ENERGY SOLUTIONS

Case 5

MAKE THE MOST RETURN OF YOUR INVESTMENT

GRID SERVICES WITH OR WITHOUT RENEWABLE ENERGY

Electricity must be produced at the same time it is consumed. As the share of volatile renewable energy increases, there is a greater demand for services that stabilize either the demand or the supply. In many countries such as the UK or US, these services are highly lucrative, leading to a big uptake of grid-scale energy storage. Furthermore, renewable energy sources, such as solar and wind, often produce more energy than can be used or stored during periods of low demand. This excess energy is frequently wasted or „curtailed," leading to lost revenue opportunities and reduced efficiency. Battery Energy Storage Systems (BESS), such as MC Cube ESS provide a solution by storing excess renewable energy for later use or for sale during peak demand, maximizing the value and utilization of renewable resources.

THE PROBLEM

Renewable energy plants face a challenge when they produce more energy than the grid or facility can handle, particularly during periods of low demand. This forces the plant to curtail, or limit, energy production, resulting in lost revenue and underutilization of valuable renewable resources.

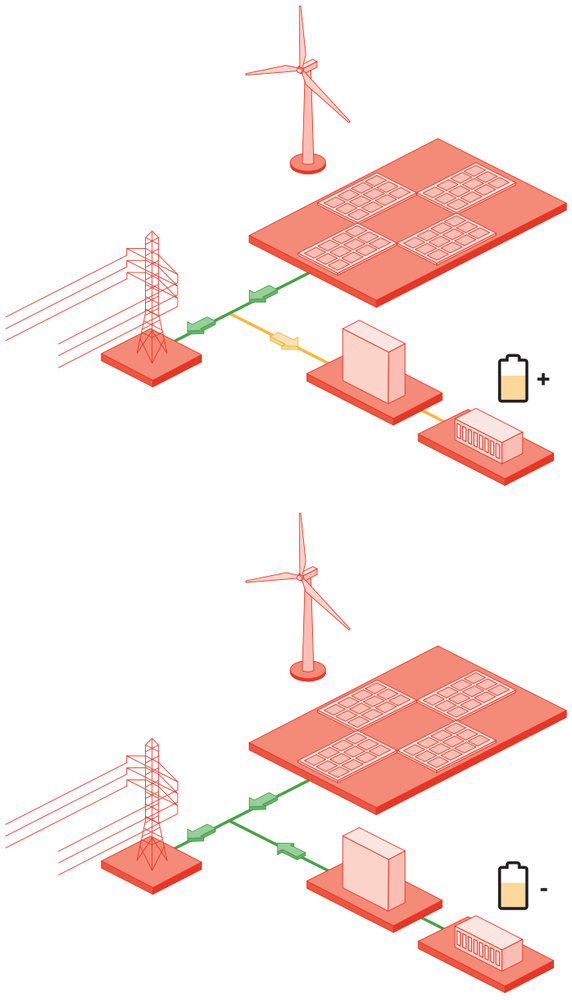
Example: A solar farm generates excess energy during the middle of the day when demand is low. Without storage, this energy is curtailed, reducing the farm's profitability. The energy that could have been stored and used later or sold is instead wasted.

OUR SOLUTION

By integrating a BESS with renewable energy sources, excess energy can be stored and used during periods of high demand or sold back to the grid at peak pricing. This allows businesses to maximize the revenue potential of their renewable assets and ensure that no energy is wasted.

OPERATION OF THE BATTERY ENERGY STORAGE SYSTEM (BESS)

Protect your production with uninterrupted power



Step 1

ENERGY STORAGE DURING CURTAILMENT

- The BESS stores surplus energy generated during periods of low demand, preventing curtailment and making full use of the energy produced.

Step 2

ENERGY RELEASE DURING PEAK DEMAND

- The stored energy can be used to power operations or sold back to the grid when demand and prices are higher, creating a new revenue stream.

SUMMARY

- BESS can also provide grid balancing services, such as frequency regulation or voltage support, further increasing revenue potential.

Maximize the value of your renewable energy and prevent waste with our BESS solutions. Store excess energy and sell it when demand is high. Contact us and request more information or a personalized consultation.

GET IN CONTACT

KEY BENEFITS

PREVENT ENERGY WASTE

Store excess renewable energy to avoid curtailment and maximize energy utilization.

INCREASE REVENUE

Sell stored energy during periods of high demand and peak pricing, creating additional revenue streams.

OPTIMIZE RENEWABLE EFFICIENCY

Ensure renewable energy systems operate at full capacity, reducing downtime and increasing return on investment.

SUPPORT GRID STABILITY

Provide valuable grid services like frequency regulation and voltage support, improving grid reliability and generating additional income.

REAL WORLD EXAMPLE: BESS CO-LOCATED WITH PV

A solar farm in faced regular curtailment during the middle of the day when energy demand was low.

The developer installed a 4h BESS to capture all the excess and inject it back into the grid.

THE RESULTS

0% curtailment

Multiplied revenues as site can also provide grid services such as capacity market and frequency regulation