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Title: **SYSTEM OF GENERATION, TRANSPORT, STORAGE AND SUPPLY OF GREEN ENERGY**

Abstract of the invention:

Green energy generation, transport, storage and supply system; comprising: a floating platform (1), a green hydrogen generating system by electrolysis of desalinated seawater, powered by a renewable electricity generation system, an electronic management system, and a green hydrogen storage and supply system comprising: green hydrogen storage tanks (10) by adsorption; an array of storage cells (31) of the tanks (10) below sea level defined in a lower structure of the platform and a first lifting equipment (12) movable on a grid of rails and provided with means of coupling and vertical displacement of the tanks (10) housed in the cell matrix (32) of the lower structure between a lower position of immersion in seawater and a position upper above the lower structure (3).

Advantages of the invention:

Current trends mean that the energy industry demands energy supply systems that meet the following requirements: generation from renewable energy sources, lower generation costs and storage costs, strengthen the electricity system, make it a system resistant to failures and interruptions, reduce CO2 emissions and generation and consumption in situ.

Currently, offshore renewable energy generation facilities consist of wind farms from a plurality of wind turbines, and where through a submarine cable that transports the electricity generated to land, or a photovoltaic surface over the sea in areas of very low waves, where a cable collects the energy generated in each photovoltaic module to transport it to land to the distribution network of the electricity operator.

Currently, marine infrastructures for the generation of green hydrogen to produce hydrogen are known. Whose architecture is composed of a plurality of offshore wind turbines; On paper there are medium-term wind technology solutions that couple an electrolyzer unit in the mill itself to generate green hydrogen from renewable energy generated and seawater through electrolysis. Whose resulting hydrogen is connected to the operator's hydrogen gas network.

While it is true that progress has been made in the field of green hydrogen storage, the state of the art lacks safer solutions, from the point of view of efficiency, both physical and IT security and sustainability to improve the financial CAPEX / OPEX deployment of these infrastructures.

The system of generation, storage, and supply of green energy object of the invention presents technical characteristics that allow to solve the disadvantages of the existing systems, in particular with regard to the storage and supply of electricity and green hydrogen.

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