



BRHA A NATIONAL DEVELOPMENT PROJECT







NON-TECHNICAL SUMMARY

for the Project

Development on the Romanian territory of the National Gas Transmission System on the Bulgaria - Romania - Hungary - Austria Corridor - transmission pipeline Podișor - Horia GMS and 3 new compressor stations (Jupa, Bibești and Podișor) (1st phase)

(Reference number in EU List: 6.24.2.)



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1. A PROJECT OF COMMON INTEREST

Regulation (EU) no. 347/2013 of the European Parliament and Council of April 17th 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 (PIC) status, a status granted to projects that have a significant contribution to energy market integration, sustainability, safety of supply, and that are necessary for energy infrastructure corridors with cross-border impact.

BRHA Project is on the updated PCI list adopted by the European Commission in November 2015:

- √ 6.24.2 Development on the Romanian territory of the National Gas Transmission System on the Bulgaria - Romania - Hungary - Austria Corridor - transmission pipeline Podişor - Horia GMS and 3 new compressor stations (Jupa, Bibeşti and Podişor) (1st phase);
- √ 6.24.7 Expansion of the transmission capacity in Romania towards Hungary up to 4.4 bcm/year (2nd phase).

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 these projects may be found at:

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 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 listed on the Bucharest Stock Exchange in 2007.





3. WHAT IS BRHA PHASE 1?

Project name	6.24.2 Development on the Romanian territory of the National Gas Transmission System on the Bulgaria - Romania - Hungary - Austria Corridor - transmission pipeline Podișor - Horia GMS and 3 new compressor stations (Jupa, Bibești and Podișor) (1st phase)
Priority corridor	Gas Interconnections in Central-Eastern and South-Eastern Europe ("NSI East Gas"),
Country	Romania
Project promoter	S.N.T.G.N. TRANSGAZ S.A.
Project location	Podişor – Corbu – Hurezani – Haţeg - Recaş

PROJECT Description

Considering the European Union's increasing dependence on gas imports, based on the constant increase of the gas demand and the decrease of the domestic production, the security of gas supplies represents a necessity.

Taking into account the perspective of new projects aimed to diversify gas transmission routes from the Caspian region to Central Europe, as well as the new off-shore gas sources in the Black Sea, Transgaz aims to construct a new gas transmission route to assure the capitalization of the gas volumes from such offshore sources on the Romanian and European markets, and the possibility of permanent reverse flow at the Bulgarian and Hungarian Connectors.

BRHA Phase 1 means the construction of new gas transmission pipeline sections to facilitate the connection of the existent pipelines, from Podişor to Recaş, on the route Podişor-Corbu-Hurezani-Haţeg-Recaş, and consists of:

- Construction of Podișor Recaș gas transmission pipeline of approximate length 479 km, with a diameter of 32" (Dn 800), and a design pressure of maximum 63 bar;
- Podişor Gas Compressor Station (GCS), Bibeşti Gas Compressor Station (GCS) and Jupa Gas Compressor Station (GCS), each with two compression aggregates (one active and a backup), with the possibility of reverse flow.

Scenarios under analysis

Due to technical, economic and environmental reasons the initial route of BRHA pipeline was aimed to follow in parallel Transgaz' incumbent lines for the entire route. Following the route surveys for the optimization and selection of the final route, several sections and alternate routes to the incumbent lines have been assessed based on the following considerations:

- minimum impact on agricultural lands;



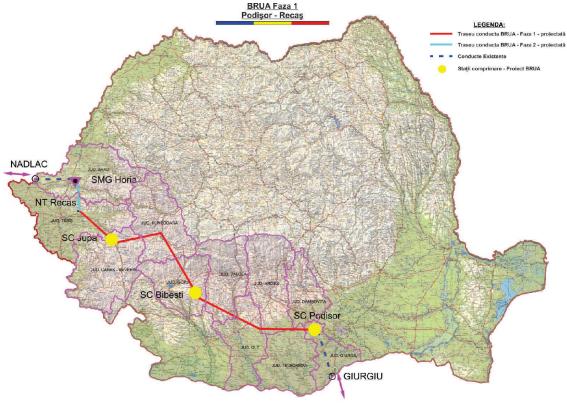


- avoidance of landslide areas;
- necessity of minimum land improvement as compared to other possible alternatives;
- technical, economical and construction related considerations, and the possibilities to monitor the pipeline during operation;
- minimum impact on the environment (and on all environmental aspects);
- assurance of conditions for mechanical digging and construction-mounting works;
- safety of operation;
- observance of safety distances to nearby objectives;
- minimum social impact.

After application of the above stated criteria pipeline route had to be changed from the initial route on several sections.

Pipeline Route

When determining the route of BRHA Phase 1 several options have been considered, and the final decision weighed in favor of the option that would bring the optimum ratio between the social-economic benefits, the national security benefits, the national consumption needs and the minimum impact on the environment and the community.



BRHA Phase 1 route





The pipeline route will generally follow a parallel route to the route of the incumbent pipelines in the national gas transmission system (NTS). Due to local limitations the pipeline route was designed to part from the route of the incumbent pipelines at several locations. Due consideration was also paid to the impact mitigation of some environmental factors, namely to round the conservative areas, the environmental sensitive areas and inhabited areas.

The pipeline route mainly follows the SE-W direction and crosses the counties of Giurgiu, Teleorman, Dâmboviţa, Argeş, Olt, Vâlcea, Gorj, Hunedoara, Caraş-Severin, and Timiş.

In the 10 counties along the route the pipeline crosses the following obstacles: access ways (national roads DN, county roads DJ, country roads DC, railways CF), 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, meadows and agricultural-ecosystems.

On the pipeline route there will be installed an entire series of above ground installation ancillary to the transmission pipeline, as follws: 3 gas compressor stations: Podişor, Bibeşti and Jupaş; 38 line valves (of which 5 indoor, in the compressor stations); and 18 cathodic protection stations.







4. WHY BRHA PHASE 1?

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 BRHA Phase 1 bring forth?

- Improvement of market integration following a lower energy infrastructure congestion, a higher interoperability and system flexibility as a result of incremental capacity at interconnection points;
- Security of gas supply by diversification of transmission routes, of gas suppliers and by access to new sources with lower prices;
- A positive impact on competition due to a lower market concentration;
- Increased sustainability due to lower CO2 emissions following the replacement of polluting fuels by gas.

Moreover, project implementation assures:

- Elimination of bottlenecks in the national gas transmission system by assurance of adequate transmission capacity between Giurgiu and Csanadpalota (Hungary):
 - assurance of 1.5 bcm of gas towards Bulgaria;
 - development, in Phase 1, of 1.75 bcm gas capacity towards Hungary.
- Increased transmission capacity of existent interconnections thus contributing to an improved connectivity and a higher flexibility between the Hungarian, Romanian and Bulgarian gas transmission system;
- Diversification of gas supply sources in Romania and in the European countries through the Bulgarian gas transmission system and the Romania – Bulgaria Interconnector (gas from the Caspian region or/and other potential sources through TANAP, TAP and IGB, LNG through the LNG terminal in Greece).

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

BRHA Phase 1 allows future interconnection with the pipelines that may be sourced by LNG from the Black Sea Shore (AGRI Project) and by Black Sea gas.

National and local benefits

Implementation of BRHA Phase 1 will lead to a higher degree of energy security in Romania by assurance





of prospective access to diversified sources and routes of gas supply and by assurance of interconnection to the regional and European energy market. 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:

- Incentives to competition on the internal gas market, diversification of market structure and determination, under competitive conditions, of import gas prices;
- A stronger role as country crossed by major energy corridors towards the markets in Central and Western Europe;
- 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;
 - a positive impact on tourism operators (accommodation) and therefore an increased tax contribution as income for the local administration (during Project implementation) due to new accommodation demand in the area works are executed 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); such benefits will result in a higher tax contribution level for taxes due to the local budget;
 - incentives for development of local economy due to a higher value of land in the vicinity of the new pipeline and an 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 BRHA Phase 1. 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 impact caused by construction activities on the environment and on the inhabitants;
- 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 nuisance;
- 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
Environmental Impact assessment	2014 – 2016
FEED and permitting documentation for the construction permit	2015 – 2016
Construction of pipeline and compressor stations – PHASE 1	2017 –2019
Start of operation PHASE 1	2019
Construction of pipeline and compressor stations – PHASE 2	2019 - 2020
Start of operation PHASE 2	2020

7. PROJECT STATUS

Permitting according to the applicable legislation

The feasibility study that also includes topographical studies, geotechnical studies and hydrological studies has been completed.

The pipeline FEED, performed by S.N.T.G.N. Transgaz S.A. through their Engineering and Research Division, is close to completion. FEED comprises the final route of the pipeline and the permitting process for all 10 counties the pipeline crosses, as required by the Urbanism Certificates.

FEED for the 3 compressor stations part of BRHA is currently in progress, performed by an expert engineer.

FEED comprises the technical and economic solutions for implementation of the investment scope based on which the authorized construction works will be performed.

The environmental impact assessment is complete, and the Report on the environmental impact has been sent to the National Environment Protection Agency – the authority in charge with the elaboration and issuing of the Environmental Permit. Currently the quality analysis of the Report on the environmental impact is in progress. Part of this, between August 24, 2016 and September 1, 2016 the public hearings on the environment impact have been held in 21 places crossed by the gas transmission pipeline.

This Phase also includes the conclusion of agreements with the land owners to be affected by the Project execution works.





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 applications 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". În Romania this role falls with the Ministry of Energy.

TRANSGAZ submitted to the Competent Authority for PCIs (A.C.P.I.C) the Notification for the initiation of the procedure prior to the application for BRHA Phase 1, and such Notification was approved by A.C.P.I.C. through a Letter stating precisely the endorsement of the notification for the initiation of the procedure prior to submission of the application.

Upon A.C.P.I.C. request, TRANSGAZ has drawn up the detailed schedule for the permitting procedures and sent for approval purposes "The Concept regarding the public participation". The Concept was approved by A.C.P.I.C. in September 2016, and the following step is represented by the public consultations. Details on the public consultations for BRHA Phase 1 are available on TRANSGAZ webpage.

By the date the Concept regarding the public participation was submitted for approval, TRANSGAZ has initiated a series of activities involving in various ways public participation and consultation, as follows:

the publishing on the webpage, according to the provisions of Regulation (EU) no. 347/2013, of an
informative leaflet providing, in a clear and succinct manner, information on the Project, as well as
the contact details.

Link:

http://www.transgaz.ro/sites/default/files/brosura_transgaz_engleza.pdf

• the public hearing on the Report on Environmental impact of BRHA Phase 1, given the fact that pipeline crosses some Natura 2000 protected sites in 4 of the 10 counties the project is constructed in.

Link:

http://new.transgaz.ro/sites/default/files/anunt_dezbateri_publice_mediu_proiect_brua.pdf

conclusion of agreements with the land owners for the right of way in the areas BRHA pipeline will
cross, an action carried out by field visits of TRANSGAZ representatives that had a direct and
individual dialogue with the land owners.





8. EU SUPPORT

With the support of the Romanian government, BRHA Phase 1 is a strategic project at national and regional level, due to its contribution to the economic development of Romania through the horizontal relaunching of the gas industry.

The Romanian gas transmission network operator, TRANSGAZ, made all efforts to get the grants needed for the investment and succeeded to access a grant of **Euro 179.3 mil**, though Connecting Europe Facility, representing 40% of total eligible costs for BRHA Phase 1.

The grand signing event for the grant took place within the assembly of the Central and South-Eastern European Gas Connectivity Group (CESEC), organized in Budapest, and the signing of the Agreement by Dirk Beckers, Executive Director INEA (Innovation & Networks Executive Agency), Ion Sterian, Chairman of the Board TRANSGAZ and Petru Ion Văduva, Managing Director TRANSGAZ, took place in the presence of the Vice President of the European Commission leading the project team "Energy Union", Maroš Šefčovič, of the Commissioner for Climate Action & Energy, Miguel Arias Cañete and of the Romanian Minister of Energy, Victor Grigorescu.

The European grants confirm once again the importance of BRHA Phase 1 at European level and consolidates the energy profile of Romania. The implementation of this Project in Romania will also boost the energy infrastructure construction sector in Romania, will assure new jobs in during execution and exploitation. This Project is estimated to bring approximately 4000-5000 temporary new jobs during Project execution, and approximately 300-400 permanent jobs.

The Grant Agreement is the result of the last years' endeavors to place the energy projects promoted by Romanian companies on the top of the list of European priority strategic projects to receive grants.

TRANSGAZ has also signed with the Innovation & Networks Executive Agency (INEA), Department C – Connecting Europe Facility (CEF), a grant agreement for **Euro 1.52 mil**., representing 50 % of total eligible costs for the FEED of the three compressor stations included in the Project.

Due to this European Union support, TRANSGAZ will have the possibility to fortify by 2020 an important part of the Romanian natural gas transmission system to the benefit of the security of gas supply in Romania and in the region.







9. ADDITIONAL INFORMATION SOURCES

Information on the company:

http://www.transgaz.ro/

Information on the Project:

http://www.transgaz.ro/en/informatii-clienti/public-consultation-project-brha

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:

http://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/

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