

# Battery Backup – Energy Storage Systems

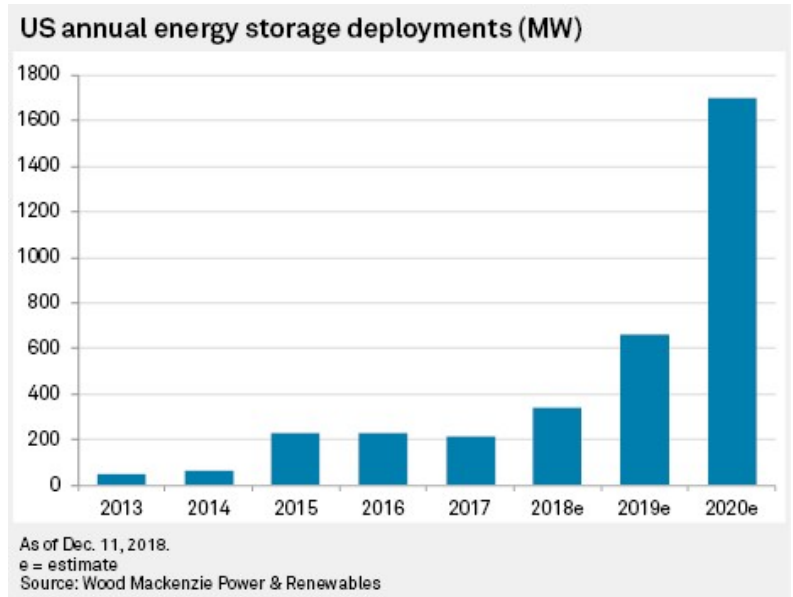
**Bottom Line Savings, Right Where it Matters**

## **What is an Energy Storage System?**

Energy storage is the capture of energy produced at a peak for later use. Energy storage can be done in many ways, most commonly by using Battery Backup systems.

Lithium-ion battery Backup energy storage is the technology of choice today. As it stands, li-ion batteries comprise 98.8% of the battery/energy storage market share.

According to “Technavio” Li-ion Battery Market for Energy Storage Systems in the US 2018-2022 to Post a CAGR of Over 34% | However innovative technologies are being aggressively investigated to offer energy storage systems alternative to Battery Backup systems.



## **Why do we need Energy Storage Systems?**

Renewable energy sources are, naturally, intermittent producing energy only when the sun is shining, or the wind is blowing. By storing the energy produced and delivering it on demand, these clean technologies can continue to power our grid and supply our energy needs in a reliable stream of power throughout the day.

## **Who benefits from Energy Storage Systems?**

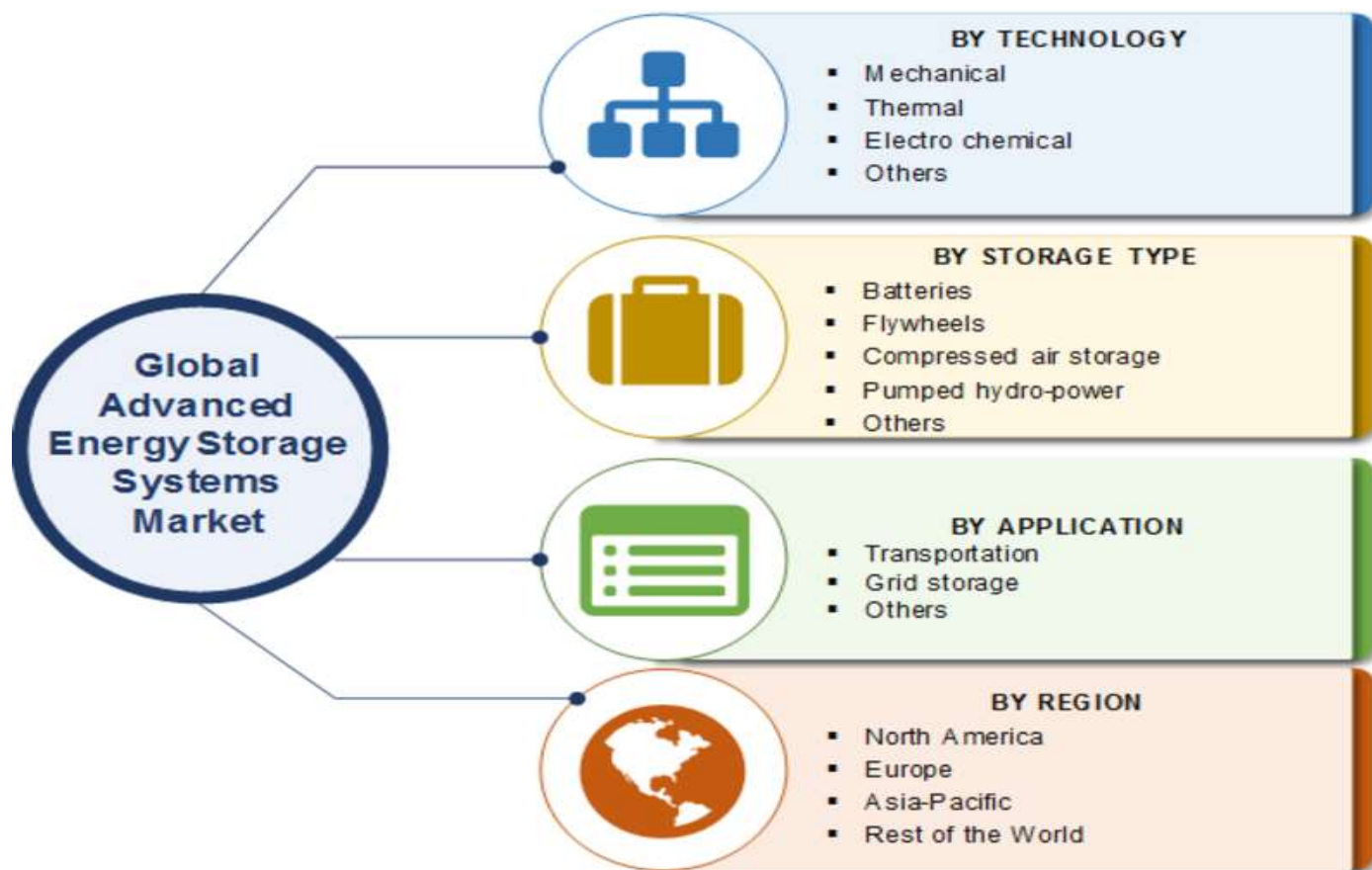
According to The Institute for Local Self-Reliance. Energy Storage Technologies can benefit each segment of the power system,



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including Utility Providers, Commercial Facilities, Industrial Complexes, and even residential homes.



### **What are the benefits of Energy Storage Systems?**

For Commercial & Industrial customers, Energy Storage Systems can reduce the overall energy bills by effectively responding to the following needs:

**1** Demand Charge Control Peak electricity needs. By discharging stored energy at the “high water mark” of usage, thus effectively reduces an organization’s demand charges

**2** **Avoid Peak Charges** Time-of-Use utility rates, by discharging stored energy at “peak rate” time-period of the day, thus avoiding these extra charges.

**3** **Avoid Service Interruption** Blackout due to weather, natural disasters or, grid overload. So, companies can avoid the loss generated due to shutting down or business interruption

### **Energy Storage Systems Best Design**

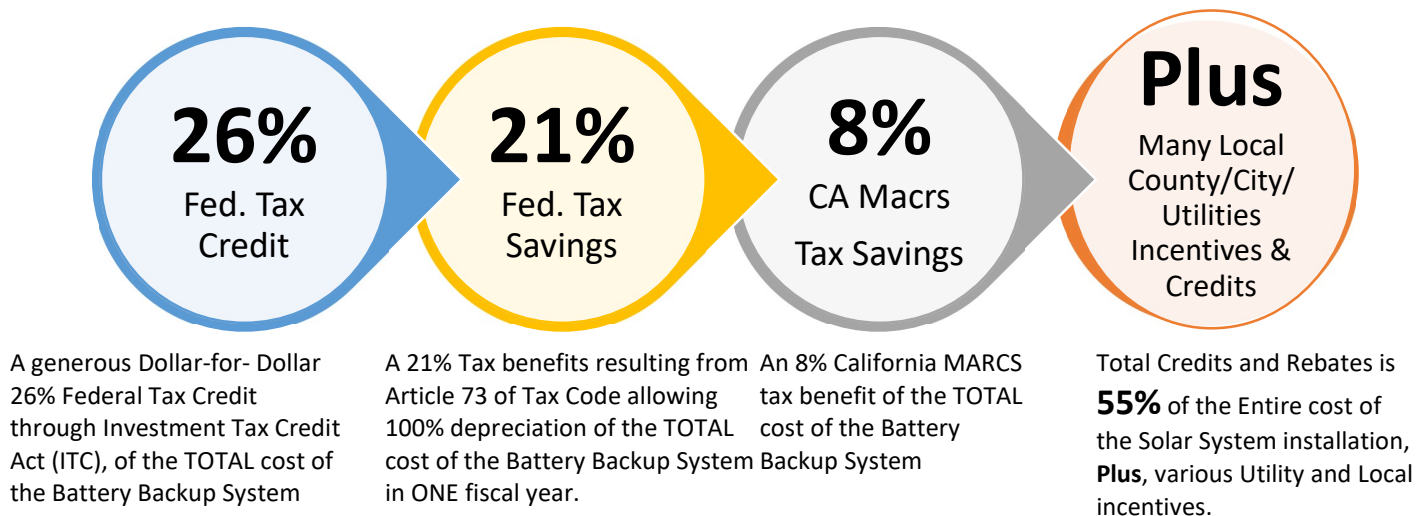
Installing an Energy Storage System to be completely Grid-Independent is relatively costly; therefore, it is only done by Utility companies or at locations where utility services are not

available. Almost all on-grid commercial and industrial facilities use Energy Storage Systems to mitigate one or more of the above-mentioned needs.

Best Energy Storage System design should carefully consider the client's need when calculating the size of the system and not the total amount of energy that has been used by the client. Offering the ability to be upgraded or expanded with more efficient products will extend the life of the system, and “future-proofs” the investment, as researchers continue to reach new efficiencies in Battery Backup and Energy Storage Systems.

### **Energy Storage Systems incentives**

Federal and many state governments adopted friendly policies and set mandates, enhanced with incentives, to ensure Energy Storage is a corner stone in a national Energy Plan



First Energy Systems can help Commercial & Industrial customers harness the benefits of Energy Storage Systems by installing reliable and field-tested solutions to ensure their success and maximize their year-round savings.

### **Flex-Buy 0% Interest Loans**

First Energy Systems' Flex-Buy financing gets your business 2 loans, for 100% of the Solar System cost to cover it ALL\*:

- **Loan # 1** is a Zero Interest loan for 55% of the system cost, due on May of the year following system installation (that is **AFTER** you get your Credits and rebates of 55% of the system cost). This Loan can also be restructured with up to 5 annual payments & No-Interest (fees apply) \*
- **Loan # 2** is an In-House, 20-Year loan with a Zero Interest rate for 45% of the system cost. Payment of which starts on May of the year following system installation (that is **AFTER** you get your Credits and rebates of 55% of the system cost) \*.

(\*) Subject to qualifications, terms & restrictions. Qualification for Loan #2 is automatic if the client qualifies for Loan #1

***First Energy Systems guarantees lowest cost of ownership by:***

## WHY CHOOSE US?

01



### **Innovative In - House Financing**

Including in-house long-term funding, NonProfit Organization project funding and a suite of leasing options to accommodate even the most challenging clients' need.

02



### **Extensive Industry - Wide Alliance**

Allows our clients to enjoy the unmatched experience of best of breed subcontractors, partners and, affiliates. Vertical Experience in specific critical operations is one among the many qualities we proudly offer.

03



### **Out of The Box Design**

Being technology agnostic, First Energy Systems out of the box design approach; permits exploring multiple technologies to offer the best solutions to meet owners' and investors' specific energy requirements.

04



### **Buy - Back Guarantee**

Our Unique, Industry Only, No-Risk, No-Questions asked, solar system BUY-BACK GUARANTEE program, further enhance our strength and set us apart from our competitions!



Car Dealerships



Hotels



Gas Stations



Convenient Stores



Supermarkets



Business Bldg.



Parking Lots



Chain Stores



Nonprofit Org

**Planning for the future starts today, and Time to Act is Now!**



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