

PRESS RELEASE

The first large natural gas ships are sailing in the Mediterranean

In 2019 the ultimate affirmation of maritime LNG

In the [fifth International Conference on Small Scale LNG - "The Small Scale LNG Use, Euro-Mediterranean Conference & Expo" \(Naples 15-16 May\)](#) - the use of the new fuel in maritime transport will be the focus of analyzes, discussions and future programs. Environmental protection is the guide. The success of the cruise ships and the ferries is countered by the delay in the refueling system, but the road is clear.

Rome, 11 May 2019 - Maritime transport emits around 940 million tonnes of CO₂ a year and is responsible for around 3% of global climate-changing gas emissions. These emissions will increase significantly if action is not taken quickly, given that maritime transport is expected to grow in almost all sectors, starting with cruises.

According to the International Maritime Organization (IMO), a UN agency that oversees maritime activities and decides on the quality of fuels, emissions could be increased between 50% and 250% by 2050, undermining the same objectives as the Paris climate agreement.

To the climate-changing emissions must be added those that affect the health of citizens, such as fine dust, sulfur and nitrogen oxides. Many of the port cities, starting with the largest in Italy, suffer more from port and coastal activities than from house heating, land traffic and industrial activities.

Compared to current marine fuels, liquid methane reduces CO₂ emissions by 15%, those of nitrogen oxides by 70%, fine dust by over 90%, while sulfur oxides are zero. These emissions allow LNG ships to sail in all the seas of the world and stop in all ports (where the emission limits are more stringent than in the open sea) respecting the limits established by the IMO (especially the 0.5% content of sulfur from next 1 January 2020).

Due to the preferences of cruise passengers but also the health of the populations of port cities, the disappearance of black smoke from the chimneys of ships and the smell of naphtha emitted by traditional ships is not secondary.

For these reasons, since the beginning of the decade liquid natural gas has been identified as the best substitute for petroleum fuels and since then more than 150 boats have entered service (25 in 2018 alone) that regularly sail, especially ferries and ships for transport to short haul, but also tankers.

These are not very large numbers when compared to existing ships, but the perspective changes if you look at the new buildings: considering that in 2018, 135 orders were made between tankers, cruise ships, container ports and other types, we see how the relationship between LNG and traditional ships is growing very fast.

2019 marks the date of definitive affirmation of the maritime LNG with the arrival of the first large cruise ships, refueled while they are still at anchor or alongside the port docks. Last April, AIDAnova, the largest cruise ship in the world, entered for the first time in the Mediterranean, followed by the tanker Coral Methane (with a capacity of around 7,500 m³ of LNG), which supplies it alongside the port of Barcelona ([see photo](#)).



Today, about twenty other cruise ships that can use LNG are under construction or in order. The state of the art in the sector, the details of the new market and future prospects will be illustrated directly by the protagonists in the next fifth International Conference on Small Scale LNG – "The Small Scale LNG Use, Euro-Mediterranean Conference & Expo" – in Naples, 15-16 May.

AIDAnova and future strategies will be discussed by the representative of Carnival Corp., the world's leading cruise shipowner and first company to order new LNG ships two years ago. The Costa Smeralda, Costa Crociere's new flagship, will also arrive in the Mediterranean by 2019, with 6,600 passengers and 1,800 crew members.

Each refueling of these cruise ships requires 3,500 m³ of LNG, while the ferries only need a few hundred. To get an idea of what this means for maritime LNG demand, just think that the volumes managed in Rotterdam went from 1,500 m³ in 2017 to 9,500 m³ in 2018. Assuming 30 supplies from here to the end of the year you get to over consumption 110 thousand m³ of LNG in the Mediterranean, from the few hundred in 2018.

The limit to the affirmation of the new fuel (actually in use for 60 years but only for the transport of the same gas) has been the lack of refueling points in recent years. Unfortunately in Italy, due to the lack of rules, it is not yet possible to supply LNG with ships or on-board tankers or other tankers, but it is already possible in both modes in Barcellona and Marseille.

The Italian economy of the sea and the circulation of LNG ships in the central Mediterranean and the Adriatic can be penalized by this situation of delay, which will certainly be discussed in Naples. Better news within the next two years, when two coastal deposits will be finished and able to supply bunker vessels (in addition to tankers).

The first deposit is under construction in the port of Santa Giusta-Oristano, in Sardinia, by Higas (a mixed company formed by Gas and Heat, manufacturer of large tanks for LNG and Polargas, pioneer in LNG infrastructure in Italy); the second in Ravenna, of Edison, which also has another plant authorized in Santa Giusta-Oristano. Exponents of Higas and Edison will intervene in Naples to update the sector on work in progress and new projects.

For shipowners who have to decide on investments it is essential to know when it will be possible to refuel in the waters of the central Mediterranean and between those and which suppliers can choose. For this it will be important to listen also to the intervention of the company OLT, the only large LNG regasification plant, off the coast of Livorno, which is gearing up to supply tankers by 2021.

The report by the Avenir Representative, a company set up by the shipowner Stolt Nielsen and other major global LNG operators, is also highly awaited, which in addition to controlling Higas has ordered 6 tankers (from 7,500 and 20,000 m³) with the aim of supply LNG ships in all the main world ports, starting from Sardinia. The first of these new tankers will arrive in the Mediterranean within this year.

Also Edison is building a tanker ship of about 30,000 m³, capable of refueling at depots quite far from the Mediterranean, such as that of Dunkerque in the English Channel, and offering the service cheaply.

Other uses of LNG, which will be discussed in detail in Naples, concern liquid methane as an alternative source of electricity to traditional ships, when the limit to sulfur emissions will be 0.5% and they will not be able to use their engines as do now. For this purpose, LNG coastal deposits can be equipped with small turbines.

LNG can also be used for all vehicles moving in ports and back-ports (trains, trucks, self-propelled cranes, etc.), and also in large container lifting systems. Positive experiences have already been made and the government energy