

Rapid charging of containers using solar power on oil platforms





Overview

Why are oil and gas companies adopting offshore solar and hybrid power systems?

Oil and gas companies are adopting offshore solar and hybrid power systems, overcoming challenges with new technological advancements. As the global push for renewable energy intensifies, oil and gas companies are increasingly exploring solutions to transition from fossil fuels to more sustainable energy sources for supporting their operations.

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.

How do solar energy storage systems work?

Energy storage systems, such as batteries, can store excess solar energy, providing a consistent and reliable power supply during peak usage periods or when renewable energy output is restricted.

How do offshore battery energy storage systems manage supply and demand?

Any mismatch between supply and demand is managed by offshore battery energy storage systems (BESSs), which accumulate excess renewable energy for use during periods of low wind or solar availability (Extended Data Fig. 2) 38. Other economic and technical assumptions are listed in Supplementary Tables 1 – 3.



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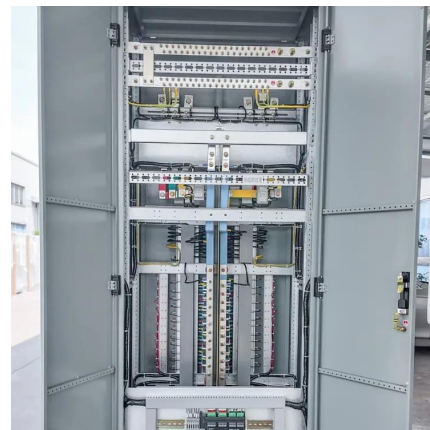


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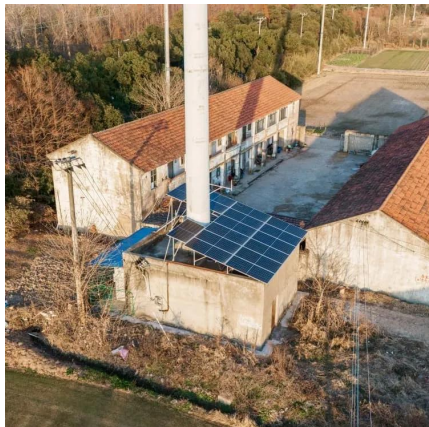
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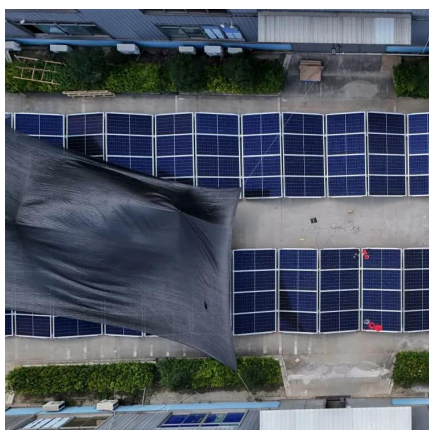
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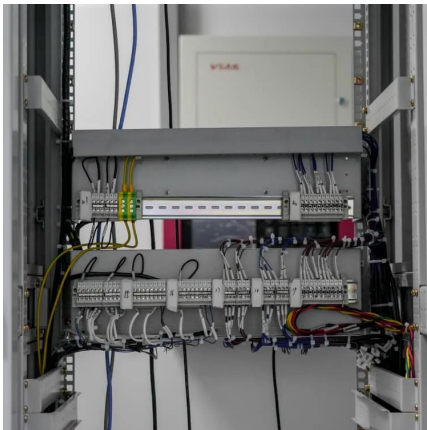
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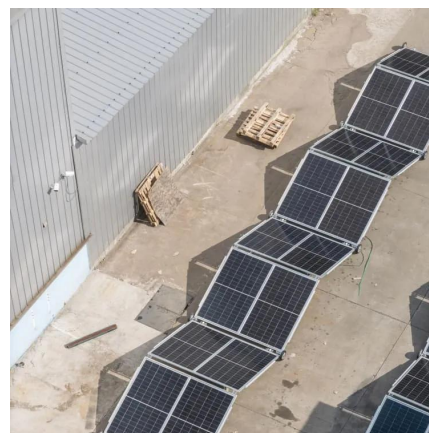


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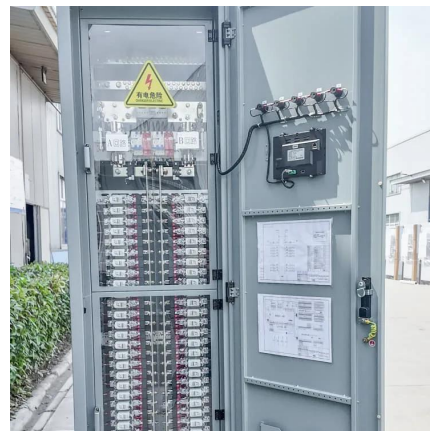
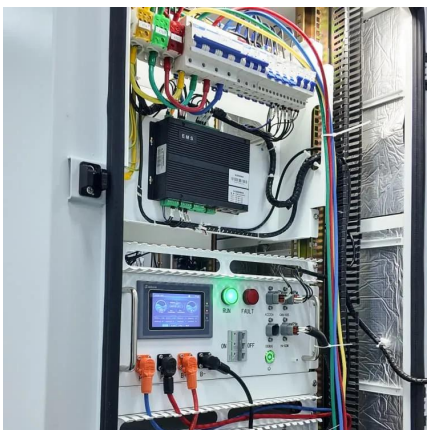


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