

LNG in Spain

On the 13th of July, Jörgen Held, the CarbonNeutralLNG Technology Transfer and Dissemination Multiplier Board manager visited CEDER, a Spanish research centre belonging to CIEMAT. CEDER specializes in the applied research, development and promotion of renewable energies. The RD&D activities focus on the energy use of biomass throughout its value chain, studies related to wind energy in low power wind turbines and the search for practical solutions for the integration of renewable generation sources and storage systems in smart microgrids. CEDER has a team of professionals with high technical qualifications and demonstrative technological infrastructures, which also provide technical support to national and international energy companies and institutions.



From the left: Jose Maria Sanchez Hervas, Head of the Combustion and Gasification Division, CIEMAT, Jörgen Held, CEO BEIC, Raquel Ramos, Director CEDER and Luis Esteban, Head of the Biomass Unit, CEDER in front of the CEDER symbol at the entrance to the research centre.

Jose Maria Sanchez Hervas, CIEMAT is a member of the CarbonNeutralLNG Technology Transfer and Dissemination Multiplier Board and he provided the necessary contact to the Spanish Gas Association, Sedigas, which in turn provided some of the information reported below.

Spain is the fifth largest importer of LNG in the world.

With 21.1 MT of imported LNG (approx. 320 TWh) in 2022 Spain was the fifth largest LNG importer of the world behind Japan, China, South Korea, and France. The full data can be found in the report just released by GIIGNL. The 2023 report can be downloaded at the International Gas Union (IGU) web page: <https://www.igu.org/resources/lng2023-world-lng-report/>

Spain has 7 LNG terminals, out of which 6 currently are in operation. The 7th LNG terminal is expected to be in operation in Q4-2023. For details related to capacities, see the table below.

SPAIN - LNG / Regas Terminals

	LNG storage			Truck loading capacity
	Max. Vaporisation capacity (Nm ³ /h)	No. of tanks	m ³ LNG	GWh/day
1 Barcelona	1 950 000	6	760 000	15
2 Huelva	1 350 000	5	619 500	15
3 Cartagena	1 350 000	5	587 000	15
4 Bilbao	800 000	3	450 000	5
5 Sagunto	1 000 000	4	600 000	11
6 Mugaros	412 800	2	300 000	11
Total	6 862 800	25	3 316 500	
<i>Expected to start operations by 4Q2023</i>				
7 El Musel	800 000	2	300 000	9

Source: Enagás GTS, Annual Report 2022

According to NGVA Europe there are currently 94 LNG filling stations in Spain, <https://www.ngva.eu/stations-map/>

Sedigas made a study on the biomethane potential in Spain and concluded that 163 TWh/year of biomethane could be produced from waste. Full information can be found here: <https://estudio-biometano.sedigas.es/>. A summary report (in English) can be downloaded [here](#).

Regarding bioLNG, it has been reported recently that Naturgy will launch a pioneering bioLNG project as it wants to consolidate its position in the renewable gas business in Spain.

The CarboNeutralLNG concept could provide an interesting route to convert a part of the Spanish biomethane potential to bioLNG.