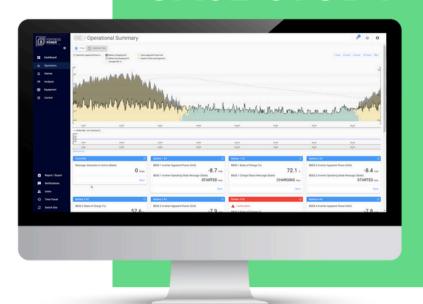


CASE STUDY

KEYSTONE EMS

MAXIMIZING PROJECT RETURNS



PEAK SHAVING/DEMAND CHARGE MITIGATION



- 1 Building load spikes frequently throughout day as pumps & other equipment are run
- Keystone EMS monitors load and automatically discharges battery if load exceeds a set threshold
- As solar production ramps up, utility consumption drops towards zero, building load is covered by PV, excess power is sold to grid, and battery begins to recharge from PV

ENERGY SERVICES (1)



(1) Includes virtual power plant and demand response capabilities

- Solar generation (yellow) covers site load (black line), with remainder (purple) sold to grid
- At 7pm, local utility (SCE) initiates demand response event; battery automatically starts discharging and selling power back to grid
- 3 Dotted blue line shows battery state of charge (% in right y-axis)
- Demand response event ends, power from the grid begins to recharge battery

- Purple: Power Export to Utility
- Pink: Utility Generation
- ---- **Dotted Line:** Battery State of Charge %

- Yellow: Solar PV Generation
- Gray: Battery Charging
- Black Line: Power Load

Green: Battery Discharging