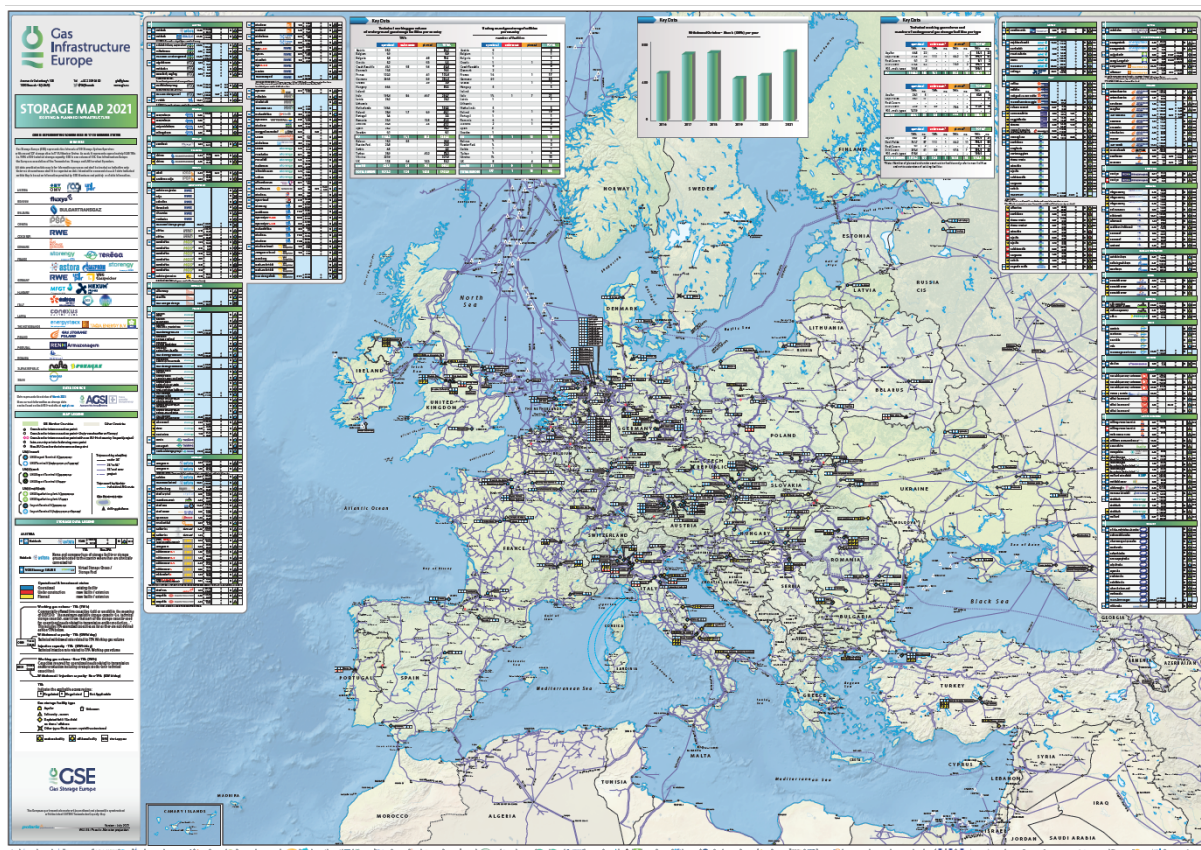


Brussels, 20th July 2021

European underground gas storages: Ready to deliver the Fit-for-55 package

On 20th July 2021, [Gas Infrastructure Europe](#) (GIE) released the latest editions of its '[Storage Map](#)' and '[Storage Database](#)'. These initiatives present a comprehensive overview of the state of play of the existing, under development and planned underground gas storage sites in Europe. They enhance the transparency of the storage market at a time when flexibility options will be key to implementing the [Fit-for-55 package](#).



The analysis of the data collected shows that the technical working volume of underground gas storages within the European Union (EU) reached 1,148 TWh in July 2021. As such, around 25% of annual EU gas consumption¹ can be covered from underground gas storages. Another 96 TWh of projects are planned or under construction.

Dr Axel Wietfeld, President of [Gas Storage Europe](#) (GSE), commented: *"The gradual penetration of intermittent renewable sources into the energy mix and at the same time the necessity to secure energy supply on short-term and seasonal timescales are leaving more and more room for large-scale energy storage. This technology with other flexibility options such as pipelines and LNG terminals are essential to ensure the practical implementation of the 'Fit-for-55' package."*

In particular, the [revised Renewable Energy Directive](#) (REDIII), part of the 13 legislative proposals put forward by the European Commission, has raised the target for renewable energy sources to at least 40% of final energy demand by 2030. Underground gas storages are well equipped to deliver on that: from now on, they can accommodate biomethane and renewable hydrogen without extensive investment. Repurposing existing underground gas storage facilities, according to a recent GIE study², will thus drive the bulk of the future hydrogen storage needs, offering approximately 265 TWh of potential capacities in the 21 countries covered by the European Hydrogen Backbone³.

Francisco de la Flor, Sponsor of GIE System Operations & Development Area, explained: *"In order for hydrogen to reach critical mass, we need to get started now on storages as enablers of substantial hydrogen demand and EU-wide pipeline system already by 2030. From this perspective, integrated infrastructure planning will be a cornerstone of a socially fair energy transition, as emphasised by the European Commission. The new storage map and database published by GIE highlight this objective".*

¹ Calculation based on figures from European Commission (2021) *Quarterly Report on European Gas Markets with focus on the European barriers in retail gas markets*. Market Observatory for Energy, DG Energy, 13(4), fourth quarter of 2020. Available at: https://ec.europa.eu/energy/sites/default/files/quarterly_report_on_european_gas_markets_q4_2020_final.pdf

² Gas Infrastructure Europe (2021) *Picturing the value of underground gas storage to the future hydrogen system*, study by Guidehouse for GIE. Available at: https://www.gie.eu/wp-content/uploads/filr/3517/Picturing%20the%20value%20of%20gas%20storage%20to%20the%20European%20hydrogen%20system_FINAL_140621.pdf

³ Maximum possible hydrogen storage capacity in 19 EU Member States, the UK and Switzerland, using existing gas storage sites could reach 264.7 TWh by 2050, due to the difference in volumetric energy density of hydrogen compared with natural gas. This figure refers to the repurposing of all current natural gas storage capacities (salt caverns, depleted fields and aquifers).

BACKGROUND INFORMATION – About GIE’s storage map

The 2021 GIE storage map constitutes an essential, accessible tool to enhance the transparency of the underground gas storage market. Relying on a solid database available [online](#), it locates and lists the different types of underground gas storage facilities in Europe, as well as nearby infrastructures, and complements the operational transparency platform [AGSI+](#).

A digital copy of the map can be downloaded [here](#), while printed versions will become available by the end of July 2021 and can be ordered from the GIE website.

Who is GIE



Gas Infrastructure Europe (GIE) is the association representing the interests of European gas infrastructure operators. GIE members are active in transmission, storage and regasification via LNG terminals of renewable and low-carbon gases, including natural gas and hydrogen. Gathering 67 industry entities from 26 European countries, GIE perfectly embodies the multiple transitional decarbonisation pathways of the EU regions. The association's vision is that by 2050, the gas infrastructure will be the backbone of the new innovative energy system, allowing European citizens and industries to benefit from a secure, efficient and sustainable energy supply.

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