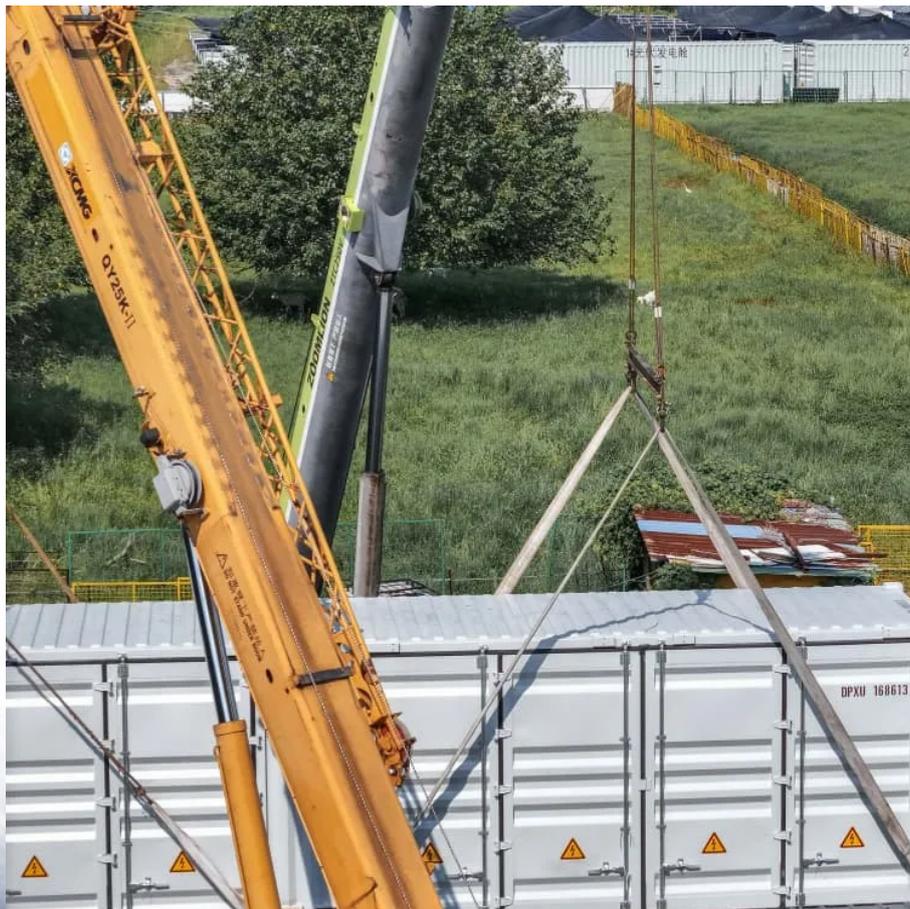


# **Comparison of 200kWh photovoltaic container power generation in hotels with diesel power generation**





## Overview

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Can a diesel generator be used as a photovoltaic system?

In combination, diesel generators and photovoltaic systems are very well suited to energy supply in areas with an unstable or non-existent mains supply. The additional use of solar energy reduces fuel consumption, which saves costs. Furthermore, the integration of a PV system brings a sustainable factor into the system.

What is a hybrid PV and diesel generator (D-HS) system?

Table 2 presents the technical specifications of a hybrid PV and diesel generator (D-HS) system, which integrates PV arrays, a diesel generator, and an inverter to generate and manage energy. The PV array has a nominal maximum power of 300 W, with a maximum power voltage of 37.02 V and a maximum power current of 8.11 A.

Why should you integrate photovoltaics into diesel power systems?

Integrating photovoltaics into existing diesel power systems enables reductions in fuel costs and guarantees an efficient electricity supply. PV-diesel solutions offer independence from rising diesel prices and reduce operating- and maintenance costs, especially in remote areas far from the utility grid.

What is a solar PV-diesel hybrid system?

Additional battery storages can compensate fluctuations in load and irradiation, providing spinning reserve and facilitating optimized diesel operation. A Solar PV-Diesel Hybrid System combines the power output of PV arrays and the diesel generators.



## Comparison of 200kWh photovoltaic container power generation in



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