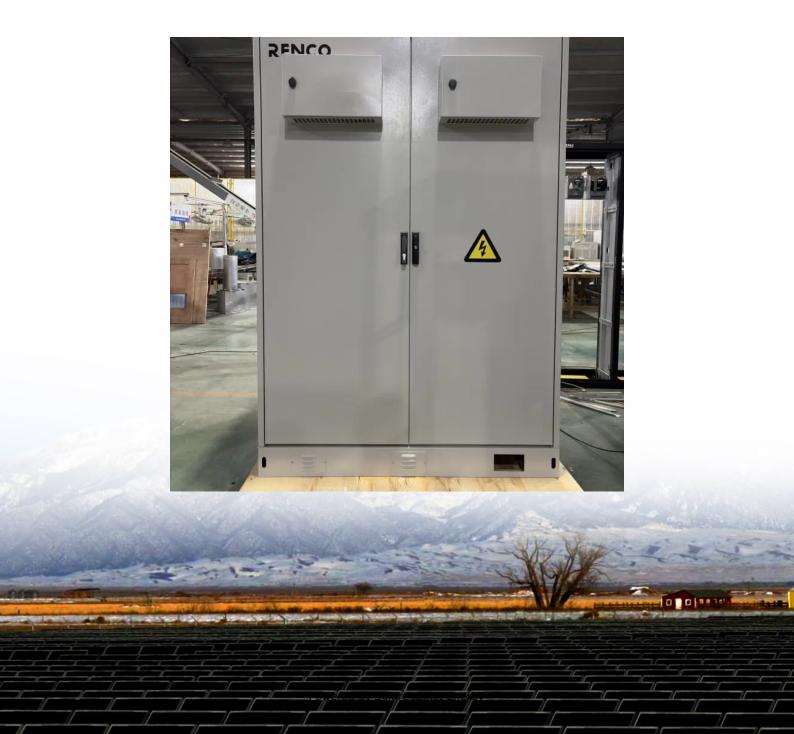


# Installation conditions of island photovoltaic container substation





#### **Overview**

What equipment & systems qualification is required for offshore electrical substations?

Equipment and systems qualification such as energy storage systems (ESS), computer-based systems, power electronic converters, large power transformers, Medium Voltage (MV), High Voltage (HV) gas insulated switchgear equipment, circuit breakers for DC and AC systems, installed on the offshore electrical substations facilities.

Can electrical service platforms/offshore substations be used to transfer power?

Electrical service platforms/offshore substations systems may be used to transfer power to onshore substation/grid, and the arrangements are to be in accordance with Subsection 3/3. Lithium-ion Battery systems are to comply with the Lithium-ion Batteries Requirements.

What is a containerized mobile substation?

Containerized mobile substations are sheltered and address applications in challenging environmental conditions including areas with high pollution, high humidity, extreme temperatures or sand storms. Containers are easy to transport and fast to install, by reducing foundation works as well as installation and commissioning effort on site.

What is the scope of supply for containerized Mobile substations?

The scope of supply covers the complete assembly which may include: Containerized mobile substations are sheltered and address applications in challenging environmental conditions including areas of high pollution, and humidity.

What are the requirements for substation operations?

For substation operations, the requirements of the flag and/or coastal



Administration are to be complied with. Substations are to maintain at least two access/exit gangways during operations to facilitate personnel escape in the event of an emergency.

What are the environmental criteria for floating electrical service platforms?

For floating electrical service platforms, the environmental criteria are provided in Section 3-2-4 of the FPI Rules. Strength assessment includes hull structure, topside structures, supporting structure and interface structures.



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# Offshore Substations and Electrical Service Platforms

Requirements are outlined for the power supply for installed electrical equipment and devices, battery systems and distribution equipment installed on board. This document is applicable to ...

# <u>Island mode earthing arrangements: New Guidance in the ...</u>

In island mode, an installation with EESS must comply with Regulation 21 of the ESQCR, and the PCE operates as a switched alternative to the grid. All live conductors, that is line (s) and ...





# <u>Prevention of Unintentional Islands in Power Systems with</u>

For an unintentional island in which the DR energizes a portion of the Area EPS through the PCC, the DR interconnection system shall detect the island and cease to energize the Area EPS ...

#### Key Installation Considerations for Container Type Substation

The Container Type Substation must be installed considering environmental conditions. In coastal or industrial areas, select corrosion-resistant



materials and ensure the enclosure meets IP54





<u>Design, Construction and Typical Case Analysis of Solar PV ...</u>

According to the vision for 2050 of Renewable Energy Agency, in line with the target of controlling the temperature rise by 2 Celsius degrees, by 2050, the installed capacity of PV and wind ...

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