

# **Understanding Energy Storage**

The average American home consumes **30 kilowatt-hours (kWh) of electricity per day**. One SolarEdge Energy Bank stores 9.7 kWh, meaning up to three batteries would be required to power a home for a full day under typical usage. After this, a recharge period would be necessary to continue supplying power.

## **Using a Critical Loads Panel for Backup Power**

To make the most of stored energy, a critical loads panel can be installed to prioritize essential circuits during a power outage. This typically includes:

- **Refrigerator & freezer**
- Essential lighting
- Wi-Fi router
- Small electronics

It is not recommended to back up large appliances such as air conditioners, geothermal systems, or other **high-energy devices**, as they quickly drain battery reserves.

## **Energy Storage System (ESS) Installation Guidelines**

### **Approved Locations:**

- Insulated detached garages and accessory structures.
  - The recommended temperature range for battery storage is **32°F 86°F**, with SolarEdge batteries operating between 14°F – 122°F.
- Attached garages, enclosed utility closets, basements, or storage/utility spaces, as long as they are properly separated from living areas.
  - Walls and ceilings must be covered with at least ½-inch Type X gypsum wallboard.
- On exterior walls, at least 3 feet away from doors and windows leading directly into the home.
- If placed in a garage, batteries should be mounted on the wall parallel to where the car is parked.

### **Restricted Areas:**

ESS **cannot** be installed in sleeping rooms or spaces that open directly into sleeping rooms.



Photo: SolarEdge.com