

SolarInnovate Energy Solutions

Photovoltaic version On-site energy solar energy



Overview

several options are available for on-site renewable generation, and the best solution can vary from one location to another, this resource focuses on solar photovoltaic (PV) systems as a specific example of on-site renewable energy generation. How can on-site solar PV & energy storage improve sustainability?

To achieve sustainability goals while meeting the increasing electricity demands of electrification, organizations are pairing on-site solar PV generation with on-site energy storage. These systems, which are considered as “behind-the-meter” (BTM) systems, allow facilities to maximize the benefits of on-site renewable generation.

Is solar photovoltaic electricity a viable energy source?

The cost of solar photovoltaic electricity has been divided by 10 in the last 12 years, making it one of the most competitive energy sources in the world today. It is now possible to dispose one’s own autonomous energy ecosystems that can continuously meet up to 100% of one’s own electricity needs.

What is photovoltaic solar energy?

Photovoltaic solar energy meets the challenges of decarbonization, optimizing energy costs and increasing energy independence.

What is on-site renewable generation?

On-site renewable generation refers to the production of clean and sustainable energy from renewable sources at or near the location where it is consumed. It involves setting up renewable energy systems like solar panels, wind turbines, or small-scale hydroelectric generators to generate electricity on-site.

Should solar PV production be reduced on-site?

Increasing the amount of solar PV production on-site can provide additional cost and emission reductions and resiliency benefits for facilities. However,

the additional generation that can result from larger systems during peak daylight hours must be exported or managed through curtailment on-site.

What are the benefits of an on-site solar PV system?

For the scenario represented in the graph, an on-site solar PV system allows the facility to reduce the amount of electricity drawn from the grid during the middle of the day. Increasing the amount of solar PV production on-site can provide additional cost and emission reductions and resiliency benefits for facilities.

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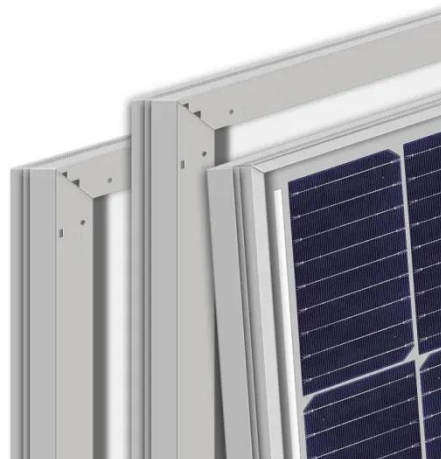


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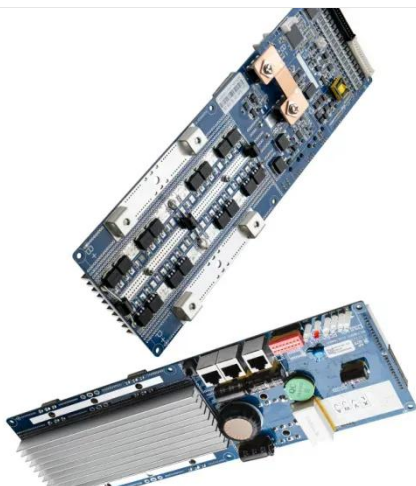
Spatial modelling the location choice of large-scale solar photovoltaic

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