

# Adaptation for LNG bunkering/small scale services in Sagunto

EV5

EV5 will study the requirements for the possible adaptation to LNG bunkering and small scale services at the regasification plant of Sagunto.



## Partners involved



The Basic Engineering of the bunkering supply facilities has been carried out. The system includes flexible hoses for loading, boil-off management and cooling. Several safety subsystems (elements for spill containment, detectors, sensors and fire extinguishing systems) have also been included.

The objective of **EV5** is to carry out the technical studies required to adapt the SAGGAS facilities in order to be able to provide the expected LNG demanded volumes in the period from 2020 until 2035.

The first activity concerns the technical and financial feasibility analyses of the compatibility and adaptation of the quay at the SAGGAS facilities, as this regasification plant needs to adapt its berth line and terminal to be able to load LNG on LNG bunkering vessels (these being ships much smaller in their dimensions than the usual LNG carriers calling at the terminal).

From the technical point of view, mooring conditions should be addressed in relation with operational safety and efficiency. Speed of LNG supply using this option will also be a determinant factor as STS may not be legally allowed during stevedoring operations. This would imply that STS supply should take place before or after loading and unloading of the vessel, bunkering time hence being critical as it risks forcing the ship to remain for longer periods of time at port and therefore altering the shipping line schedules. Another important factor to be studied is berthing availability to determine the best bunkering points and also to estimate daily bunkering operations.

The capacity of bunkering barges is another factor to be taken into account. This factor will be related to the number of bunkering vessels to supply, the distance between SAGGAS and the Port of Valencia and the estimated average LNG bunkering volume needed per vessel.

Regarding the engineering analysis and plan of the installation of bunkering loading equipment for LNG barges at SAGGAS. Undertaking this second part will be subject to having obtained positive results both on the technical analysis and on the financial feasibility study previously carried out. The options could be:

- The design of the adaptation of the existing facilities.
- The design of the new facilities required to supplying LNG bunkering barges in other are of the jetty terminal.

If the analyses of the each adaptation of the quay at the SAGGAS facilities conclude that technically the installation of bunkering loading equipment for LNG barges is not possible or that investing in such equipment is not financially profitable for the company, part 2 of the sub-activity will not be carried out and its corresponding budget will not be spent.