

Household rooftop solar energy storage





Overview

Are rooftop solar panels or battery energy storage systems worth the cost?

Pacific Northwest National Laboratory (PNNL) researchers are here to help. Homeowners must navigate a quagmire of complicated policies to determine whether the energy savings from rooftop solar panels or battery energy storage systems (BESS) are worth the high upfront cost.

Are rooftop solar and battery energy storage a barrier to adoption?

Even with the benefits of rooftop solar and battery energy storage, the upfront cost of these systems is still a barrier to adoption. In some cases, especially for BESS, the time it takes for a homeowner to recoup the cost of the system with energy savings is longer than the lifetime of the technology itself.

Can solar panels be used on a home's roof?

With solar panels now commonplace on residential roofs, homeowners are exploring next-level energy technology, specifically Energy Storage Systems (ESS), or backup battery systems, for the home.

What is a solar energy storage system?

They capture and store energy, from sources such as solar panels or directly from the grid during off-peak times, and supply it when needed, reducing reliance on the grid, lowering energy costs, and providing backup power during extended outages. Two examples of commercially available storage solutions are Tesla Powerwall and LG Home Battery RESU.



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