

Benefits of Battery for Grid operations

Battery contributes to grid operation by charge/ discharge at appropriate timing



The features of SCiB™

Low Temperature Operation

Usable in extremely cold enviroments(-30°C)

Rapid Recharging

Recharges in approx. 6 minutes

Safe

Using safer material (LTO)



Excellent features are realized by using Lithium Titanate Oxide (LTO) in its anode

Long Life

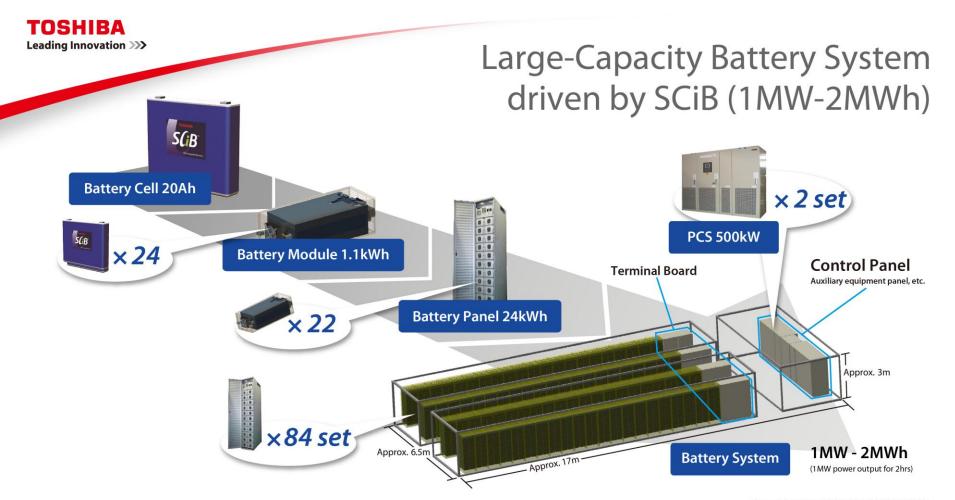
Over 6,000 chargedischarge cycles

High Effective Capacity

High amount of actual usable energy over wide range of SOC

High input & Output

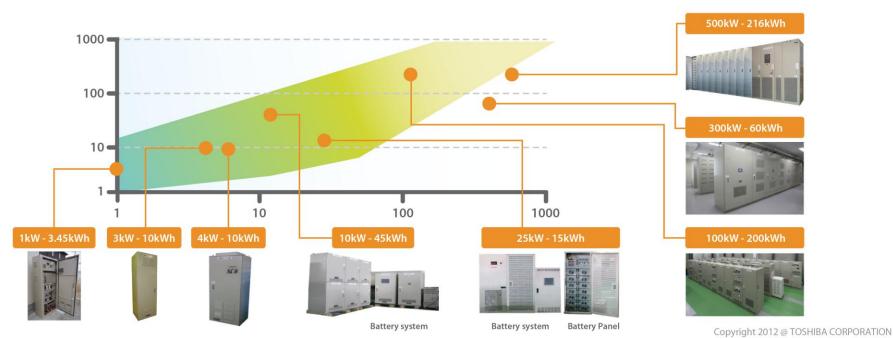
Usable with high current





The Battery Energy Storage Systems using SCiB™

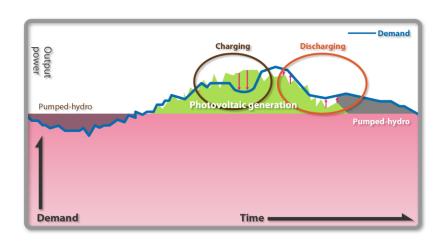
Battery output (kW) and capacity (kWh) can be chosen for the purpose





Peak-Shedding

Maintaining the demand-supply balance via Battery Control

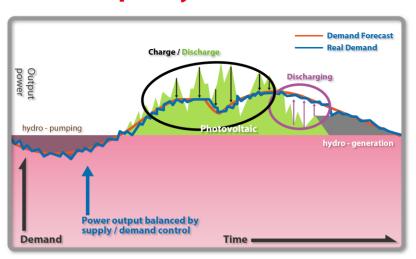


Load leveling with battery charging during the low demand and discharging during high demand

- Improvement of availability of highly efficient thermal power generators (CO₂ reduction)
- Efficient operation of thermal power generators (CO₂ reduction)
- Investment reduction of generation facilities of peak-demand
- Investment reduction of electricity access, distribution, and transmission facilities for demand



Regulation and Reserved Power Capacity



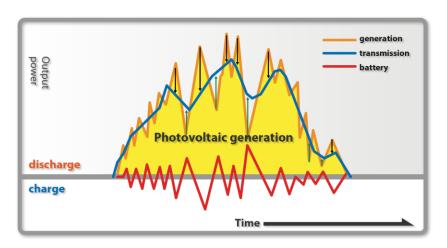
Charging or Discharging to balance demand and supply in case of the insufficient capacity of thermal power generation

- Stable operation by balancing supply and demand on the grid
- Reducing the adverse effect of excessive renewable energy resource
- Efficient operation of thermal power generators (CO₂ reduction)



Controlling Power Quality

Fluctuation suppression of output power via battery control



Controlling Power Quality in grid with plentiful Renewable Energy

Offsetting renewable energy's fluctuation with battery charging/discharging

- Tie line flow control of micro grid
- Reducing the adverse effect of fluctuations on distribution and transmission grid
- Compensating the difference between actual and forecasted demand and supply in the micro grid.
- Standalone operations and power loss compensation