

Fast charging of Finnish solar-powered containers at drilling sites





Overview

Are offshore floating charging stations a viable option for sustainable marine transportation?

Offshore charging infrastructure for electric vessels is one of the focal areas for sustainable marine transportation. Pervasive deployment of electric vehicles is restrained by travel range and battery energy capacity. This paper brings to bear the exigency of offshore floating charging stations (FCSs) that charge/recharge electric vessels at sea.

What is an offshore floating charging station (FCS)?

The novel concept of an offshore floating charging station (FCS) was previously reported in 2019 (Sruthy et al., 2019). FCS is an autonomous system focused on reducing carbon emissions in the marine sector, unified with RES and energy storage solutions (ESSs), for sustainable development (Sruthy et al., 2019).

What is offshore charging?

Offshore charging represents a new generation of technologies that provide maintenance and standby fleets with the clean energy they need to operate at sea in the vicinity of available offshore power sources. These systems can vary in design and use, ranging from floating buoy charge points to fixed platform systems.

Could offshore charging stations improve green shipping?

Offshore charging stations could be a promising solution to enhance green shipping. This research considers their optimal placement and sizing, extending the economic range of renewable ships to 9,000 km without compromising shipping efficiency.



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