

# Comparison of a 50kW Solar-Powered Container Solar Unit and a Diesel Engine





## Overview

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What is the difference between a solar PV and a diesel generator?

The solar PV and wind system are combined to provide renewable energy, while the diesel generator serves as an auxiliary unit to fulfill the electric demand during unforeseen fluctuation of sunshine and wind speed.

Are solar generators better than diesel generators?

Hence, reliability is not an issue when it comes to solar powered gensets. Diesel generators, on the other hand, do not have this issue. But if there is a storm or any such disaster, the generators become useless. Thus, when looking at the investment point of view, solar generators win against the diesel generators.

Can a solar powered generator be used as a diesel generator?

When using a diesel generator, the device would go on and on, not considering the amount of power consumed. This can be avoided on a solar powered generator. And all you can do at that time is sit and look at all the energy being wasted. The only drawback with the solar powered generator would be the amount of sunlight the locality receives.

How much does a solar system cost?

The second best optimal combination comprised a 22.6 kW PV array, a 12 kW wind system, and 96 batteries with a total net present cost of \$152,686, a cost of energy of \$0.294/kWh, and an operating cost of \$8,395 per year.



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Solar Container Solutions , ZN-Meox

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