



РЕПУБЛИКА БЪЛГАРИЯ

Комисия за енергийно
и водно регулиране



DECISION

**No. H-4
from 09.10.2018**

ENERGY AND WATER REGULATORY COMMISSION

at a closed session, held on 09.10.2018 for consideration of a request submitted by Bulgartransgaz EAD with an investment request, with Incoming No. E-15-45-39 of 09.08.2018 for a project of common interest 6.8.2. "Rehabilitation, Modernization and Expansion of the Bulgarian Transmission System" - Phase 2, the following was established:

The administrative procedure was initiated on the basis of an investment request filed with the Energy and Water Regulatory Commission (EWRC) Incoming No. E-15-45-39 of 09.08.2018 of Bulgartransgaz EAD, on the grounds of Art. 12 (3) of Regulation (EU) No. 347/2013 of the European Parliament and of the Council of 17 April 2013 laying down guidelines for trans-European energy infrastructure and repealing Decision No. 1364/2006 / EC and amending Regulations (EC) No. 713/2009, (EC) No. 714/2009 and (EC) No. 715/2009 (Regulation (EU) No. 347/2013, Regulation) in connection with the implementation of a project of common interest (PCI) 6.8.2. "Rehabilitation, Modernization and Expansion of the Bulgarian Transmission System" - Phase 2. The following are attached to the investment request: a cost-benefit analysis, prepared on the basis of the methodology under Art. 11 of Regulation (EC) No. 347/2013 and taking into account the benefits outside the Republic of Bulgaria; business plan to assess the financial viability of the project, including the selected funding option; a proposal for a cross-border cost allocation, which stipulates that the costs of implementing 6.8.2., Phase 2, be met by the Bulgarian Transmission System Operator (TSO) - Bulgartransgaz EAD, with a percentage of financing under the Connecting Europe Facility (CEF) and a copy from documentation on the consultations held. By letter with Inc. No. E-15-45-39 dated 02.10.2018 Bulgartransgaz EAD has provided additional information.

The investment request is also addressed to the Romanian National Regulatory Authority (NRA) - the Energy Regulatory Authority ANRE and the RAE Energy Regulatory Authority of Greece. A request was made on the grounds of Art. 12 (3) of Regulation (EU) No. 347/2013, a coordinated decision to be taken by the three NRAs on the allocation of project investment costs to be borne by the respective system operator and the inclusion of these costs in tariffs.

By Order No. H-E-115 of 14.08.2018, as amended by Order No. H-E-125 of September 13, 2018, of the Chairman of EWRC, a working group was set up with the task of conducting research and analysis of the data and documents, contained in the investment request submitted by Bulgartransgaz EAD and its annexes in order to comply with the provisions of Regulation (EU) 347/2013, including on: the costs and benefits of the project, the financial viability of the project according to the business plan presented, the allocation of the investment costs for the project and its impact on the tariffs .

Pursuant to Article 12 (4) of Regulation (EU) No. 347/2013, within six months of the date on which the last investment request was received by the relevant NRA, national regulatory authorities should take a coordinated decision on the allocation of investment costs of the project to be borne by each TSO and the inclusion of these costs in the tariffs. In this connection and with a view to adopting a decision in a coordinated manner, with Outgoing No. E-15-45-39 dated 30.08.2018 of the EWRC to the Romanian Energy Regulator (ANRE) and Greece (RAE) was

requested information and opinion regarding the investment request, submitted by Bulgartransgaz EAD and given the circumstance, that the results of the country-by-country analysis of costs and benefits showed, that these Member States did not receive significant net benefits from the implementation of the project.

In a letter with Out. No. 65582 of 04.09.2018 ANRE indicated that PCI 6.8.2. does not include a Romanian part at the level of a cluster of projects under point 6.8 of the list of projects of common interest and agrees with the proposal for cross-border costs to be covered entirely by Bulgartransgaz EAD. It should be borne in mind that project group 6.8 of the list of projects of common interest, last adopted on 23.11.2017, no longer contains projects complementing this project, organized by the Romanian operator SNTGN Transgaz. According to ANRE, these findings are supported by the consultations between the TSOs Bulgartransgaz EAD and SNTGN Transgaz, the cost-benefit analysis and the confirmation by the Romanian TSO that the project will not have a significant positive net impact for Romania. In this respect, ANRE considers that the implementation of the project of common interest 6.8.2 brings benefits to the region, but no coordinated decision by NRA of Romania and Bulgaria is required.

In a letter with Out. No. O-73715 of 05.10.2018 RAE has indicated that according to the results of the cost-benefit analysis contained in the investment request, the proposed project has a major impact on Bulgaria and none of the Member States receives significant net benefits from the Phase 2 of PCI 6.8.2. At the same time, the Greek NRA recognizes the regional benefits of implementing the project as part of the NSIEAST_09b group. In view of the above, and taking into account that the Romanian TSO and the Romanian NRA have reached the same conclusion, RAE considers that a coordinated decision by the national regulatory authorities is not required.

On the basis of an analysis of the facts and circumstances contained in the documents in the administrative file, the following was established:

Regulation (EU) No. 347/2013 aims to identify projects of common interest necessary for the implementation of priority corridors and thematic areas falling under the energy infrastructure categories in the fields of electricity, gas, oil and carbon dioxide; to facilitate timely implementation of projects of common interest through streamlining, closer coordination and speeding up authorization processes and increasing public participation; to define rules and guidelines for cross-border cost allocation and incentives to offset risk for projects of common interest; to define the conditions to be met by projects of common interest in order to receive financial assistance from the European Union (EU). In the sense of Art. 2, point 4 of Regulation (EU) No. 347/2013, a "project of common interest" is a project necessary for the implementation of the priority corridors and thematic areas of the energy infrastructure included in the Union list of projects of common interest. According to Art. 3 (4) of the Regulation, the European Commission (EC) is empowered to adopt delegated acts defining the EU list of projects of common interest in the form of an annex to the Regulation. According to Art. 3 (6) of Regulation (EU) No. 347/2013, projects of common interest included in the Union list, shall become an integral part of the relevant regional investment plans, as well as the relevant national 10-year energy network development plans and these projects are given the highest possible priority within these plans.

On the above basis, Commission Delegated Regulation (EU) 2018/540 of 23 November 2017 amending Regulation (EU) No. 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest was adopted. According to Art. 1 of the Delegated Regulation, Annex VII to Regulation (EU) No. 347/2013 is amended in accordance with the Annex to this Regulation. In the the Union list of Projects of Common Interest, in Part 6 "Priority Corridor North - South Gas Interconnections in Central East and South - Eastern Europe" (NSI East Gas), below 6.8. projects of common interest falling within the Greece - Bulgaria Interconnection Cluster and the necessary reinforcements in Bulgaria, including PCI 6.8.2., have been identified. "Rehabilitation, Modernization and Expansion of the Bulgarian Transmission System". Therefore, the inclusion of Project 6.8.2 in the EU list of projects of common interest demonstrates its compliance with the criteria for projects of common interest, as defined in Art. 4 of Regulation (EU) No. 347/2013. In accordance with the requirements of

Art. 4, point 1 of Regulation (EU) No. 347/2013, PCI 6.8.2. is necessary to achieve the goals of NSI East Gas - North-South gas transmission network links in Central, Eastern and Southeastern Europe with the main objective of increasing diversification and security of supply, promoting and increasing competition in the region and improving regional integration infrastructure and markets. The project is an indivisible and important part of the construction of a transport corridor through the Balkan countries and will have a significant positive effect in reaching the EU's objectives of building a united, competitive and sustainable internal energy market.

PCI 6.8.2. is a project whose main objective is the existing gas infrastructure on the territory of Bulgaria, which has been in operation for 40 years, to be adapted to the new market requirements and the infrastructure development plans in the region. PCI 6.8.2 aims to: ensure secure and reliable transmission of natural gas; improve the efficiency and reliability of the transmission system and provide the necessary pressures and capacities; provide technical possibilities for the transfer of additional quantities of natural gas through the territory of a country, entering existing and new entry/exit points and opportunities to diversify the modalities of transmission depending on the market interest; has contributed to increasing market integration, creating a competitive gas market, stimulating trade development, greater system flexibility, and optimizing risk management.

PCI 6.8.2. "Rehabilitation, modernization and extension of the Bulgarian transmission system" falls within the scope of Annex II "Categories of Energy Infrastructure", item 2, b. "a" of Regulation (EU) No. 347/2013, namely: transmission gas pipelines for the transport of natural gas, which are part of a network composed mainly of high pressure gas pipelines. According to Art. 12 (1) of the Regulation, for this project, the efficiently incurred investment costs, excluding maintenance costs, shall be borne by the transmission system operators concerned or the energy transmission infrastructure promoters of the Member States to which the project provides a net positive impact, and to the extent that they are not covered by congestion or other charges, shall be paid by network users through network access tariffs in the same Member States. In accordance with Article 12 (3) of Regulation (EU) No. 347/2013, once the project has reached a sufficient degree of maturity, the project promoters, after consulting the TSOs of the Member States to which the project provides a significant net positive impact, which shall include a request for cross-border cost allocation and shall be sent to all relevant national regulatory authorities, together with the documents referred to in paragraph 3, b. "a" - b. "c"

With reference to the applicable procedure under Regulation (EU) No. 347/2013, it should be borne in mind that by Decision No. I-2 of 10.10.2017, the EWRC has defined the cross-border allocation of investment costs for Phase 2 of a project of common interest 6.8.2. "Necessary rehabilitation, modernization and expansion of the Bulgarian transmission system". By letter with Inc. No. E-15-45-29 of 27.06.2018 Bulgartransgaz EAD informed the EWRC that in December 2017 it was informed of the conclusion of the Evaluation Committee on the inadmissibility of the project proposal and in February 2018 detailed explanations have been received in this connection. The EC considers it necessary to carry out the full consultation procedure under Regulation (EU) No. 347/2013 and Recommendation No. 5/2015 of the Agency for the Cooperation of Energy Regulators (ACER) of 18 December 2015 with a view to achieving transparency on the ascertainment and recognition of project benefits and coordinating decision-making on the cross-border cost allocation (CBCA decision). The EC emphasizes that the evaluated benefits of the project, which are derived from the cost-benefit analysis, are presented globally across the European Union (EU) and are not broken down by country. According to the EC, it is thus likely within the identified common benefits, that the benefit for a single Member State exceeds 10%, which is defined as a significant positive net impact under Art. 12 (3) of Regulation (EU) No. 347/2013. This hypothesis requires the application of Section 1.3. of ACER Recommendation No. 5/2015 setting out the criteria for consultation with all neighboring (TSOs). According to the reasons given by the EC, the procedure applied by Bulgartransgaz EAD did not take into account the necessity to consult with the neighboring TSOs affected by the project in accordance with the guidelines of ACER Recommendation No. 5/2015. This has been reflected in the decision on the cross-border cost allocation of the taken by the EWRC and should be coordinated with the regulators of the affected Member States (Greece

and Romania) in order to avoid any potential doubts. In this connection, the Evaluation Committee has accepted that the issued decision is not in accordance with Art. 12 of Regulation (EU) No. 347/2013.

In view of the above, Bulgartransgaz EAD should consult with the operators of all countries for which the project is likely to have a significant net positive effect in order to be able to apply again with a project proposal for financing the PCI 6.8.2. In this respect, the Bulgarian TSO informs that it has initiated a consultation process in accordance with Art. 12 (3) of Regulation (EU) No. 347/2013 by sending a detailed technical description of the project and a cost-benefit analysis to the following TSOs: DESFA, Greece; Srbijagas, Serbia; Botas, Turkey; Transgaz, Romania; GA-MA AD, Macedonia, as well as to the NRAs of Greece and Romania. Consequently, Bulgartransgaz EAD has submitted an investment request with an Inc. No. E-15-45-39 of 09.08.2018, after the consultations, to which the above mentioned correspondence and the opinions received have been attached.

In the sense of the definition of Art. 2, item 6, b. "a" of Regulation (EU) No. 347/2013 organizer of PCI 6.8.2. is Bulgartransgaz EAD.

The requirement of Art. 12 (3) of Regulation (EU) No. 347/2013, as the investment request submitted includes the necessary documentation: a cost-benefit analysis, a business plan to assess the financial viability of the project, and a proposal for cross-border cost allocation, as well as a copy of the held consultations documentation.

In accordance with Regulation (EU) No. 347/2013 and ACER Recommendation No. 5/2015, the investment request with a proposal for cross-border cost allocation includes:

1. Detailed technical description of the project, including a rationale for the choice of technology

The investment intention of Bulgartransgaz EAD in relation to PCI 6.8.2., Phase 2 provide for the following actions:

1.1. Stage 2 of the modernization of the compressor stations by integrating 4 low-emission gas turbocharger units (GTCU) into 3 compressor stations (CS) - CS Lozenets, CS Petrich and CS Ihtiman.

CS Lozenets is included in the pipeline route, serving natural gas for the countries of Turkey, Greece and Macedonia, and has 9 GTCUs, 7 of which are installed during the first two stages of construction of the compressor station (1988 and 1996) and two SOLAR low-emission turbochargers introduced under Stage 1 of the modernization. It is envisaged that the modernization of CS Lozenets will be accomplished through the construction / installation of 2 low-emission gas turbine turbocharger units (GTCU 10 and GTCU 11) with a capacity of 9.0 MW and compressor output $Q_{max} = 24.0 \cdot 10^6 \text{ m}^3/\text{d}$ of a site located west of the currently installed GTCU 8 and GTCU 9.

CS Petrich is included at the exit of the pipeline route, serving natural gas transmission to Greece, and has 3 GTCUs. In the framework of the implementation of Stage 1 of the modernization of the compressor stations, a new low-emission turbo-compressor unit of "SOLAR" company was installed and put into operation in CS Petrich. Stage 2 of CS Petrich modernization envisages the construction / installation of 1 number of turbo compressor unit (GTCU 4) with a capacity of 9,0 MW and compressor output $Q_{max} = 11,0 \cdot 10^6 \text{ m}^3/\text{d}$ on a site located to the south of the now installed GTCU 3 at a free space between GTCU 3 and GTCU 1.

CS Ihtiman is included in the route of the gas pipeline serving natural gas for Greece and Macedonia and has 4 GTCUs. In the framework of the implementation of Stage 1 of the modernization of the compressor stations, a new low-emission turbo-compressor unit of Company SOLAR was installed and commissioned in Ihtiman CS. Stage 2 of CS Ihtiman modernization envisages the construction / installation of 1 number of low-emission turbo charger unit (GTCU 5) with a capacity of 9,0 MW and compressor output $Q_{max} = 13,0 \cdot 10^6 \text{ m}^3/\text{d}$ on a site located to the south of the now installed GTCU 4.

The rationale for the selection of technologies and the option to implement the Stage 2 activities of modernization of the compressor stations was made by considering two options - the use of centrifugal compressors and the use of reciprocating compressors to increase the pressure of natural gas. The choice of centrifugal compressors, technically and economically more

versatile than the piston, is based on a simpler and more compact design, providing uninterrupted flow of gas without pulsations, high performance and lower operating costs.

1.2. Rehabilitation and replacement of sections of the Northern semi-circle of the gas transmission network with a total length of 81 km, including:

1.2.1. Trail of the section of the gas pipeline to replace Beglej - Dermantsi - Batultsi - Kalugerovo, which is about 58 km long and is part of the northern semi-circle of the gas transmission network, put into operation in two stages, respectively in 1973 and 1975. The site has a strategic importance for the gas transmission network, as it provides for the transport of natural gas from Negru Voda entry point. It is directly connected with the unique gas storage facility in Chiren and is bound to use the interconnector Romania-Bulgaria with the planned interconnector with the Republic of Serbia and the expansion of the Chiren UGS, which determines the urgent necessity and the exceptional importance of its replacement.

1.2.2. The route of the section of the gas pipeline for replacement Valchi Dol - Preselka, which starts with Valchi Dol, at km 62.6 along a main gas pipeline - northern branch and ends at the entrance of a linear crane unit Preselka, km 85.9 along the main gas pipeline - northern branch. The section is part of the North semi-ring of the gas transmission network and was put into operation in 1975. The section is about 23.3 km long, DN 700 and is made of steel pipes. The analyzes made show that for the long-term securing of the integrity of the plot it is appropriate to replace it and it is justified by its strategic significance for the gas transmission network as long as it ensures the transport of natural gas from the entrance point Negru Voda to a large part of the consumers in the country and is directly connected with the only currently existing gas storage facility Chiren.

The choice of technology and route under item 1.2.1. and point 1.2.2. is justified by a feasibility study of the two options for the selection of material for the pipe section - steel grade L 415N (X60) and steel grade L 360N (X52), which shows that it is appropriate to use steel grade L 415N (X60). This steel grade has higher mechanical and strength characteristics.

1.3. In-house inspections were carried out to identify and characterize the state of gas pipelines with a total length of about 220 km. The aim is to make a complete and accurate assessment of the technical condition of two sections of the gas transmission network, including detailed information on all recorded events and defects of the inspection pistons used. The inspections cover the section Cleaning facility (CF) Kardam - CF Lozenets with a length of about 184 km and a section of the CF Batultsi - CF Vratsa with a length of about 37 km. They are of strategic importance because at present the section CF Kardam - CF Lozenets provides the transfer of natural gas through Bulgaria to Greece, Turkey and Macedonia, which is about 15 billion m³/yr, and the section CF Batultsi - CF Vratsa provides access to the Chiren UGS.

The choice of technologies has been made on the basis of the data from previous internal inspections, the analyzes carried out on their basis for the immediate and future integrity of the gas pipeline sections, as well as the implementation of the repair programs and the investigation programs, which state as major threats to the integrity of the pipeline in these sections metal losses (internal and external corrosion) and abnormalities associated with pipeline geometry. Applied technologies for internal tubular examination for the above mentioned threats (abnormalities) are the technology of distracted magnetic flux and geometric inspection pistons. The use of distracted magnetic flux technology also makes it possible to determine the growth rate of corrosion development in gas pipelines.

2. Pre-investment solution

The replacement of a gas pipeline in the section of CF Beglezh – Valve assembly (VA) Dermantsi - VA Batultsi - VA Kalugerovo is included in Table 1 to Projects for development of the infrastructure for natural gas transport and storage in the period 2017-2019 for which an investment decision has been taken, part of the 10-year development plan of the Bulgartransgaz EAD for the period 2017-2026, approved by the EWRC. The replacement of the gas pipeline in this section is also included in the ten-year development plan approved by the EWRC of the network of Bulgartransgaz EAD for the period 2018-2027.

Stage 2 of the modernization of 3 compressor stations is included in Table 1 of the Projects for Development of Infrastructure for Natural Gas Transmission and Storage in the

period 2018-2020 for which an investment decision has been taken, part of the 10-year development plan approved by the EWRC of the network of Bulgartransgaz EAD for the period 2018-2027.

The replacement of the section CS Valchi Dol - VA Preselka is included in Table 1 of the Projects for Development of Infrastructure for Natural Gas Transmission and Storage in the Period 2018-2020 for which an investment decision has been taken, part of the approved by EWRC Ten-year plan for development of the network of Bulgartransgaz EAD for the period 2018-2027

3. Project implementation plan

The project promoter presented a project implementation plan outlining the main stages of PCI 6.8.2., Phase 2 from planning to commissioning. At the time of submission of the investment request with a proposal for cross-border cost allocation, some of the stages have been completed. The following stages of project implementation remain: public consultations under Art. 9 (4) of Regulation (EU) No. 347/2013; pre-investment activities related to the rehabilitation of Northern semi-ring sections of the gas transmission system; authorization procedures; construction, incl. procurement and commissioning procedures up to 12.2021 as shown in Table 1.

Table 1

Stage	Starting date	End date
Stage of planning	06/2008	09/2011
Approval of Planning	11/2008	11/2012
Preliminary design studies	2008	08/2017
Public discussion under Art. 9 (4) of Regulation (EU) No. 347/2013	09/2012	02/2020
Notification of Initial Actions Taken under Art. 10, (1) of Regulation (EU) No. 347/2013	10/2016	12/2016
Licensing process	07/2009	02/2020
Environmental Impact Assessment (EIA) and approval	08/2009	09/2018
Market Test	06/2017	08/2017
Financing (attracting external funding from the CEF)	27.04.2016	05/2019
Investment Claim	07/2018	Up to 6 months from submission date
Cross-border cost allocation request (CBCA) / decision (if applicable)	n / m	n / m
Final investment decision	-	03/2018
Working project	04/2013	01/2020
Procurement procedures	12/2011	09/2019
Build	09/2014	11/2021
Commissioning	10/2015	12/2021

4. Degree of maturity of the project

In connection with the assessment of the maturity of the project, the authorization procedures and the timetable for the project should be taken into account. In 2017, Bulgartransgaz EAD has started a procedure for the preparation of a detailed Phase 2 permitting schedule for PCI 6.8.2, in accordance with Annex VI (2) of Regulation (EU) No. 347/2013, which is being carried out together with ME. The Minister of Energy, acting as a National Competent Authority within the meaning of Regulation (EU) No. 347/2013, confirmed by letter

with Inc. No. BTG-04-04-81 / 1 of 15.08.2017 authorizations schedule, which defines the main stages, the responsible institutions and an indicative time schedule for the implementation of the permitting procedures. An updated authorization schedule for key procedures, including procedures under the Environmental Protection Act (EPA) with an expected deadline of 09.2018; elaboration and coordination of a detailed development plan (DDP) with an expected deadline of 12.2018; elaboration and coordination of a detailed design with expected deadline for completion of the procedure 01.01.2020 and issuance of a construction permit with expected deadline 02.2020.

By decision № 312 of 10.05.2018 of the Council of Ministers of the Republic of Bulgaria, the sites envisaged for construction under Phase 2 of PCI 6.8.2 are declared national sites within the meaning of § 1 of the Additional Provisions of the State Property Act and for sites of national importance within the meaning of § 5, item 62 of the Supplementary Provisions of the Spatial Development Act.

Bulgartransgaz EAD has justified the sufficient degree of maturity of project 6.8.2, which is confirmed by the following circumstances:

4.1. Cost security assessed in cost-benefit analysis at project level. Expenditures are estimated on the basis of concluded contracts for the preparation of a feasibility study and development of a work project with external contractors and made similar and by similar technologies implemented by Bulgartransgaz EAD;

4.2. Good knowledge of the factors that have an impact on costs. The main factors influencing the cost of investment expenditures are the fuel and metal prices, as the markets for these raw materials are very variable and can have a significant impact on investment costs. In addition, environmental protection activities / measures can influence the value of the project. These factors and their impact on PCI costs 6.8.2. are analyzed in the presented sensitivity analysis;

4.3. The investment cost uncertainty rate is below 10%, given the technological solution chosen and significant clarity as regards the options for implementing the activities and related environmental activities and measures;

4.4. Reasonable consideration of the benefits assessed in the cost-benefit analysis (CBA) prepared by the ENTSG for the groups of projects, are included in the Third List of projects of common interest, adopted by the EC on 23.11.2017. The benefits at the project level are determined by applying the methodology under Art. 11 of Regulation (EU) No. 347/2013;

4.5. Good knowledge of the factors that have repercussions on the benefits. The cost-benefit analysis assessed all major market and non-market factors affecting the benefits of investing;

4.6. Authorization procedures have started. In October 2016 Bulgartransgaz EAD sent a Notification for forthcoming actions under Article 10 (1) of the Regulation (EU) No. 347/2013 for PCI 6.8.2. to the Ministry of Energy (ME) as a national competent authority (NCA) within the meaning of Regulation (EU) No. 347/2013. A PCI 6.8.2 description is attached to the notification, as well as Phase 2 in particular - objectives, current status of implementation, financial information, preliminary schedule, location, route. The notification was accepted by the NCA, which initiated the permitting process within the meaning of that Regulation;

4.7. In 2017, Bulgartransgaz EAD has started a procedure for the preparation of a detailed schedule for the issuing permits for Project 6.8.2., Phase 2, in accordance with Annex VI (2) of Regulation (EU) No. 347/2013, and has been approved schedule for issuing permits from ME;

4.8. It is expected that the PCI 6.8.2. Phase 2 infrastructure will be put into operation by the end of 2021 or within 60 months of submission of this investment request.

In the attached cost-benefit analysis, Bulgartransgaz EAD has provided detailed information on the activities of the different parts of Phase 2 of PCI 6.8.2 through which the stage has reached a sufficient degree of maturity for submitting an investment request and an application form for applying for funding.

In this respect and in accordance with Art. 12 (3) of Regulation (EU) No. 347/2013, it can be assumed that PCI 6.8.2., Phase 2 has reached a sufficient degree of maturity.

5. Cost-Benefit Analysis according to Art. 12 (3) (a) of Regulation (EU) No. 347/2013

The cost-benefit analysis for the project was prepared on the basis of the methodology under Art. 11 of Regulation (EU) No. 347/2013 on a harmonized and encompassing entire energy system (including network and market modeling) costs and benefits within the Union for projects of common interest falling under the categories set out in Annex II, (1) (a) to (d) and point 2 of this Regulation. In the CBA for PCI 6.8.2., Phase 2, the results of the cost-benefit analysis prepared in the preparation of TYNDP 2017 and PS CBA modeling by ENTSOG were used in the process of preparing a Third List of Projects of Common Interest at Group Level "Interconnection between Greece-Bulgaria and Serbia and Necessary Intensification and Expansion in Bulgaria and Greece". TYNDP 2017 is published on the ENTSOG website and the results of the PS CBA are presented to the regulatory bodies of the countries affected by the projects, to ASJE and EC, as well as to the representatives of the Regional Group NSI EAST, which includes the project group.

According to the ENTSOG Cost-Benefit Analysis Methodology approved by the EC in 2015, the calculation of the financial and economic indicators should be based on a time horizon covering the period from the preparation of the analysis to the 20th full year of operation of the built infrastructure. In the case of multi-phase projects, the service life begins with the first capacity increase, the time horizon for the entire project ends at the twentieth full year of operation of the built infrastructure. As PCI 6.8.2. is a 3 phase project, as start of operation of the infrastructure is accepted the year of commissioning of Phase 1 of the modernization of compressor stations in 2017, with the analysis time being $n + 20$ to 2036.

For calculating the financial performance of the project, the discounted cash flow method, which includes the time value of all cash, using the current values in the base year 2017

5.1. Analysis of the consumption and gas market in Bulgaria and the region

In accordance with Art. 12 of Regulation (EU) No. 347/2013, the project promoter has carried out an assessment of market demand.

The analysis was conducted taking into account the natural gas search scenarios according to TYNDP 2017 developed by ENTSOG. Long-term natural gas consumption depends on demographic and macroeconomic factors, on energy and emissions prices, as well as on energy and environmental policy objectives. For each of the scenario types (Slow Development, Blue Transition, Green Revolution and Green Revolution in the EU), an option has been developed that reflects the possible demand for natural gas in the future, and various parameters are used to justify the process of data collection. The scenarios for TYNDP 2017 have been developed taking into account: energy policy / regulations; economic conditions; green ambitions; price of CO₂; fuel price; development of renewable sources; energy efficiency; competition with electricity; electrification of heating; gas for coal; gas in transport and electricity in transport.

The analysis of natural gas demand in Bulgaria has been carried out taking into account the following circumstances: Technical design capacity of so-called national gas grid to the main part of consumers in the country amounted to 7.4 billion m³/yr. The quantities transported on the gas transmission system to the national outlets (including the quantities transferred to the Chiren UGS) in 2016 amount to 3 387 million m³, an increase of 4.03% compared to the previous year. Additionally it is done the transmission of natural gas to exit points in South-West Bulgaria, belonging to the so-called transit network for transit. From the data provided, it can be concluded that the distribution of the monthly quantities, carried over during the year, has a pronounced seasonal imbalance. Bulgartransgaz EAD carries out the transfer of natural gas through the territory of the Republic of Bulgaria to cross-border starting points for neighboring countries - Turkey, Greece and Macedonia. Quantities of natural gas transported through the territory of Bulgaria in 2016 amount to 14,623 billion m³ or by 8,28% more than those carried over in 2015. The maximum technical capacity for transport of natural gas through the territory of the Republic of Bulgaria total for the three directions amounts to 17.8 billion m³ and is as follows: for Turkey - 14 billion m³, satisfying 35-40% of the country's consumption; for Greece - 3 billion m³, covering about 70% of the quantities consumed, and for Macedonia - 0.8 billion m³, satisfying 100% of the consumption.

In the period 09.06-03.07.2017 Bulgartransgaz EAD carried out an assessment of non-binding capacity prospects for potential and existing network users in connection with the preparation of an up-to-date assessment of the demand for additional capacity on the market after the implementation of the project . The results of a market survey show that after the implementation of the project, additional output capacities will be made for the following cross-border points: to Turkey at exit point Strandzha / Malkochlar at 58.08 GWh/d, with an expected deadline of 12.2021 and to Greece at exit point Kulata / Sidirokastro at 13.78 GWh/d, with expected deadline 12.2021

5.2. A financial analysis

The main purpose of this analysis is to evaluate the overall profitability of the project, its financial viability and to calculate the cash flows generated during the period under review. The analysis was performed taking into account the following parameters: all cash flows are reported in EUR million; the analysis is only for actual revenue and expenditure; does not include accounting non-cash income and expense; the period includes an investment phase (5 years 2017 - 2021) and an operating phase (15 years 2022 - 2036); the financial projections are calculated in real terms on the basis of 2017, excluding inflation; a discount rate of 8.14% was used and value added tax (VAT) was not included as an expense. The analysis took into account the fact that by decision № NGP-1 dated 01.08.2017 the EWRC approved a weighted average rate of return of the capital of the company at the rate of 8.14% before taxation, at a rate of return of own capital amounting to 7.33%.

The financial analysis was developed with a project funding structure with own funds.

The investment costs of the project combine all the costs incurred during the investment phase, which form long-term tangible and intangible assets at the start of the operating phase. The total investment cost of the project is EUR 148.727 million excluding VAT, and the costs are broken down by type of activity as follows:

Table 2

Activity	Total (in EUR million)
Modernization of compressor stations (Phase 2)	79.804
Feasibility study funded by CEF (Contract 2643/15.11.2016)
Design and planning, author supervision
Purchase of land / easements
Construction
Construction Supervision
Project management
Publicity
Inspections	0.894
Rehabilitation of stretches	
Design of the section Dermantsi - Batultsi - Kalugerovo, financed by CEF
Purchase of land / easements
Construction
Construction Supervision
Design of the Valchi Dol - Preselka section, funded by CEF
Purchase of land / easements
Construction
Construction Supervision
Total CAPEX with CEF to date	148.727

The eligible costs for which the company may apply for funding from the CEF are for the construction of the envisaged infrastructure, obligatory supervision during construction and for

project management and publicity. At the time of submission of the investment request for PIC 6.8.2., Phase 2, grant agreements were concluded by the Connecting Europe Facility: Grant Agreement No. INEA / CEF / ENER / M2015 / 1119568 of up to € 850,000 and Non-Refundable Agreement No. INEA / CEF / ENER / M2016 / 1290626 up to € 182,000. The total co-financing provided through the CEF program to date is worth up to EUR 1,032 million.

The operating and maintenance costs for the first year of commissioning (2022) amounted to a total of € 3,856 million and included: technology costs, material costs, external service costs, personnel costs, social security costs, and other costs. No change in operating costs is foreseen for each year between 2022 and 2036. The costs are broken down by type presented in Table 3:

Table 3

Activity	Total (in EUR million)
Technological costs
Material costs
Costs for external services
Staff cost
Social security costs
Other expenses
Total operating costs

In the analysis of revenues and tariffs, Bulgartransgaz EAD pointed out that with a decision under item 6 of Protocol No. 276 of 29.05.2018 of the Management Board of the company were adopted prices for access and transmission through the gas transmission networks owned by Bulgartransgaz EAD for gas year 01.10.2018 - 30.09.2019, according to the Methodology for determination of prices for access and transmission of natural gas through gas transmission networks owned by Bulgartransgaz EAD. Revenue from the project is calculated by taking into account the estimated usability of the additional capacities to be created as a result of the project implementation. The estimated revenue amounts to EUR 8,834 million for each year from 2022 to 2036.

The financial indicators for the project without Community assistance are as follows:

- Net present value (EUR million) (NPV): 71.193;
- Internal Rate of Return (%) (IRR): -2.19%;
- Benefit/cost ratio (B/C ratio): 0.433.

The financial indicators, net present value and internal rate of return, are negative and show that the project is commercially unviable without EU financial support. Financial performance indicators are also negative.

5.3. The economic analysis has been conducted to identify the net positive socio-economic benefits the project has for society as a whole. Its positive contribution is expressed through the economic profitability of the project, ie. the economic net present value, the economic rate of return and the ratio of economic benefits and costs.

The methodology for developing the presented economic analysis is based on the following sources: ENTSOG cost-benefit analysis methodology, INV154913 of 15.11.2013, developed according to the requirements of Art. 11 of Regulation (EU) No. 347/2013 and the CBA Guide: Cost-benefit Analysis, 2008 European Commission, Directorate General for Regional Policy. The methodology used takes into account the following criteria: market integration achieved inter alia by eliminating the market isolation of at least one Member State; security of supply; competition through diversification of sources and sustainable development achieved inter alia by reducing emissions.

The quantitative analysis presents the benefits of the implementation of the project group given the fact that PIC 6.8.2. is an integral and key part of the NSIEAST_09b group, in line with the established practice of ENTSOG PS CBA. The projects included in the list of projects of common interest are grouped so that they in their entirety and not separately, support the creation of an integrated, competitive and sustainable internal energy market in the EU region and

together contribute to the achievement of EU objectives. In view of the above and the fact that PCI 6.8.2. is a part of the group, but considered in itself, it brings benefits mainly to Bulgaria, the economic analysis presents the results of modeling the impact of projects at group level and not at project level. The benefits of the projects are explored in well-defined scenarios for the development of the natural gas market. In this regard, the quantitative analysis of the NSIEAST_09b project group was performed on the basis of the following indicators:

- *Diversification of routes - Import Route Diversification (IRD)*

The analysis shows that the project group enhances market integration by addressing the problem of insufficient diversification of entry points with neighboring countries for Bulgaria and Serbia by building the necessary infrastructure to ensure sufficient and well balanced diversification of supply routes;

- *Impact on the N-1 indicator*

The simulation of the network shows that the project group contributes to security of supply and competition by addressing the problem that Bulgaria, Greece and Serbia do not meet the N-1 requirement, which is one of the main indicators influencing the impact of the group of projects on the countries subject to the analysis, by providing infrastructure to raise the value of this indicator;

- *Impact of interruption of natural gas supply route*

Supply and competition security has also been measured through the Remaining Flexibility and Disruption Rate indicators. The results show that the group of projects contributes to security of supply and competition by reducing dependence on Ukraine for supply of natural gas to Bulgaria and Macedonia by providing infrastructure to reduce the inability to meet the demand for natural gas in the event of a supply disruption on a main gas import route;

- *Dependence on a sole supplier of natural gas*

Security of supply and competition is also measured by the Cooperative Supply Source Dependence indicator. The results of the analysis show that the group contributes to increasing security of supply and competition by reducing Bulgaria's and Macedonia's physical dependence on their sole source of natural gas by building an infrastructure that allows the share of gas from this single source to be reduced to less than 25%;

- *Access to a limited number of natural gas sources*

The analysis shows that the group of projects envisages building infrastructure to connect countries with limited access to supply sources - Bulgaria, Macedonia and Romania, to a second or third source, to contribute to increased security of supply and competition.

The results of the quantitative analysis show that the NSIEAST_09b project group has made a significant contribution to overcoming the specific challenges of national, regional and international energy markets, namely: market integration, achieved through increased diversification of the routes, that natural gas can reach to Bulgaria and Serbia and security of supply and increased competition, achieved through: raising the N-1 indicator for Bulgaria, Greece and Serbia; increasing the flexibility of transmission systems in case of interruption of natural gas supplies through Ukraine to Bulgaria, Greece and Serbia and a decrease in the quantities of natural gas that would not be delivered to consumers; reducing dependence on the sole source of natural gas for Bulgaria and Macedonia; building infrastructure to provide access to an additional source of natural gas for countries with limited access to sources - Bulgaria, Macedonia and Romania.

PCI 6.8.2. is among the main projects of the NSIEAST_09b group, as without the modernization of the transmission infrastructure on the territory of Bulgaria interconnectors Greece-Bulgaria and Bulgaria-Serbia could not operate.

The economic benefits are calculated for the whole NSIEAST_09b group. For the first year of operation, 2017 is adopted, and the economic benefits are calculated from 2022, which is the first full year of operation of all the components of Phase 2 of PIC 6.8.2.

As a result of the construction of the project, the technical capacity at the interconnection points Strandzha/Malkochlar and Kulata/Sidirokastro will increase, the increase of which represents 30.53% of the total change in the technical capacities. Given this, the estimated

economic benefits of the project implementation are 30.53% of the value-added benefits of NSIEAST_09b.

As a result of the modernization of three compressor stations will be implemented emission reduction of CO₂ at a rate of at least 2.8 tons. The total value of the economic benefits of reducing the release of harmful gases into the atmosphere over the reference period is EUR 0.148 million. The social discount rate for calculating the economic performance of the project is 4%, which is in line with the methodology developed under Art. 11 of Regulation (EU) No. 347/2013.

The economic performance of the project is as follows:

- Net present value (EUR million) (NPV): 521.70;
- Internal Rate of Return (%) (IRR): 26.65%;
- Benefit/cost ratio (B/C ratio): 4.682.

The calculated economic indicators show that the project meets the criteria for EU funding, namely: the project will contribute to improving the well-being of society as the economic benefits outweigh the economic costs and its financing with public funds is justified; the present value of the project is positive and shows the discounted net economic benefits of the project and their high current value and the economic rate of return is above the 4% social discount rate. The cost-to-expense ratio shows that the project benefits the public, with project benefits exceeding costs over 4 times. The project will contribute to the achievement of the specific sectoral objectives of the CEF, as set out in Article 4 (3) of Regulation (EU) No. 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing a Connecting Europe Facility, namely:

- increasing competitiveness by promoting the further integration of the internal energy market and the interoperability of cross-border gas networks by removing internal restrictions in a Member State, reducing Bulgaria's energy segregation and price alignment in the gas markets;
- enhancing the security of energy supply of EU Member States by supporting the diversification of supply sources, supplier partners and routes by enhancing the sustainability of the system by reducing the number of supply disruptions and their duration and by enabling for optimal use of existing energy infrastructure assets, and
- sustainable development and environmental protection, by reducing the CO₂ emissions, emitted into the atmosphere by the compressor stations, covered by the project.

5.4. Sensitivity and risk analysis

In line with the requirement of Regulation (EU) No. 347/2013 and ACER Recommendation No. 5/2015, a cost-benefit analysis incorporates a sensitivity analysis that assesses key assumptions and critical variables. The sensitivity analysis is based on changes in capital and operating costs. They have a significant influence on the prices of fuels and metals used in the construction of the project. The markets for these raw materials are very variable, resulting in significant fluctuations in capital costs. Expenditure increases can also result from prescriptions resulting from an environmental impact assessment. According to the company's calculations, capital investment may vary within +/- 7%. Operating costs are expected to be more stable. One factor that can influence is the cost of labor, given the intention of the government of the Republic of Bulgaria to increase the minimum wage annually. In this regard, the operating cost sensitivity frame is within the range of +/- 2.15%.

Two sensitivity scenarios are used: I scenario with low price: -7% CAPEX and -2,15% OPEX and II high cost scenario: + 7% CAPEX and + 2.15% OPEX. Under the I scenario, the results show that the net present value of the project will be -63.394 million compared to -71.193 million in the base version or an increase of 10.95%. The model shows an economic return of 28.01% compared to a base net return of 26.65%, an increase of 5.11%. In the II scenario, the net present value was estimated at -78,992 million and compared to the base figure showed a decrease of 10,95%. Here, the rate of return is estimated at 25.42% and compared to the base rate is down 4.64%.

Risk analysis is conducted by setting the risk level as a combination of the impact of specific risks and the likelihood of their occurrence. The following groups of risks and their reduction measures are identified:

- External risks to project implementation - adverse changes in the political situation, the economic environment and the exchange rate. Measures to mitigate these risks include monitoring and forecasting external factors and planning the payment of assets or services needed to implement the project;

- Financial and economic risks - related to financing and price/cost growth. Measures to mitigate these risks include ensuring the necessary co-financing, monitoring available funds, complying with the payment schedule logic, and strictly monitoring interim payment claims;

- Organizational risks and risks associated with time-limits, incl. delays in administrative procedures, difficulties in reaching consensus between different countries, delays in decision-making, etc. Measures to limit these risks include identifying all the necessary procedures and decisions, the time and organization, required to create the organization, that is needed and the information to be timely submitted, to the relevant institutions;

- Technical risks - related to the complexity of construction and assembly works, the safety of construction sites, etc. Measures to reduce these risks focus on detailed technical analysis by engineers and contractors, compliance with applicable procedures and standards for construction, technical supervision and control by the assignor and designer;

- The risks associated with tenders and contractors - difficulties/delays in conducting auctions for construction, services and supplies, incorrect forecasts for contractors' work schedules, higher prices than planned budgets proposed at auctions, errors in building performance, services and supplies, financial or contractual claims from contractors, etc. Forecasting and event planning, managing and monitoring public procurement, building, coordinating schedules with affected countries, assessing the impact of possible claims. The Public Procurements will be published in the TED (Electronic Ordering Daily): the online version of the Annex to the Official Journal of the EU, in which notices of public procurement are published to secure the participation of more than one participant and, therefore, to achieve competitive bidding;

- Operational risks related to financial issues will be limited by good governance and monitoring. Estimates of the amount of operating costs are based on historical costs incurred by the company. Measures are foreseen to ensure publicity of the project. The search forecast is conservative. On the other hand, the future development of the gas transmission network will limit the risk of poor service demand and lower revenues than expected.

6. Business plan according to Article 12 (3) (b) of Regulation (EU) No 347/2013

The Business Plan assesses the financial viability of PCI 6.8.2., Phase 2 and has developed funding options. Bulgartransgaz EAD has made an investment analysis of the realization of the project in two variants: with 100% own investment and 68% funding with EU grant under the CEF of the eligible costs related to the construction of the infrastructure and own funds.

The reference period considered in the business plan is 20 years starting from 2022 as the first year of commissioning of Phase 2. The exploitation phase of the project is until 2041 inclusive.

When calculating the financial sustainability of the project, cash inflows and outflows are taken into account. Inbound flows include all possible operating income and net cash flows from the management of financial resources. Cash outflows include investment and operating expenses, repayment of loans and interest payments, and income taxes. From the cash flows presented, it is clear that, without Community aid, cumulative cash flows are of negative value throughout the lifetime.

The project would be financially sustainable when the flow of cumulatively generated cash flows is a positive figure for all years under review.

The business plan analysis shows that the NPV and IRR financial indicators are negative and the project is commercially unviable in financing the infrastructure with the project's promoter own funds. The financial indicators for investment efficiency are negative and indicate that it is justified to fund the project by the EU.

The maximum European financial aid for studies and works is 50% of the eligible costs.

In the event that the project makes a significant contribution to security of supply, promotes solidarity between EU Member States or involves the implementation of highly innovative solutions, the amount of European financial assistance may increase to 75% of the eligible costs. For construction financing, eligible costs include investment in equipment and infrastructure.

According to the analysis carried out, PCI 6.8.2., Phase 2 would not be financially viable in obtaining 50% from the CEF grants. The business plan and the financial analysis, which has been carried out, show that the project is not commercially viable. At the same time, the economic analysis presented above, demonstrates the existence of significant project side benefits, in terms of security of supply and solidarity in the region, as it is a major significant part of NSIEAST_09b project group. In this sense, PIC 6.8.2. meets the eligibility requirements for EU financial support, in the form of a grant for construction, as set out in Article 14 (2) of Regulation (EU) No. 347/2013.

Given the fact that the project is commercially unviable, the required grant is also calculated, whereby the financial performance indicators of the project are improved. These calculations show a need for EU co-financing of 68% of the total eligible construction investment costs. In view of the above, the business plan was developed under the option of up to 68% financing with EU grant under the CEF and own funds of Bulgartransgaz EAD.

The eligible costs for project implementation amount to EUR (...) million, with the necessary co-financing to ensure the financial viability of the project amounting to EUR (...) million under the CEF and EUR (...) million in own financing resources of the TSO. After EU funding, the net present value of the investment becomes a positive figure.

The calculations of the financial indicators of the project before and after EU funding are as follows:

Without Community assistance:

- Net present value (EUR million) (NPV): -71.071;
- Internal Rate of Return (%) (IRR): -1.00%;
- Benefit/cost ratio (B/C ratio): 0.447

With the help of the Community:

- Net present value (EUR million) (NPV): 0.113
- Internal Rate of Return (%) (IRR): 8.17%;
- Benefit/cost ratio (B/C ratio): 1.002

With EU financial support amounting to 68% of the eligible construction costs, the net present value is improving and is already positive; the internal rate of return on capital improves and reaches a level close to the discount rate; the benefit / cost ratio is improving and reaches 1,002 when receiving a grant.

An analysis of the expected potential impact of the project on the access and transfer prices of Bulgartransgaz EAD was carried out. The analysis was performed by considering 3 scenarios: base scenario excluding project-related investments; scenario with 100% financing with own funds of Bulgartransgaz EAD and a scenario with 68% grant financing and 32% financing with own funds of the company. Results of the calculations are indicative; they are made on the basis of TSO approved by Decision № NGA-1/08.01.2017, at EWRC pricing elements for the regulatory period 2017 - 2019 Bulgartransgaz EAD stated that 100% financing the project by the company, the prices for access and transmission will increase on average by 40.16% compared to the baseline scenario. On the other hand, an increase of 7.71% on average is expected in the case of grants and self-financing. It is not foreseen that the estimated investment costs for PIC 6.8.2, Phase 2 will be covered by the current tariffs in force, at the time of preparation of the investment request.

All the above justifies the need for EU financial support through the CEF, which will allow the impact of investment costs on network tariffs to be minimized. Without providing the necessary 68% co-financing, under the CEF, the realization of the PCI 6.8.2. will have a negative impact on the end-users, who will have to bear an enormous financial burden, on the increased tariffs of Bulgartransgaz EAD. Raising tariffs will have a negative impact on both large industrial enterprises and small and medium-sized businesses as their competitiveness and revenue for the economy will be reduced. In view of the above, only 68% guaranteed grant under

the CEF can ensure, that the impact of the allocation of costs only on the Bulgarian side to national tariffs will not pose a disproportionate burden on consumers. The necessity of a 68% grant is also justified by the fact, that the lack of modernization of the transport infrastructure on the territory of Bulgaria under PCI 6.8.2 implies the impossibility of operating the interconnectors Greece-Bulgaria and Bulgaria-Serbia.

7. Benefits to third parties

According to Art.12 (1) of Regulation (EU) No. 347/2013, the investment costs actually incurred, excluding maintenance costs, shall be borne by the transmission system operators concerned or by the energy transmission infrastructure project promoters of the Member States, to which the project provides net positive impact and, to the extent that they are not covered by congestion or other charges, shall be paid by network users through the tariffs for network access in the same Member States. According to Art. 12 (3) of Regulation (EU) No. 347/2013 and ACER Recommendation No. 5/2015, the investment request for cross-border cost allocation should be preceded by consultations with TSOs from Member States, to which the project provides a significantly positive net impact. Pursuant to paragraph 1.3., paragraph 3 of ACER Recommendation No. 5/2015, in the event of any doubt that there is a significant positive net impact on a Member State, ACER recommends that the project promoters consult the TSO of that Member State to ensure that the requirement to consult under Art. 12 (3) of Regulation (EU) No. 347/2013 will be fulfilled if the project provides a significant positive net impact for the Member State as well as not unduly obstructing the decision-making process. In view of the above, in June 2018 Bulgartransgaz EAD initiated the consultations with the transmission system operators from the neighboring countries as follows: DESFA SA, Greece; SNTGN TRANSGAZ SA, Romania; JP Srbijagas, Serbia; Petroleum Pipeline Cooperation BOTAS, Turkey and GAMA AD, Macedonia. According to data from Bulgartransgaz EAD, these TSOs received the technical description of the project and the cost-benefit analysis on 12.06.2018 and 13.06.2018. In order to improve the decision-making process, the letters for consultation of the TSOs by Member States, were sent with a copy to the NRAs of Greece and Romania, which, according to data from the Bulgarian TSO, were received on 12.06.2018.

By a letter with Out. No. 32053 of 27.06.2018 from SNTGN TRANSGAZ SA to Bulgartransgaz EAD, the Romanian transmission operator has indicated that, according to the cost-benefit analysis obtained, it has not identified a significant positive impact of the project for Romania according to the definition of significant benefits under Recommendation No. 5/015 of ACERE to impose the participation of SNTGN TRANSGAZ SA in the consultations preceding the submission of an investment request for the project.

In the process of consulting Bulgartransgaz EAD, no information was received from the other TSOs consulted, which would lead to a change in the results of the cost-benefit analysis and respectively the proposal for allocation of the costs of PCI 6.8.2. Following the submission of an investment request to NRAs of Bulgaria, Romania and Greece, Bulgartransgaz EAD received a letter with outgoing No. 117698 of 28.08.2018 by DESFA SA, in which the Greek transmission operator declares that it agrees with the results of the cost-benefit analysis and the proposal for the cross-border cost allocation for the PCI 6.8.2. Bulgartransgaz EAD presented the opinion of the Greek transmission operator to the EWRC with a letter with Inc. No. E-15-45-39 of 26.09.2018.

The results of the cost-benefit analysis show that benefits outside Bulgaria can be shared between all neighboring countries in the region. In this regard, account should be taken of the fact that PIC 6.8.2. is an integral part of the NSIEAST_09b group, in which the projects are grouped together so as to support, in their entirety and not separately, the creation of an integrated, competitive and sustainable internal energy market in the EU region. PCI 6.8.2. is a part of the group, but considered itself brings benefits mainly to Bulgaria, which is why there is benefit from the project at group level rather than project level. In view of the above, the results of the country-by-country cost-benefit analysis show that none of the other EU Member States receive significant net benefits from the implementation of PCI 6.8.2. Phase 2, with a share exceeding 10% of the total benefits. This conclusion is also confirmed by the consultations with

the Romanian and Greek TSOs. These are also the results of the cost-benefit analysis for the non-EU countries Serbia, Macedonia and Turkey.

In order to comply with the requirement of Article 12 (4) of Regulation (EU) No. 347/2013 and to adopt a decision in a coordinated manner, the EWRC has consulted the NRAs of the neighboring Member States. The Romanian NRA agrees that the costs for the implementation of the project should be borne entirely by the Bulgarian transmission system operator, as only the Bulgarian side will receive significant net benefits from the implementation of the project. In this respect, ANRE considers that the implementation of the project of common interest 6.8.2 brings benefits to the region, but no coordinated decision by NRAs of Romania and Bulgaria is required. The Greek NRA also considers that a coordinated decision by the NRAs of Greece and Bulgaria is unnecessary since the proposed project has a major impact on Bulgaria and none of the Member States receives significant net benefits from the implementation of Phase 2 of the PCI 6.8.2.

8. Proposal for cross-border cost allocation under Art. 12 (3) (c) of Regulation (EU) No. 347/2013

In accordance with Article 12 (4) of Regulation (EU) No. 347/2013, within six months of the date on which the last investment request was received by the relevant NRA, the national regulatory authorities shall, after consulting the project promoters concerned, on the allocation of project investment costs, to be borne by each TSO and on the inclusion of these costs in tariffs. NRAs may decide to allocate only part of the costs or may decide to allocate costs for a package of several projects of common interest. When allocating payments, account should be taken of actual or anticipated transmission fees or other charges. PCI 6.8.2 does not include interconnection points and does not itself generate revenue from congestion management.

ACER Recommendation No. 5/2015 states that when allocating costs and compensation between the parties, the net positive impact from project implementation on each of them should be taken into account. The net positive impact is considered significant if it exceeds a materiality threshold of 10% of the net positive benefits of all net worth countries. In this regard, in view of the cost-benefit analysis provided by the company, Bulgartransgaz EAD's proposal for cross-border cost allocation provides for the cost of implementing the PCI 6.8.2. to be borne entirely by the Bulgarian TSO. The proposal is justified as the results of the cost-benefit analysis show that no Member State receives significant net benefits from the implementation of the project with a share that exceeds 10% of the total benefits.

From the cost-benefit analysis and business plan, it is clear that in the financing of PCI 6.8.2. with own funds of Bulgartransgaz EAD, it is commercially unviable. The project can be implemented with a 68% grant from the CEF and 32% from the project promoter.

In view of the above and on the grounds of the requirements of Art. 12 (1) and (4) of Regulation (EU) No. 347/2013 costs for the implementation of Phase 2 of the PCI 6.8.2. should be allocated entirely at the expense of the project promoter - Bulgartransgaz EAD, and in order to ensure the financial viability of the project, it is necessary to provide financing up to 68% of the eligible costs for construction through CEF.

NRAs of the neighboring Member States Greece and Romania have no objection to the proposal for cross-border cost allocation for the project entirely (100%) for the Bulgarian TSO Bulgartransgaz EAD.

In view of the foregoing and on the grounds of Art. 12 (1), (4) and (5) of Regulation (EU) No. 347/2013 of the European Parliament and of the Council of 17 April 2013 laying down guidelines for trans-European energy infrastructure and repealing Decision No. 1364/2006 / EC amending Regulations (EC) No. 713/2009, (EC) No. 714/2009 and (EC) No. 715/2009

ENERGY AND WATER REGULATORY COMMISSION

HAS DECIDED:

1. Designates for Bulgartransgaz EAD a cross-border cost allocation for a project of common interest 6.8.2. "Rehabilitation, Modernization and Expansion of the Bulgarian Transmission System" - Phase 2, amounting to 100% and the project promoter should provide 32% of the total eligible investment costs for construction and the remaining 68% of them will be insured by applying for grant under Regulation (EC) No. 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing a Connecting Europe Facility.

2. In the event that Bulgartransgaz EAD does not receive a 68% grant under Regulation (EU) No. 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing a Connecting Europe Facility, the terms and conditions for realization of a project of common interest 6.8.2. "Rehabilitation, Modernization and Expansion of the Bulgarian Transmission System" - Phase 2 should be reviewed in order to achieve a balanced impact of the implementation of the project on the tariffs for access and transmission of natural gas through the gas transmission network.

3. Inform the Agency for the Cooperation of Energy Regulators of the cost allocation decision by applying all the necessary information in relation to the decision.

4. The decision to allocate costs should be published.

The decision is subject to appeal in 14 (fourteen) days before the Administrative Court Sofia - city.

CHAIRMAN:

DOCENT DR IVAN N. IVANOV

SECRETARY GENERAL:

YULIAN MITEV

(According to Order No. 909 of 28.09.2018)