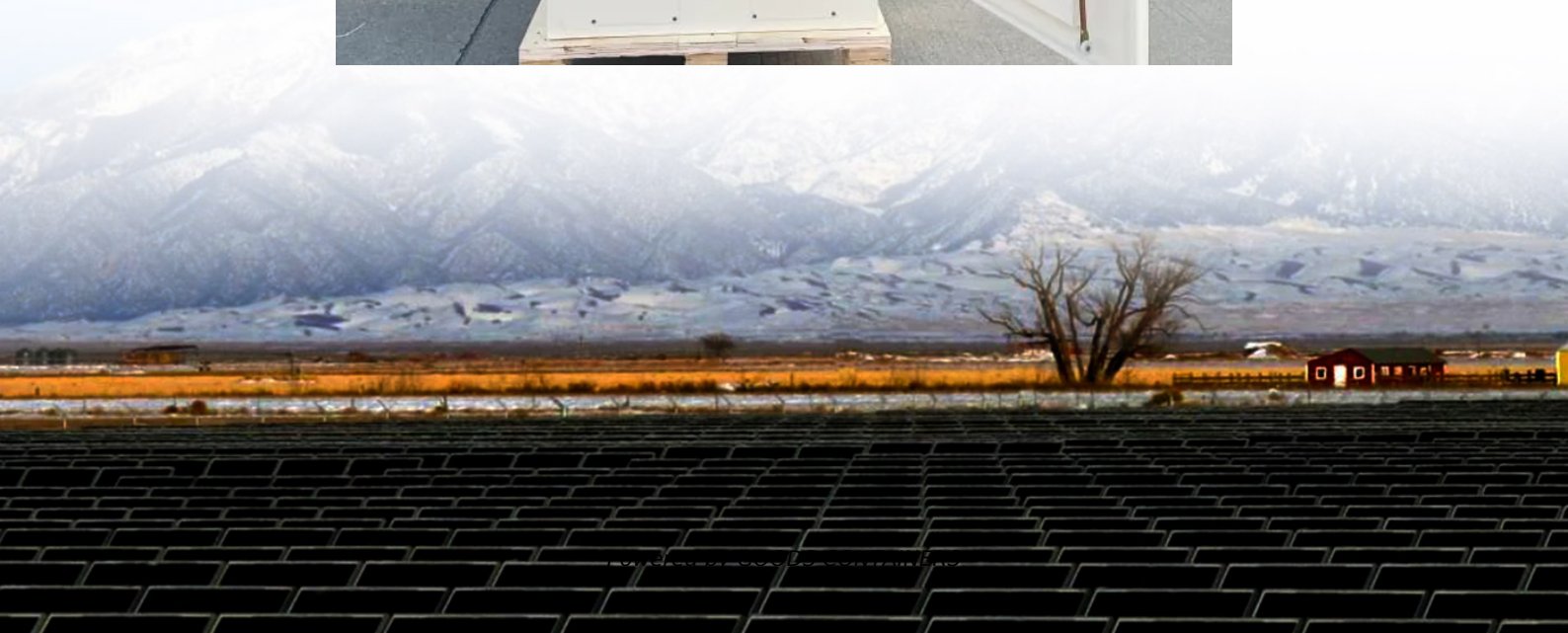


The role of high voltage rectifier inverter





Overview

What is the difference between a rectifier and an inverter?

In most high voltage direct current (HVDC) systems the rectifier controls DC current while the inverter controls DC voltage since this method results in the most optimal HVDC design. Some HVDC systems with extremely weak inverters operate with DC current control at the inverter side.

Are rectifier technologies important for converting alternating current to direct current?

A thorough analysis of rectifier technologies, which are crucial components for converting alternating current (AC) to direct current (DC), is given in this work.

What happens if the inverter AC voltage decreases?

If the inverter AC voltage reduces, the inverter controller moves to constant extinction angle mode in order to prevent commutation failure. Summary In most high voltage direct current (HVDC) systems the rectifier controls DC current while the inverter controls DC voltage since this method results in the most optimal HVDC design.

How do HVDC inverters work?

Some HVDC systems with extremely weak inverters operate with DC current control at the inverter side. The rectifier is typically in the constant current mode and the curve is a vertical line in the HVDC V-I diagram. The diagram is symmetrical around the abscissa axis and illustrates the interchangeable roles of rectifier and inverter.



The role of high voltage rectifier inverter



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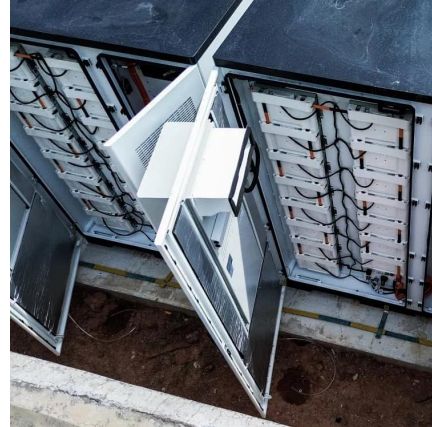
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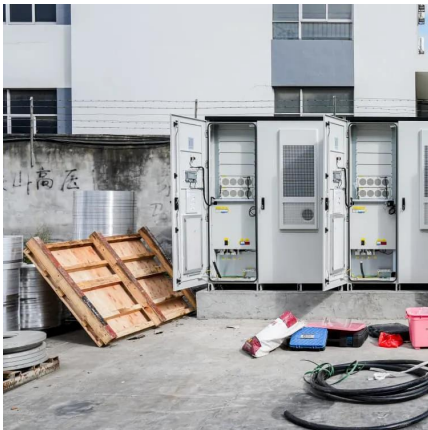
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