 mm Onești- Cosmești pipeline" were completed. Within such study the technical solution was selected and the following specialty studies were prepared: topographical studies, geotechnical studies and hydrological studies.

The activity related to the identification of land owners affected by the Project execution works is ongoing, and so is the procedure for the permitting of the construction works, namely the granting of the Town Planning Certificates and permits. All the Town Planning Certificates were obtain, as follow:

- Town Planning Certificate no 562/05.12.2017 issued by County Council Bacău
- Town Planning Certificate no 347/20.11.2017 issued by County Council Vrancea
- Town Planning Certificate no 209/21.11.2017 issued by County Council Galați
- Town Planning Certificate no 90/22.11.2017 issued by County Council Tulcea
- Town Planning Certificate no 277/16.11.2017 issued by County Council Brăila
- Town Planning Certificate no 276/16.11.2017 issued by County Council Brăila
- Town Planning Certificate no 264/28.11.2017 issued by Bacău Municipality.

### The authorization procedure applicable to Projects of Common Interest based on the provisions of Regulation (EU) no. 347/2013

Considering the magnitude and regional implications of the projects of common interest (PCIs), Regulation (EU) no. 347/2013 provides for a new formula and a new set of guidelines applicable to the authorization



procedures for PCIs. The scope of the new guidelines is mainly to lead the way for an effective administrative processing of application files for PCIs, by concentrating the activities with one dedicated entity, namely: "The National Competent Authority responsible to facilitate and coordinate the permitting procedures for PCIs and to facilitate the application of Regulation 347/2013". In Romania this role falls with the Ministry of Energy.

TRANSGAZ will submit to the Competent Authority for PCIs (A.C.P.I.C) the ***Notification for the initiation of the procedure prior to the submission of the candidature for the „Interconnection of the national transmission system with the international gas transmission pipelines and reverse flow at Isaccea (RO)”***.

According to the provisions of Regulation (EU) no. 347/2013 the **webpage of the project** was created on the company's website where the information leaflet is available providing, in a clear and succinct manner, information on the Project, as well as the contact details.

## 8. ADDITIONAL INFORMATION SOURCES

Information on the company:

<http://www.transgaz.ro/>

Information on the Project and on the public consultation procedure:

<http://www.transgaz.ro/ro/consultarea-publicului-interconectare-snt-t1-si-reverse-flow-isaccea>

The official webpage of the European Commission:

<https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest>

The interactive map of the European PCIs in the 2<sup>nd</sup> List:

[http://ec.europa.eu/energy/infrastructure/transparency\\_platform/map-viewer/](http://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/)

Contact data:

Address: S.N.T.G.N. TRANSGAZ SA. No. 1 C.I.Motaş Square, Medias, county of Sibiu

Phone: Operators - 0269 - 80.33.33

Fax: +4 0269 - 83.90.29

Email: [cabinet@transgaz.ro](mailto:cabinet@transgaz.ro)

PR Department:

Cora Stăvărescu

Head of Institutional Communication Department

E-mail: [cora.stavarescu@transgaz.ro](mailto:cora.stavarescu@transgaz.ro)

Cornel Mihai

Head of the Administrative and Corporate Relations Department

E-mail: [cornel.mihai@transgaz.ro](mailto:cornel.mihai@transgaz.ro)

Mircea Chelaru

Public Relations Specialist

E-mail: [adrian.chelaru@transgaz.ro](mailto:adrian.chelaru@transgaz.ro)

Phone: +40 0269 801581