

ADVANCE GRID STORAGE SOLUTION

Objective

- Energy storage has many potential benefits that could be prove valuable to electricity generators/ end use consumers including reduced cost of production of energy through arbitrage and reduced maintenance on hardware .
- Charzmax is developing for widespread implementation include compressed air / Sand energy storage, flywheel technology, advanced lithium ion batteries, advanced lead-acid batteries, and a handful of other novel battery chemistries and battery solutions.

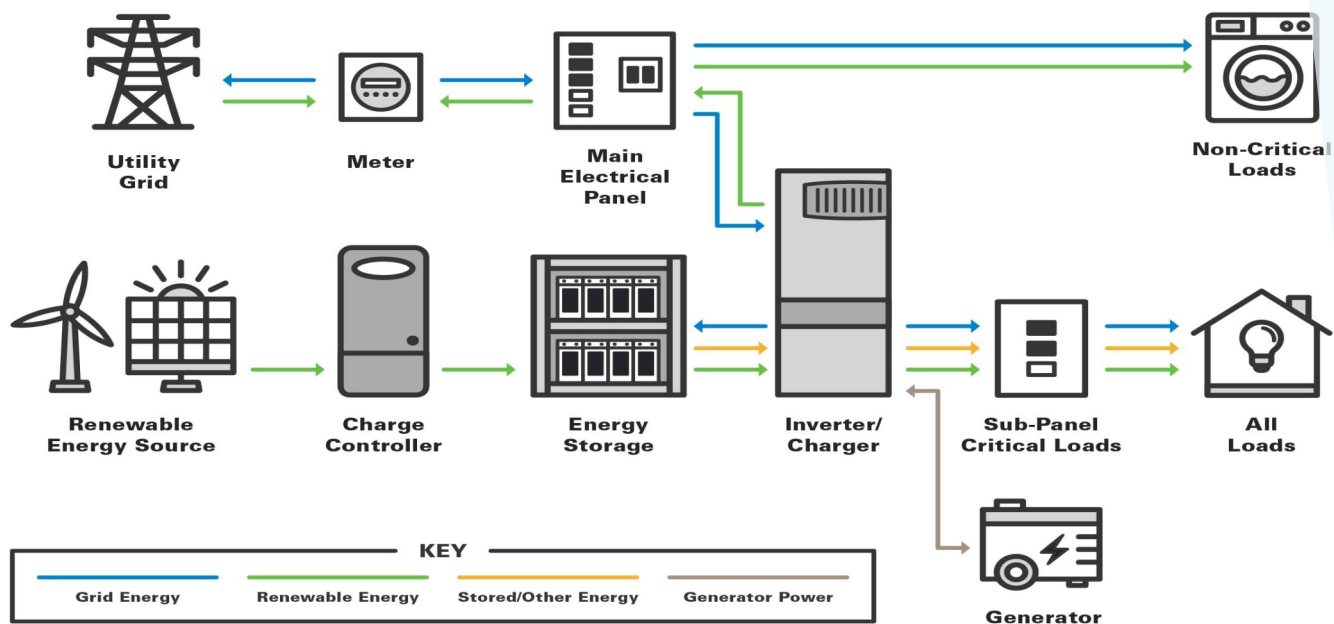
What is Grid storage

- Grid energy storage (also called large-scale energy storage) is a collection of methods used for energy storage on a large scale within an electrical power grid.
- Electrical energy is stored during times when electricity is plentiful and inexpensive (especially from intermittent power sources such as renewable electricity from wind power, tidal power and solar power) or when demand is low, and later returned to the grid when demand is high, and electricity prices tend to be higher.

Our Solution



Our Solution



Cost benefit Factors

Capital cost or plant financial carrying charges

- Storage System footprint and space requirements (Energy and Power density).
 - BESS (batteries, power converters, etc.)
 - Facility infrastructure (communications and control, environmental control, grid interconnection, etc.)
- Total operating cost:
 - Cost for charging the system
 - Labor associated with plant operation
 - Plant maintenance
 - Replacement and repair cost
 - Decommissioning and disposal cost

Energy Arbitrage....

Flexible Peaking Resource/Resource Adequacy....

Frequency Regulation. ...

Reserve Capacity (Spin/Non-Spin) ...

Voltage Support. ...

Black Start. ...

Transmission & Distribution Deferra

Our Portfolios

Class	Group A	Group B
Class1	25 kW	50kW
Class 2	50kW	100kW
Class 3	75kW	250 kW

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