

News Release

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Axpo and GNV complete first ship-to-ship bio-LNG refuelling in Italy

Axpo and Italian ferry operator GNV (MSC Group), supported by the Maritime Authority of Genoa, have successfully completed Italy's first ship-to-ship bio-LNG bunkering operation at the Port of Genoa. This significant step in the Italian ferry industry's energy transition strengthens both companies' leadership in sustainable marine fuels.

The ship-to-ship bunkering operation involved the refuelling of new state-of-the-art ferry GNV Virgo, the first Italian long-distance ro-pax vessel powered by liquefied natural gas to be used on a regular route.

Produced from organic waste materials, bio-LNG is a renewable version of liquefied natural gas. With a much lower overall environmental impact than traditional fuels, it has an important part to play in the energy transition. When powered by bio-LNG – determined by the green fuel's availability – the dual-fuel GNV Virgo will operate in line with European decarbonisation targets, anticipating the EU's long-term aim to be carbon-neutral by 2050.

GNV Chief Executive Officer Matteo Catani said: "This moment represents a true turning point for GNV in reducing the environmental impact of our fleet. The introduction of LNG into our daily operations not only significantly lowers emissions, but also allows us to gain hands-on experience with the technologies that will shape the future of European maritime transport, confirming our commitment to increasingly sustainable and competitive shipping."

"We are working to make the use of bio-LNG a structural solution for our operations. We are aware that, at present, the availability of this fuel remains limited and requires significant investments, as well as the development of a supply chain capable of ensuring stable, large-scale provision. Costs are still high, and the quantity available on the market is not sufficient to meet growing demand. It is a complex journey that requires the commitment and collaboration of all stakeholders in the sector," Catani added.

Axpo Italia CEO Simone Demarchi added: "We're proud to be contributing to innovation and sustainability in maritime transport with GNV, who have risen to the challenge of what is effectively a new frontier for the sector. That such an important development is taking place in Genoa, where Axpo's 25-year presence in Italy began, makes that satisfaction even greater. In particular, we extend our thanks to the Western Ligurian Port Authority and the Genoa Harbour Master's Office for their invaluable support."

Successful operation

The six-hour bunkering operation, conducted according to current safety regulations and international guidelines, saw 500 cubic metres of bio-LNG successfully transferred to the GNV Virgo, enough to fuel the vessel's return voyage to Palermo. Close collaboration between partners Axpo, GNV and local authorities confirmed the Port of Genoa's ability to support complex technological innovations with significant environmental benefits.

The introduction of GNV Virgo to the Genoa-Palermo route will reduce the environmental impact of ferry operations in both ports. The 52,300-ton vessel is 218 metres long, 29.60 metres wide, and has a maximum speed of 25 knots. With more than 420 cabins, it can accommodate up to 1,785 passengers and has a cargo capacity of 2,770 linear metres.

Green shipping transition

Expanding its bio-LNG portfolio and forging partnerships with industry leaders, Axpo is committed to remaining in the vanguard of the green shipping transition.

Axpo's Head of Small-Scale LNG Daniele Corti said: "This operation demonstrates our determination to pioneer sustainable LNG solutions across the Mediterranean market. Bio-LNG is essential to achieving global emissions targets while advancing a cleaner, more sustainable future for marine logistics."

This latest development follows [Axpo's successful bio-LNG bunkering operation in the Iberian Peninsula](#) and pioneering bunkering activities in the ports of Málaga, Algeciras and Sines.

Notes to editors

- Ship-to-ship operation refers to the transfer of liquefied natural gas (LNG) from a specialised LNG vessel to a larger cargo or container ship. This process is conducted at sea or in designated port areas.
- Bunkering is the process of refuelling ships or other vehicles, particularly in maritime contexts. This can include various types of fuel, such as oil, diesel, and LNG.
- Bio-LNG is short for biological liquefied natural gas (LNG), a renewable fuel produced from organic materials such as biomass, waste and agricultural residues.
- A ro-pax is a type of ship that combines the functions of a roll-on/roll-off (ro-ro) cargo ship and a passenger ferry.

About Axpo

Axpo is driven by a single purpose – to enable a sustainable future through innovative energy solutions. Axpo is Switzerland's largest energy producer and an international leader in energy trading and the marketing of solar and wind power. Axpo combines the experience and expertise of more than 7,000 employees who are driven by a passion for innovation, collaboration and impactful change. Using cutting-edge technologies, Axpo innovates to meet the evolving needs of its customers in over 30 countries across Europe, North America and Asia.

Additional information

Axpo Holding AG, Corporate Communications
T 0800 44 11 00 (Switzerland) | T +41 56 200 41 10 (International)
(Available 8.00 a.m. to 5.30 p.m.)
medien@axpo.com

About GNV

Founded in 1992 and part of the MSC Group, GNV is one of the leading shipping companies operating in the passenger and freight transport sector. With a fleet of 26 ships, the company operates 33 routes in 8 countries, serving and connecting Italy (Sardinia and Sicily), Spain (Balearic Islands), France, Albania, Tunisia, Morocco, Algeria, and Malta.