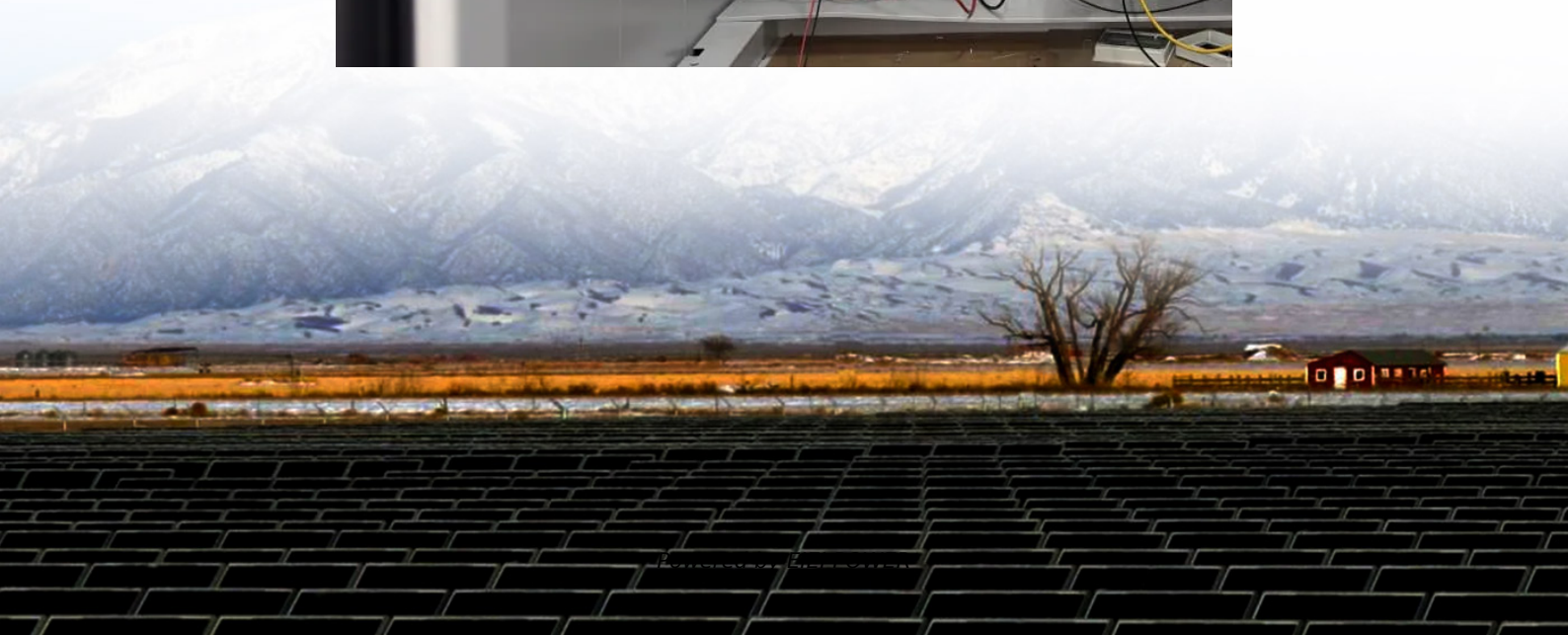


Efficiency of solar air conditioner





Overview

Are solar air conditioners energy efficient?

Solar Air Conditioners are the most energy efficient solution to the high costs of air conditioning.

How much energy does a solar air conditioning system use?

The solar air conditioning system that is used is a closed system and includes an absorption chiller of 70 kW with a working fluid of LiBr-H₂O. In the case that the absorption chiller cannot provide the required energy for cooling, a compression chiller of 50 kW is used in addition.

How energy efficient are air conditioners?

According to the Energy Efficiency Ratio (EER), the air conditioners' energy efficiency ranged from 2.54 to 3.01, with an average of 2. The results showed that the air conditioner samples did not meet the claimed Grade 1 energy efficiency level in all cases.

How much does a solar AC cost?

We found that the investment in a solar AC generally pays for itself within 10 years of purchase. Angi reports the average homeowner spends \$3,400 on a solar air conditioner. In general, they cost \$1,600-13,000. Mini splits are more affordable, while solar-powered central air conditioners cost more.



Efficiency of solar air conditioner



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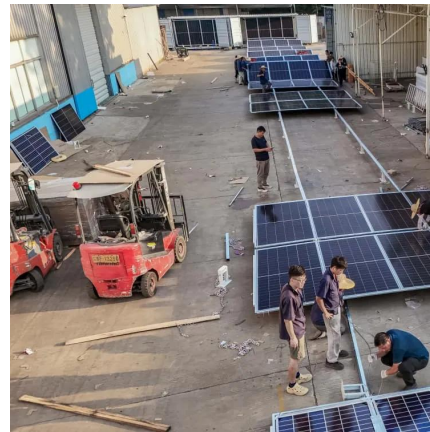
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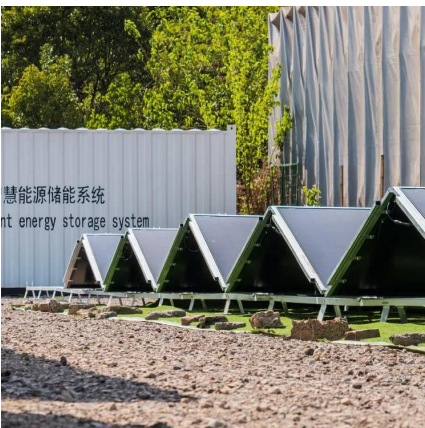
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