

What is Energy Storage as a Service (ESaaS)?

ESaaS is a model customized for business owners who require power during grid outages or want to create utility bill savings but do not require a full microgrid solution.

This approach reduces upfront capital expenditure and shifts the burden of energy and maintenance to the service provider, allowing businesses to focus on their own core activities.

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Why is Energy Storage Important?

A battery energy storage system (BESS) creates a strategic advantage for commercial and industrial customers by turning energy into a controllable business asset. It enables smarter energy use, allowing companies to lower operating costs, avoid infrastructure constraints, and maintain activity during grid disruptions. For businesses expanding operations, adding EV charging, or pursuing ESG goals, a BESS supports growth without compromising reliability or financial performance. It also positions the organization to participate in emerging energy markets and incentives, making the site more resilient, future proof, and economically efficient.

Why Storage as a Service?

Energy Storage as a Service (ESaaS) provides commercial and industrial customers with all the benefits of on-site battery storage—without the complexity, risk, or capital outlay associated with ownership. Instead of investing in and managing a battery system themselves, customers receive a fully managed solution through a long-term service agreement. This approach offers a faster, lower-risk path to energy savings, resiliency, and sustainability.

Key Benefits of ESaaS Compared to Owning and Operating a BESS:

No upfront capital investment - Preserve cash and avoid tying up capital in non-core infrastructure.

Performance-based model - Pay only for delivered value (e.g., demand charge reduction, arbitrage savings and backup power), not for equipment.

Avoid operational risk - All maintenance, monitoring and system performance are handled by experienced professionals.

Faster deployment - Skip lengthy internal procurement, engineering, and approval processes.

Technology flexibility - The service provider absorbs technology risk and ensures the system remain optimized over time.

Improved financial predictability - Performance-based pricing simplifies budgeting and eliminates unexpected O&M costs.

Supports ESG goals - Accelerates decarbonization and energy efficiency targets without additional internal resources.

Power dependency is growing rapidly. The power grid continues to age and is underinvested. Severe weather events are increasing.

Power outages are becoming more common.

Benefits of Battery Energy Storage

A large **Battery Energy Storage System** offers a range of operational, financial, and strategic benefits for commercial and industrial (C&I) sites. These benefits include:

Energy Cost Reduction

- Demand Charge Management: A BESS can discharge during peak load periods to reduce demand charges, which often constitute a large portion of C&I electricity bills.
- Time-of-Use Arbitrage: Batteries can charge during off-peak hours (when electricity is cheaper) and discharge during peak periods to lower overall energy costs.

Resiliency and Reliability

- **Backup Power:** Can provide critical backup during outages to maintain operations and avoid revenue loss or equipment damage.
- Grid Independence: Can enhance ability to operate during grid instability or failures particularly valuable for sensitive operations or those in outage-prone regions.

Renewable Energy Optimization

- Solar + Storage Synergy: Stores excess solar generation during the day for use at night or during high-rate periods, improving solar utilization
- Firming Intermittent Resources: Smooths out variability of solar generation, ensuring consistent power availability.

Grid Services Revenue (where available)

- Demand Response Participation: Can earn revenue by reducing grid load during utility stress events.
- Frequency Regulation & Ancillary Services: Can participate in ISO/RTO markets to provide fastresponse services in some jurisdictions.

Electrification and Load Flexibility

- EV Charging Support: BESS can support electric vehicle charging to minimize the risk of overloading the site's grid connection.
- Load Shifting: Shifts flexible energy consumption to off-peak times, optimizing energy use patterns and reducing costs.

Deferred Infrastructure Upgrades

• May Avoids Costly Utility Upgrades: May delay or avoid the need to upgrade transformers, switchgear, or utility interconnection capacity due to increased on-site loads.

ESG and Sustainability Goals

- Carbon Reduction: When paired with renewables, batteries help reduce GHG emissions from grid energy consumption.
- Corporate Responsibility: Enhances brand image and meets stakeholder expectations for environmental stewardship.

