

# **Exchange on Photovoltaic Energy Storage Containers for Oil Platforms in East Africa**





## Overview

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Can a battery-integrated solar PV system support an offshore environment?

Although the LCOEs of the designed battery-integrated system were found to be higher than a typical on-grid solar PV system commonly installed over lakes or dams to support a national energy portfolio, an offshore environment essentially requires an energy storage solution.

What technologies are suitable for offshore oil and gas platforms?

Offshore oil and gas platform Technology suitability assessment Energy storage Supercapacitors Lithium-ion batteries Flywheels Superconducting magnetic energy storage Abbreviations DFIM Doubly fed induction machine ELDC Electrostatic double layer capacitor ES Energy storage ESR Equivalent series resistance FC Fuel cell GT.

Can energy storage systems be deployed offshore?

The present work reviews energy storage systems with a potential for offshore environments and discusses the opportunities for their deployment. The capabilities of the storage solutions are examined and mapped based on the available literature. Selected technologies with the largest potential for offshore deployment are thoroughly analysed.

Are hybrid solar PV & Teg systems a good choice for offshore platforms?

In summary, the comparative results show that the hybrid PV and TEG systems are superior in maximizing sustainability and operational efficiency on offshore platforms. This evaluation underscores the potential of hybrid systems to address future energy challenges. Table 6. Scoring and Evaluation of TEG, Solar PV, Wind Energy, and Hybrid Systems



## Exchange on Photovoltaic Energy Storage Containers for Oil Platform

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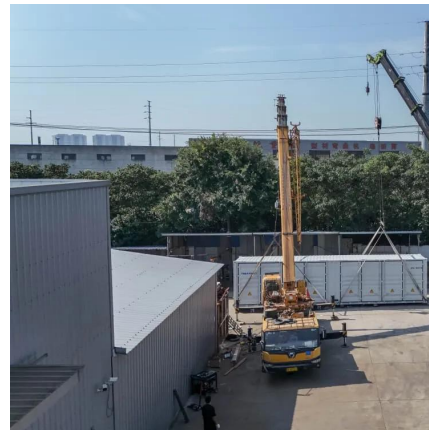


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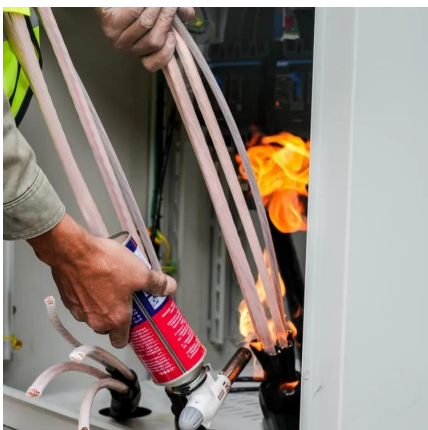
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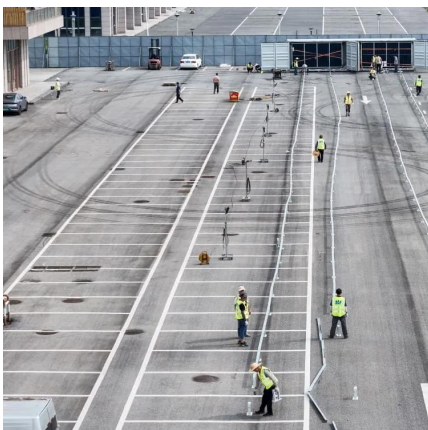


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