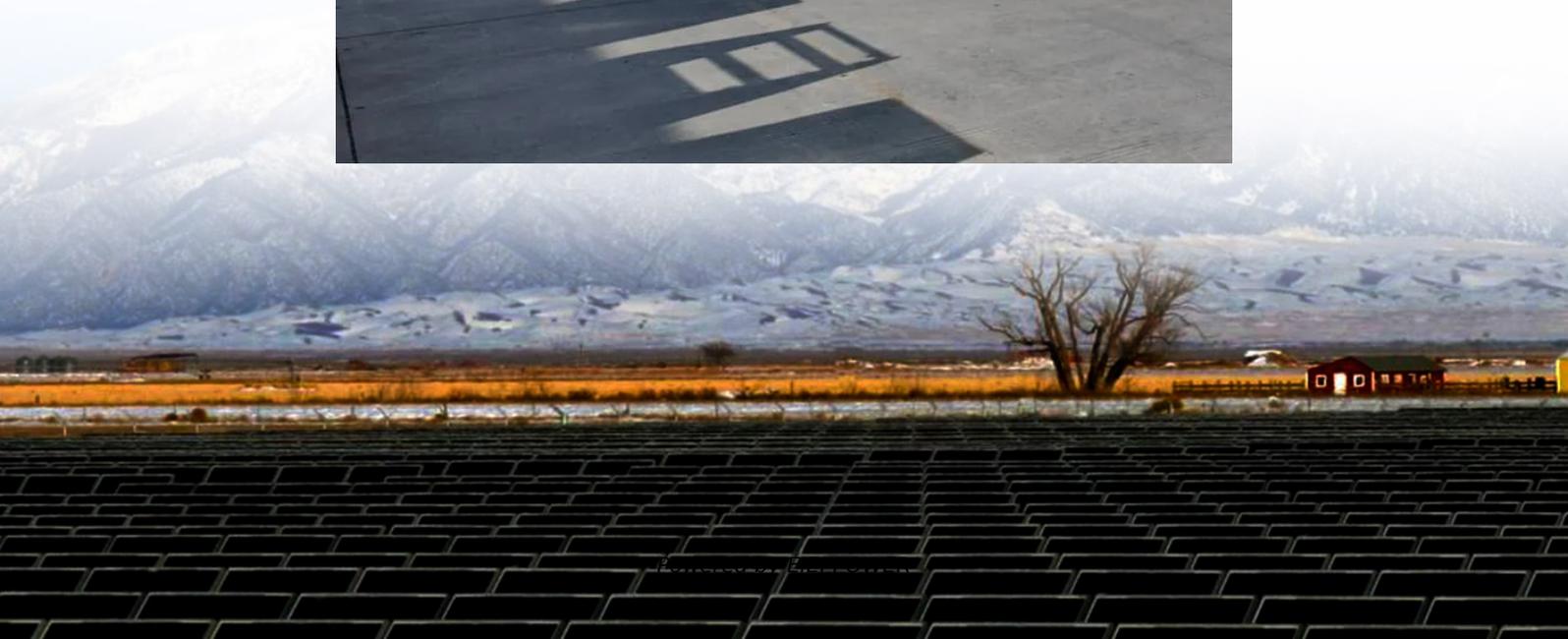


# **Building new energy vehicles and solar energy storage clusters**





## Overview

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Is evies a multi-objective optimization model for a high-rise building wind-solar-storage sharing system?

Amid the rapid growth of the new energy vehicle industry and the accelerating global shift toward green and low-carbon energy alternatives, this paper develops a multi-objective optimization model for an Electric Vehicle Integrated Energy Station (EVIES) and a high-rise building wind-solar-storage sharing system.

Can solar EVs be used as mobile storage units?

Cross-border cooperation in grid management, energy sharing and V2G policies can enhance stability, allowing EVs to act as mobile storage units. Carbon pricing mechanisms, such as emissions trading and renewable energy certificates, provide financial incentives for solar EV adoption.

What is evies & high-rise building wind-solar-storage sharing system?

2. System Description The EVIES and high-rise building wind-solar-storage sharing system utilize wind and photovoltaic power generation to provide clean energy for electric vehicles and high-rise buildings and facilitate power storage and scheduling via the energy storage system to improve energy utilization efficiency.

Can electric vehicles be integrated with a building?

Electric vehicles (EVs) can be integrated with the building as mobile energy demand and energy supply units. The electrical performance of EVs is modeled using TRNSYS Type 47 corresponding to a simple energy balance to specify the dynamic EV state of charge varying with the input charging and discharging power.



## Building new energy vehicles and solar energy storage clusters



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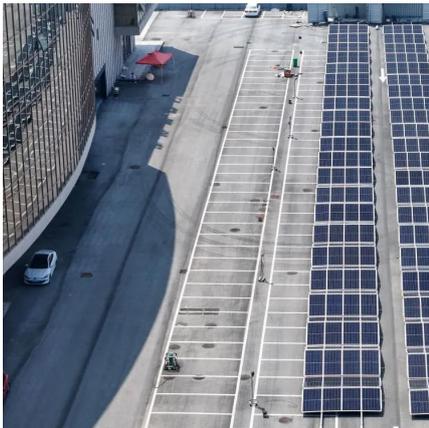
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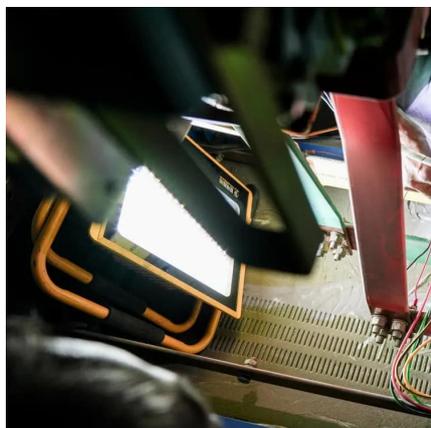


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