

# Off-grid cost of solar-powered containerized mining applications





## Overview

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How can off-grid mining improve the environment?

For off-grid mining, renewable energy and storage technologies present an ideal opportunity not only to improve the mine's environmental footprint, but also reduce energy costs while improving power quality. We are seeing a strong drive to optimise energy across mines, including solutions for e-mobility and rapid charging.

How can solar and wind energy be used in mining?

Solar and wind energy in combination with BESS are clear pathways for the energy transition in mining, while meeting energy production needs for long-term growth. The right integration of these different components is key to success. What lessons have been learned from operational storage projects for mines?

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Can solar power be used to power a mine?

Some mine operators are already using their own land adjacent to mines, to generate solar energy that is then used to power mine operations. These mine-owned projects can then be scaled up and tied to the grid to sell excess power back to local communities.

How can mining companies become energy self-sufficient?

Becoming energy self-sufficient. Overall, mining companies can start transforming their mines today as renewables, specifically solar PV, can now deliver a lower LCOE than diesel. Deployment of solar PV with BESS, for example, is an excellent hedging solution against diesel or gas price increases and/or future carbon costs.



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