

Can offshore power supply reduce air pollution in port areas?

An investigation on the power requirements of ships at berth for implementing Offshore Power Supply (OPS) is presented. It is highlighted that this technology acts as a suitable measure for reducing air pollution in port areas. The study is conducted for Cartagena Port (Spain), analyzing the data port traffic in the period 2010-2016.

What is the best tariff for Ops Supply in Spain?

Regarding the variable term, the most appropriate tariff for OPS supply in Spain would be a six-band tariff for payment for energy and power, with a voltage level above 1 kV and below 30 kV. The energy price per band is shown in Table A3.

Can thermal energy be used in maritime transport?

In fact, the deployment of TES in maritime transport may be justified in a limited type of ships, like cruises, where even during hoteling (or staying on port) periods the thermal energy consumption is still remarkable. In fact, TES was conceived to balance the mismatch between energy demand and production periods.

Can thermal energy storage be used on ships?

Implementation of thermal energy storage on ships Thermal energy storage technologies have been applied in many other fields, where balancing of mismatch between energy production and demand is required.

How to reduce emissions from ships in Port?

Increasingly restrictive environmental regulations for the maritime sector have led shipping companies to look for technological alternatives to reduce emissions. This article introduces a methodology to analyse emission reductions of ships in port by incorporating batteries into the ships or using an onshore power supply system.

Can solar power be used on a ship?

Both solar and wind power are limited by space on the ship's deck. Perhaps the most developed for immediate application is solar photovoltaic power (improving the efficiency of the panels is recommended), as wind power requires further feasibility studies, and fuel cells are still at a preliminary stage.

The most cruise-polluted port in 2019 dropped to 41st last year following a ban on large cruise ships entering the port that was introduced in 2021, leading to an 80% fall in ...

All of these fuels can benefit from energy storage for efficiency and viability; we believe that in the near future, all commercial ships will have a battery room to supplement ...

The Ship Energy Summit 2022 will be held from the 27th to the 29th April and will deal with subjects such as

the use of Liquefied Natural Gas (LNG), the electrification of ports, wind technology or the development of ...

From an energy point of view, 50% of the thermal energy of the wastewater can be reused on board for preheating of domestic hot water. Overall, this solution reduces water consumption ...

The project, which will be taken forward in several stages, will enable the Port Authority to equip seven docks used by regular shipping lines (containers, Ro-Ro, Ro-Pax, cruise ships, and the ...

In it, Arana detailed the main challenges faced by the Port Authorities to neutralise their emissions, "the electrical connection of the ships will mean a five-fold increase ...

The ports of Antwerp, Bremerhaven, Hamburg, Haropa Port and Rotterdam say they will work to deliver onshore power supply for large containerships by 2028. Setting out this timeline, the signatory ports said that ...

This study suggests as a solution to the above-mentioned issue, implementing an Energy Storage System (ESS) and increasing the use of local Renewable Energy Sources (RES). Moreover, ...

The Port of Barcelona is today one of the few European ports that has a port liquefied natural gas (LNG) bunkering service for ships. Last year, the Port of Barcelona carried out 219 LNG ...

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