

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.

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.

Is rooftop solar a good option for a building?

Rooftop solar remains one of the most accessible and cost-effective ways to generate on-site power, particularly for facilities with high daytime energy usage. These systems can typically offset a large portion of energy consumption in a building and are relatively simple to install.

What are the major advances in solar energy?

The advent of more efficient and cost-effective solar battery storage systems is another significant advancement. These batteries store the surplus power generated by the solar panels, which can be used when the sun isn't shining. Some key features of these advances include:

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.

Can on-site storage be used alongside solar PV?

If a utility restricts the exports from a facility to the grid, the use of on-site storage alongside solar PV can provide a solution to avoid costly infrastructure upgrades, thus increasing the feasibility of larger on-site PV installations.

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