



The Energy Headlines

THE ENERGY NEWSLETTER OF MNIT JAIPUR



“It’s as certain that as long as fossil fuels are the cheapest energy, we will just keep burning them.”
— James Hansen

What is the purpose of a solar power storage system?

This component of the photovoltaic system is used to store the solar electricity. Without the storage, the solar power produced must be consumed directly or fed into the public grid – otherwise it is lost. Direct use is often not or only partially possible because PV produces most of the electricity during the day. However, experience shows that demand typically increases towards evening times. The feed-in tariff for solar electricity is much lower than the purchase price, however. Economically speaking, it doesn’t make sense to feed electricity into the grid during the day and draw it from the grid in the evening. A storage solution therefore considerably increases the economic efficiency of the photovoltaic system.

Solar with Storage for Critical Services Providers: Barriers and Opportunities

Solar with storage is increasingly being explored by low-income service providers, such as affordable housing developers, community institutions, and municipal facilities, to improve resilience in the event of an outage and reduce energy costs. Despite an increase in the occurrence and duration of power outages due to extreme weather and climate change, penetration of solar with storage in these markets still remains low.

To gain more insight into what barriers are preventing greater implementation of solar with storage in under-served communities, Clean Energy Group (CEG) conducted a survey of 60 municipalities, community organizations, affordable housing developers, and technical service providers working in low-income communities. CEG overviews these survey results and provides recommendations to overcome barriers to solar with storage development in the recent report, *Overcoming Barriers to Solar with Storage in Critical Facilities Serving Low-Income Communities: A Survey of Service Providers*. CEG released a previous report, *Overcoming Barriers to Solar and Storage in Affordable Housing*, that explores the results of this survey that pertained specifically to affordable housing developers.

Overcoming Barriers



The experiences shared by CIMCC, UPAL, Footprint Project, and New Partners Community Solar provide valuable insight into the solar with storage process for low-income service providers. However, their experiences are not unique. The vast majority of responses to the CEG survey reflected similar obstacles and highlighted the same bottom-line: low-income communities require solar with storage resources but face significant barriers in accessing resilient power technologies.

Overcoming Barriers to Solar with Storage in Critical Facilities Serving Low-Income Communities: A Survey of Service Providers not only overviews barriers to solar with storage development, but also provides realistic recommendations for how low-income service providers can be better supported in developing solar with storage resources, including:

- 1) Increase Awareness of Battery Storage: Freely available educational resources can help to address the resilient power learning curve faced by organizations when considering backup power options.
- 2) Create Opportunities for Capacity Building: Programs that support internal capacity building can uplift community organizations struggling to develop resilient power resources due to limited staff time and resources.
- 3) Provide Technical Assistance Support: Upfront technical assistance from a trusted third-party can provide a valuable first step in the resilient power process by framing the economic and resilience potential of a specific solar with storage project.
- 4) Develop Innovative Incentive and Finance Options: Programs that reduce upfront costs and monetize grid services can improve system economics. Solar with storage finance options tailored to meet the needs of service providers can spur market development in under-resourced communities.
- 5) Establish a Monetary Value for Resilience: Assigning a monetary value to resilience can improve the economic calculus for organizations weighing the economic benefits of solar with storage.

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