

Puertos del Estado launches with the Port Authority of Tenerife a pilot project to supply electricity to ships from hydrogen

- Using an electric generator with an H2 fuel cell, the initiative will allow the crew of the SASEMAR ship based in the port of Santa Cruz de Tenerife to be berthed without having to keep their auxiliary engines running.

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Puertos del Estado, which coordinates the OPS MASTERPLAN project, has established a collaboration with the EVERYWH2ERE¹ to develop a first pilot for electricity supply to ships at berth through on-site generation of renewable energy. This renewable energy is generated from hydrogen by a 100 kW fuel cell being assembled in Italy.

On this occasion, Puertos del Estado has chosen the Port Authority of S.C. de Tenerife, which applied for the materialization of this pilot. This initiative is in addition to the recently completed pilot projects for electricity supply facilities at berth in Santa Cruz de La Palma, San Sebastian de la Gomera and Santa Cruz de Tenerife.

To materialize this supply, the Port Authority of Tenerife has established a collaboration with SASEMAR, which will allow the ship of this company to enjoy the benefits of this innovation such as: the elimination of noise and vibration on board for the crew, and the absence of pollution around the place where this search and rescue vessel is berthed.

¹ The EVERYWH2ERE project is funded by the Fuel Cells and Hydrogen2 FCH joint initiative through grant number 779606. The FCH receives financial support from the European Union's HORIZON 2020 research and development program in the Hydrogen for Europe chapter.

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Press Release

The use of an electric generator from hydrogen to supply ships at berth could be the first pilot for Spanish ports that have already used this new fuel for various machinery or port tools in the Port of Valencia.

– THE OPS MASTERPLAN PROJECT PROMOTES ELECTRICITY SUPPLY TO SHIPS AT BERTH

The Port Authority of Tenerife participates with two other port authorities (Las Palmas and Balearic Islands) in the OPS MASTERPLAN Project, which is co-financed by the European Union. This project, which aims to promote electricity supply to ships at berth, is running several pilots in different ports by providing outlets connected to the general electricity grid, and has promoted relevant measures for the promotion of this innovative technological solution.

The pilot facilities are located in the ports of Tenerife: in Santa Cruz de La Palma, San Sebastian de la Gomera and Santa Cruz de Tenerife, pertinent tests with the shipping company ARMAS in San Sebastian de la Gomera and with FRED OLSEN in Santa Cruz de Tenerife being implemented at the moment. In Las Palmas, 16 outlets will allow the replacement of diesel generators to supply ships and repair equipment on board, thus eliminating noise and pollution in the city of Las Palmas. Finally, in Palma de Mallorca, two electrical outlets - one of them high voltage - will allow the ferries to use the berth at night without creating inconveniences to the neighbouring population.

The OPS MASTERPLAN project has adopted five relevant measures to initiate and make this new form of supply at berth attractive: the modification of the legal framework to allow the Port Authorities and also the electricity distribution companies to execute OPS projects, the 50% subsidy of the port tax, the elimination of the electricity tax, the reduction of the power toll by means of supply contracts by days or even hours, and a subsidy of 10 Euros for each ton of CO2 not emitted to the atmosphere when the ship is connected to the general electricity network at berth.

Press Release

The electricity supply at berth is totally “green” or “sustainable” to the extent that the electricity supplied has been generated by renewable sources such as solar or wind energy. Thus, the pilot project now starting will allow the acquisition of the necessary know-how in hydrogen technology, which is postulated as a key element for the ports of general interest both for its possibilities of energy and fuel repository itself.

The selection of the Port of Tenerife to run the pilot confirms the commitment of Puertos del Estado for the Canary Islands as a model for shaping the new “zero-emissions” economy given its potential in the field of renewable energy and environmental biodiversity.