

# SOLAR + STORAGE

*building the the resilient energy grid of tomorrow*



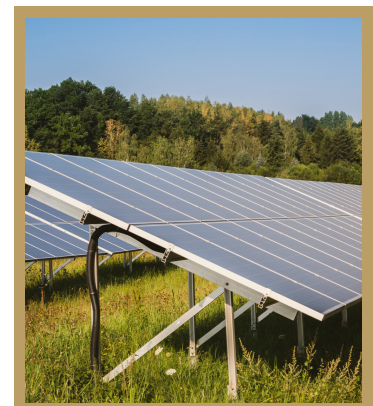
**Solar energy and battery storage complement each other by harnessing the sun's power during the day and storing excess energy for use during evenings, ensuring a resilient, independent and reliable energy grid.**

## **SOLAR SUPPORTS FARMERES AND AGRICULTURE**

- Solar energy not only provides a new “cash crop” for farmers but enables opportunities for land to have dual income streams by growing crops under solar panels or grazing livestock on the same land.
- “Agrivoltaics” is the term commonly used for these integrated solar/agriculture practices that serve as a sustainable approach to conserving farmland, supporting farmers and providing a drought-proof revenue stream thanks to solar leases.
- Solar energy helps preserve and restore farmland, which can be even more productive in the future after years of rest and regeneration.
- Bees and other pollinators are an essential aspect of crop production and are disappearing from our landscape. By installing native flowers and plants beneath ground mounted solar arrays, they become pollinator-friendly places and support critical habitats. Not only will this benefit future crop yield, but it will also prevent erosion and contribute to biodiversity.
- Solar energy projects can help keep family farms in the family for generations to come.

## **SOLAR ENERGY POWERS ECONOMIC OPPORTUNITY**

- 231,000 American's work in the solar industry.
- Solar energy projects are often sited in rural areas that have otherwise seen little job or economic growth. The projects help infuse new revenue into the county that helps pay for critical amenities like first responders, roads and bridges, and schools.
- Land lease payments to landowners help provide American farmers with a revenue stream they can depend on during ever-fluctuating commodity markets.



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## BENEFITS OF ENERGY STORAGE



**ENHANCES GRID RELIABILITY:** The power grid has always depended on a “division of labor” among diverse generation resources to cost-effectively meet reliability and resilience needs, because no single energy source is perfectly reliable. Energy storage enhances reliability, ensuring the seamless, synchronized delivery of electricity to consumers and businesses.



**CREATES A FLEXIBLE & NIMBLE ENERGY GRID:** Storage increases flexibility for the grid and helps provide uninterrupted power for consumers, businesses, and other users.



**INCREASES GRID RESILIENCE:** All power plants are affected by the weather, adding more renewable and storage resources can build a stronger grid by increasing resilience to disruptions due to severe weather. During brief outages, energy storage can help businesses avoid costly disruptions and continue normal operations.



**REDUCES CONSUMER COSTS:** Energy storage helps level the energy load. Storage can offset costs by storing energy when prices are low and discharging it during peak periods when rates are higher.

## ENERGY STORAGE IS SAFE

- Safety is always the top priority for energy developers, and battery storage is no exception.
- The design, construction, and operation of any energy storage system begins with safe equipment and compliance with all relevant local and state fire codes.
- Storage equipment complies with stringent quality and safety standards, ensuring all equipment is tested and certified by third party professionals.
- Suppliers are usually ISO 9001 specifies requirements for quality management systems, including the monitoring, inspection, and testing a supplier needs to demonstrate for quality products. 170 countries, including China, are members of the International Organization for Standardization (ISO) and work with third-party certification bodies for standard compliance.
- All energy generation facilities come with risk, including coal and nuclear facilities. It is standard practice for facilities to have an Emergency Response Plan in place to deal with an accident or injury. Energy storage facilities operate in the same manner and have protocol for fire or safety people to follow.
- In the unlikely event of a fire, the main goal of first responders will be thermal management and containing the extent of the fire from a safe distance. Battery fires do not present extra toxicity risks beyond that of structural or plastics fires and first responders may use standard Personal Protective Equipment (PPE) including Self Contained Breathing Apparatus (SCBA).
  - No unique or specialized apparatus would be required to address it. Normal firefighting gear (i.e., coat, pants, boots, helmet, balaclava, and gloves, and self-contained breathing apparatuses if necessary for toxic gases which are typically present with any structural fire) will be sufficient PPE for first responders.