

Study of the hydrogen market in Bulgaria

Hydrogen is a viable energy source with zero CO₂ emissions, used as a raw material in industry and as an energy storage tool. It has a key place in the EU strategy aimed at achieving a sustainable energy system and carbon neutrality.

The REPowerEU plan of the European Commission provides for a significant consumption of renewable hydrogen by 2030, equal to 20 million tonnes, with a target of 10 million tonnes of domestic production and 10 million tonnes imports. Bulgaria has the potential both, for production of significant "green hydrogen" amounts through renewable energy, and for cross-border hydrogen transport to the region.

In the context of the energy transition and the objectives of the European Union countries for decarbonization and achieving climate neutrality, Bulgartransgaz EAD plans projects for development of hydrogen transmission infrastructure to support the widespread entry of this promising source into the energy mix in Bulgaria and the EU.

Bulgartransgaz EAD has launched a non-binding Call of Interest to assess the potential of the hydrogen market in Bulgaria, which reflects the company's ambition to contribute to the development of hydrogen and low-carbon economy in Bulgaria and in the region.

The study aims to collect key data from stakeholders and provide particular information on hydrogen market development, and foster potential cooperation initiatives in the field of hydrogen in the context of the single European energy market.

Additional information: The Greek operator DESFA initiates a H₂ Call of Interest to assess the hydrogen potential on the territory of Greece, with further information available at [DESFA Call of interest for H2 market](#)

Bulgartransgaz EAD involvement in the hydrogen sector

In the context of Hydrogen Roadmap Europe and in line with the energy and climate strategic goals and priorities of Bulgaria, Bulgartransgaz EAD participates actively in the hydrogen sector development at national and European level:

- Bulgartransgaz EAD is involved in major initiatives and EU groups aimed at wide implementation of hydrogen technologies and establishment of a pan-European infrastructure model for hydrogen transport, such as the European Clean Hydrogen Alliance, the European Hydrogen Backbone and in the ongoing structuring of the European Network of Network Operators for Hydrogen – ENNOH;
- The company is actively developing a 100% hydrogen transport infrastructure project - a key element of the South East Priority Corridor, which will provide a route for transport of green hydrogen from Southeastern to Central Europe - both from local production and imports.
- Bulgartransgaz EAD works closely with other European transmission system operators from Greece, Romania, Hungary, Slovakia, the Czech Republic and Germany for the development of South-Eastern European Hydrogen Corridor, in accordance with the EU Hydrogen Backbone initiative;
- The company plans the development of projects for construction of internal infrastructure to connect hydrogen producers and consumers.

Interconnected gas pipeline for hydrogen between Greece and Bulgaria: Internal hydrogen infrastructure in Bulgaria towards the border with Greece

Currently, Bulgartransgaz EAD is actively developing the first phase of the planned Hydrogen transmission infrastructure in Bulgaria, covering the route between Sofia region and the Bulgarian-Greek border in the area of Kulata. The project is part of the First List of PCI/PMI according to Regulation (EU) 2022/869 and is subject to potential funding by the Connecting Europe Facility.

It relates to construction of a hydrogen infrastructure on the territory of Bulgaria, suitable for transport of 100% hydrogen, of about 250 km length from the Bulgarian-Greek border with interconnection point Kulata/Sidirokastro to Sofia region. The diameter of the pipes is DN 1000 (40"), and the planned two new compressor stations in the area of the towns of Petrich and Dupnitsa will have a total capacity of 48 MW, which will enable 80GWh capacity per day.



It will be possible to transport bidirectionally hydrogen volumes produced in Bulgaria or produced and imported from Greece, and to ensure the transport on Greek territory, the respective project is planned, with promoter DESFA, which is also included in the active PCI/PMI list of the European Commission entitled [Internal hydrogen infrastructure in Greece towards the Bulgarian border](#).

Bulgartransgaz EAD also plans the second phase of the project on Bulgarian territory, for which it will apply for inclusion in the second list of PCIs. The project consists of a new pipeline of DN1000 (40") diameter and about 330 km total length and three new compressor stations with an estimated commissioning date by the end of 2029.

Following implementation of the second phase of the planned hydrogen transmission infrastructure in Bulgaria, improved cross-border connectivity to Romania and the countries of Central Europe will be ensured.

In parallel, the company plans to build an internal national infrastructure to connect potential users and producers of hydrogen, which will provide an opportunity for transport, use and realization of the potential for hydrogen production in Bulgaria.

Together towards a sustainable energy future

Our initiative aims to gather the most consistent, comprehensive and up-to-date information on hydrogen market development. Therefore, we ask you, even if in conceptual phase for a project, to take part in the study and provide the best possible assessment or description of the studied parameters.

This information is crucial and will demonstrate the readiness and maturity of the market for strategic hydrogen integration in the Bulgarian energy system. This, in turn, will guide and support Bulgartransgaz EAD as a system operator and a future operator of a hydrogen transmission network to identify any expected needs for hydrogen transmission capacity, potential production sites in Bulgaria, as well as exit points to end users. The obtained results will also contribute to timely planning and construction of the necessary hydrogen transmission infrastructure to and through Bulgaria.