Battery System Designs & Applications:

1. Grid Backup
2. Peak Load Shaving
3. Time of Use
Grid Backup

Battery Backup to protect critical loads from grid outage.

Uninterruptable Power Supply.
Grid Backup
(Normal Operation)
Grid Backup
(Grid Outage)

Main Loads

Critical Loads
Grid Backup
(Extended Grid Outage)

Main Loads

Critical Loads
Peak Load Shaving

Reduce Demand Charges by limiting power used from the grid.
Peak Load Shaving

Supplied by Battery + Solar

Supplied by Grid

Full load

Load Shave Amps (setpoint)

No load
EXAMPLE:
Load Shave Amps = 30

45 Amp Load:
- 30 Amps from Grid
- 15 Amps from Battery
Peak Load Shaving
(Peak loads, grid powers up to X amps, battery powers the rest)

EXAMPLE:
Load Shave Amps = 30

15 Amp Load:
• 30 Amps from Grid
• 15 Amps to Recharge Battery
Peak Load Shaving
(Peak loads, grid powers up to X amps, battery powers the rest)

EXAMPLE:
Load Shave Amps = 30

15 Amp Load:
• 15 Amps from Grid
• Battery standing by @ 100%
Time-Of-Use

Reduce energy costs by avoiding Peak utility rates.

Charge the battery during off-peak rates, then power the loads from the battery instead of the grid during peak rates.
Time-Of-Use
(Off-Peak Rate)

Charge battery during off peak rates.
(i.e.: $0.08 / kWh)

Iron Edison Battery Company          (720) 432-6433          www.IronEdison.com
Battery powers loads instead of the grid during peak rates.

$0.08 / kWh Off-Peak
$0.18 / kWh Peak
$0.10 / kWh SAVINGS
Time-Of-Use
(Avoid Peak Energy Rates)

BONUS:
Battery Backup in the event of a grid outage.