

## PRESENTATION SHEET

### for project

### *"Daily withdrawal capacity increase - Bilciurești UGS - Modernizing the infrastructure of the natural gas storage system"*

1. **Cod ENTSOE:** UGS - F- 311; **Cod PIC:** 6.20.7 - the 5th PCI List;
2. **TYNDP 2022:** „Bilciurești daily withdrawal capacity increase”;
3. **Category:** Gas Infrastructure
4. **Project Promoter:** SNGN ROMGAZ SA - Natural Gas Underground Storage Subsidiary DEPOGAZ Ploiești SRL
5. **Countries involved:** România, RO
6. **Technical description of project:**

The project aims to increase the daily delivery capacity of gas in Bilciurești UGS from 14 million Scm/day up to 20 million Scm/day, correlated with an increase in storage capacity of 108 million Scm/cycle. In order to ensure a high degree of operational safety and to enlarge the existent natural gas infrastructure, it is necessary on one hand, to develop new surface facilities that will take over the additional flow and on the other, to upgrade the other existing facilities.

From a technical standpoint, the project consists in drilling 4 new wells, in the modernization of 39 existing wells as well as of the surface infrastructure according to European safety and control requirements, the expansion, modernization and optimization of the separation units and of the fiscal metering unit, a new pipeline between Bilciurești UGS and Butimanu Compressor Unit, the modernization of M3 cooling system and the digitalization of the natural gas storage process at Bilciurești UGS.

The project will be implemented in phases and includes the following:

#### Phase I:

- Modernization of 3 TEG dehydration units – works have been finalized and commissioned;
- Modernization of metering panel at Butimanu – works in progress, scheduled for commissioning by the end of 2024;
- Drilling and equipping 4 new wells in Bilciurești UGS - works in progress, scheduled for commissioning by the end of 2023;
- Systematization of surface facilities at the interface between the Butimanu gas compressor station and the intake/ discharge (exhaust) manifolds that connect the gas compressor facilities to the Bilciurești UGS - works in progress, scheduled to be completed in 2023;

#### Phase II:

- Collector Butimanu - Bilciurești with a diameter of 24” (DN 600 PN 150);
- Modernization of the gas storage groups at Bilciurești;
- Modernization of 39 existing wells;

- Modernization of the M3 Butimanu cooling system;
- Digitalization of the natural gas storage process at Bilciurești UGS;

#### **7. Project location:**

Bilciurești UGS is located in Dâmbovița County, approximately 40 km WNW of Bucuresti and 35 km SSW of Ploiești.

#### **8. Project objectives:**

- Increasing the security of supply through the development and diversification of natural gas resources in the SE of Europe, ensuring a better energetic independence and mitigating the risks of gas flow interruption during peak periods with reference to different disruptive scenarios;
- Daily withdrawal capacity increase by 40%, up to 20 million Scm/day;
- Increase in storage capacity of 108 million Scm/cycle, up to a total storage capacity of 1,419 million Scm/cycle;
- Expanding the portfolio of gas storage services with complex services that integrate, among others, flexibility in operation and network balancing services of the NTS. The new surface infrastructure will provide a high degree of flexibility that will allow a fast reversal of the storage cycle (and therefore allow injection during withdrawal cycle and withdrawal during injection cycle);
- Reduction of carbon emissions, by reducing the electricity consumption required in the storage process by 25%, respectively the execution within the project of an energy production system from renewable sources (photovoltaic panels) and the use of LED technology for interior and external lighting systems;
- The project contributes to a reduction of greenhouse gas and pollutant emissions, aligned to the context of European decarbonization policies and the overall increase in costs of ETS emission certificates. The implementation of the project will allow the role of natural gases or of gases from renewable sources to increase significantly;
- The project contributes to N-1 rule on a regional level, according to EU Regulation 1938/2017. The implementation of the project allows the N-1 indicator to increase from 106,3% up to 114,58%;
- The implementation of the project lowers the dependence on gas imports during the cold season.

#### **9. The contribution of the project to the European and regional energetic security:**

This project of modernization of the gas infrastructure within Bilciurești UGS brings a major contribution to the increase of daily withdrawal capacity and improves the flexibility of the gas storage activity in the SE of Europe, stimulating and accelerating also the development of newly found resources both offshore, in the Black Sea and also onshore, in Romania:

- Bilciurești UGS is connected to "Bulgaria – Romania – Hungary - Austria Corridor", the BRUA project that is being developed in our country by NTS TRANSGAZ and which

contributes to the increase of transmission capacity in RO – HU interconnection point, Csanadpalota-Horia, and to ensure the physical, bidirectional transmission of gas between RO-HU and RO-BG interconnection points.

- The increase of gas storage capacity by 108 million Scm/cycle up to a total UGS capacity of 1,418 million Scm/cycle.
- The implementation of the Project will contribute to the increase of the daily withdrawal capacity by about 20%, at national level.

**10. Sales Market:** internal and regional market;

**11. Strategy for purchasing the equipment:** PUBLIC TENDERING;

**12. Final date of feasibility study (update):** 05.05.2017 - (update 26.08.2020);

**13. Start date of the project (FID):** 2017- project is implemented in phases;

**14. Estimated finalization date:** 2027;

**15. Estimated value of the project (CAPEX):** 156 million EUR;

**16. Financing sources: own sources and attracted sources (including EU funds)**

**17. Production and operation after the implementation of the project:**

- Additional withdrawal capacity of around 108 million Scm/cycle and additional daily withdrawal capacity of around 6 million Scm/day obtained through the implementation of the project will be included in the list of available technical capacities.

Operation of the UGS will be provided by SNGN ROMGAZ SA – Natural Gas Underground Storage Subsidiary – DEPOGAZ Ploiești SRL.

**18. Status of the project:**

The project of modernizing the gas storage infrastructure system within Bilciurești UGS is scheduled to unfold in phases:

1. Modernization works from Phase I are ongoing and scheduled to be finalized at the beginning of 2024. Total value of works: 31.5 million EUR;
2. Engineering technical project for Phase II works has been finalized;
3. The Grant agreement for European funding of approximately 38 million EUR has been signed with CINEA
4. In December 2023 the public tendering for Phase II construction works will be launched.

**18. Environmental protection:** The project complies with the environmental legislation, in force.

**19. The implementation schedule of the project:**

Implementation phases	Estimated start date	Estimated end date
Pre-Feasibility study	02.2015	Finalized 12.2015
Feasibility study	03.2016	Finalized 03.2017
FID		2017
Engineering Phase I	05.2018	2020
Technical documentation for construction permits. Phase I Construction permit obtained	05.2018	In phases until 2022

Tender documentation and public tendering for Phase I works		In phases until 2022
Construction Phase I		2024
Commissioning and start of operation for Phase I		In phases until 2024
Tender documentation and public tender for Phase II - Engineering		12.2022
Engineering Phase II	01.2023	12.2023
Technical documentation for construction permits. Phase II Construction permit obtained	01.2023	11.2023
Tender documentation and public tendering for Phase II works	12.2023	06.2024
Construction Phase II	06.2024	06.2027
Commissioning and start of operation for Phase II		2027

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