

Hydro Verde

Patent status: submitted

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- Expires 1/03/2043

Solution aimed at

- Government, Administration, Smart Cities, Smart Destinations
- Aimed at public & private fuel providers, that operate in ports, yacht clubs, bays, gulfs and coastal areas with difficult access.
- Electric & Gas operators
- Owners of medium and small boats who want to refuel.

Transition from fossil to renewable energy

- Carbon neutral at industrial installations for next 2030
- Green generation and storage of hydrogen generated by renewable energy sources.
- Improve efficiency of fuel supply and decarbonization of marine transport.
- Maximize physical and IT security.
- Digitization of emerging industrial infrastructures to generate hydrogen.
- Create added value functionalities and services: circular economy.

Double hull floating mobile metal platform of two levels.

Offshore generation, transportation, accumulation and distribution of green energy

- Generate hydrogen from wind and photovoltaic energy
- Electrolyzers powered by desalinated seawater and green energy for local supply
- Fuel Cells to provide green electricity

Safely stored hydrogen

- Metal organic frameworks for hydrogen storage.
- Specific hydrogen tanks design
- Hydrogen tanks located under sea

Distribute harvested hydrogen

- On site (at sea) supply of 100% renewable fuel to ships
- Surplus hydrogen stored in tanks for on-demand supply

Secure computing (IT) platform

- Secured, hierarchical and centralized computer architecture
- Cloud-based Big Data processing, electronic switchboard and a peripheral sensor network