ALLEN ENERGY

ENERGY STORAGE SYSTEMS & MICROGRIDS

UTILITY GRADE BESS SOLUTIONS

ALLEN ENERGY

BEST IN CLASS TECHNOLOGY SOLUTION FOR:

PEAK LOAD SHAVING:

DISCHARGE AT TIMES OF PEAK LOAD TO REDUCE DEMANDS ON DISTRIBUTION AND TRANSMISSION INFRASTRUCTURE

MARKET DEMAND RESPONSE:

MAINTAIN GRID STABILITY BY RAPIDLY CHANGING CHARGE OR DISCHARGE POWER IN RESPONSE TO CHANGES IN GRID FREQUENCY.

RENEWABLE ENERGY SMOOTHING:

SMOOTH OUT INTERMITTENCY OF RENEWABLES (WIND/SOLAR) BY INCREASING LOAD (CHARGING) DURING OFF PEAK & POWERING LOAD (DISCHARGING) DURING HIGH PEAK.

VIRTUAL POWER PLANT:

ABILITY TO AGGREGATE MULTIPLE ENERGY ASSETS (DER'S) .

MICROGRID:

BUILD A LOCALIZED GRID THAT CAN DISCONNECT FROM THE MAIN POWER GRID

DEFER DISTRIBUTION (T&D) INVESTMENT:

POSTPONE COSTLY LOCAL GRID INFASTRUCTURE UPGRADES BY SUPPLYING POWER AT DISTRIBUTED LOCATIONS. THIS ALLOS THE DEFERRAL OF UPGRADING AGING DISTRIBUTION INFASTRUCTURE AS A **NON-WIRE ALTERNATIVE.**

VOLTAGE SUPPORT/POWER FACTOR CORRECTION:

INTRODUCE AND ABSORB REACTIVE POWER FROM THE INVERTERS TO MAINTAIN LOCAL GRID VOLTAGE LEVELS.

FREQUENCY REGULATION:

PROVIDE SERVICE TO THE GRID IN RESPONSE TO LOAD DEMAND

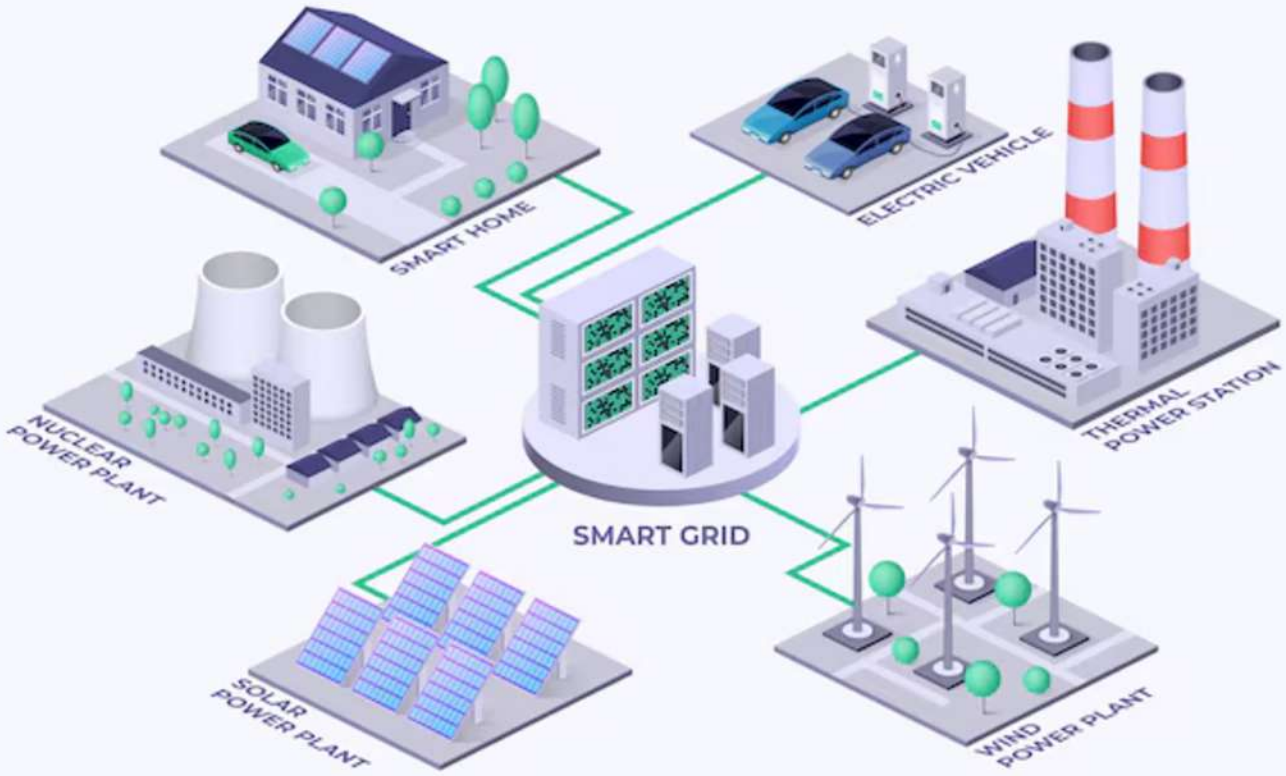
SUPPORT INCREASED EV CHARGING:

BUILD A LOCALIZED GRID SUPPORT FOR INCREASED EV CHARGING DEMAND

POWERING THE FUTURE OF ENERGY

ALLEN ENERGY

- **HOME ENERGY STORAGE**
- **UPS/BACKUP POWER**
- **PHOTOVOLTAIC SYSTEM**
- **INTELLIGENT SOFTWARE**
- **EV CHARGING**
- **GRID ENERGY STORAGE**

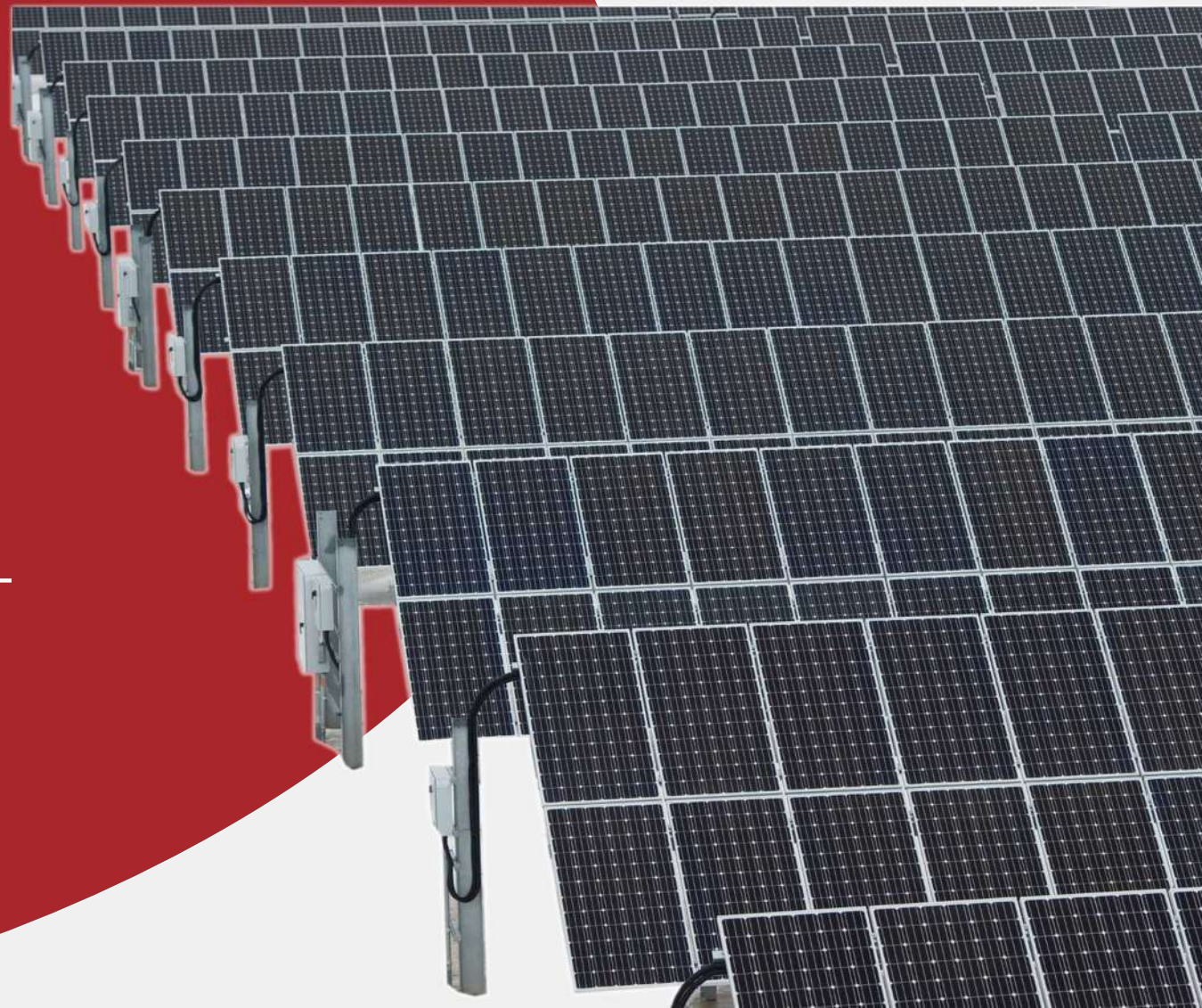


WHAT IS A BATTERY ENERGY STORAGE SYSTEM?

BESS IS AN ELECTRIC CHEMICAL STORAGE SYSTEM THAT CAPTURES ENERGY PRODUCED AT ONE TIME FROM SOURCES LIKE SOLAR, WIND GENERATION AND/OR A UTILITY GRID AND USES IT AT A LATER TIME FOR A SPECIFIC USE CASE AND PURPOSE.

WHAT IS A MICROGRID?

MICROGRID IS A GROUP OF INTERCONNECTED LOADS AND DISTRIBUTED ENERGY RESOURCES WITHIN A CLEARLY DEFINED ELECTRICAL BOUNDRY. IT CAN BE CONNECTED TO A CENTRAL NATIONAL GRID BUT IS ABLE TO FUNCTION INDEPENDENTLY AND OPERATE AS A VIRTUAL POWER PLANT.



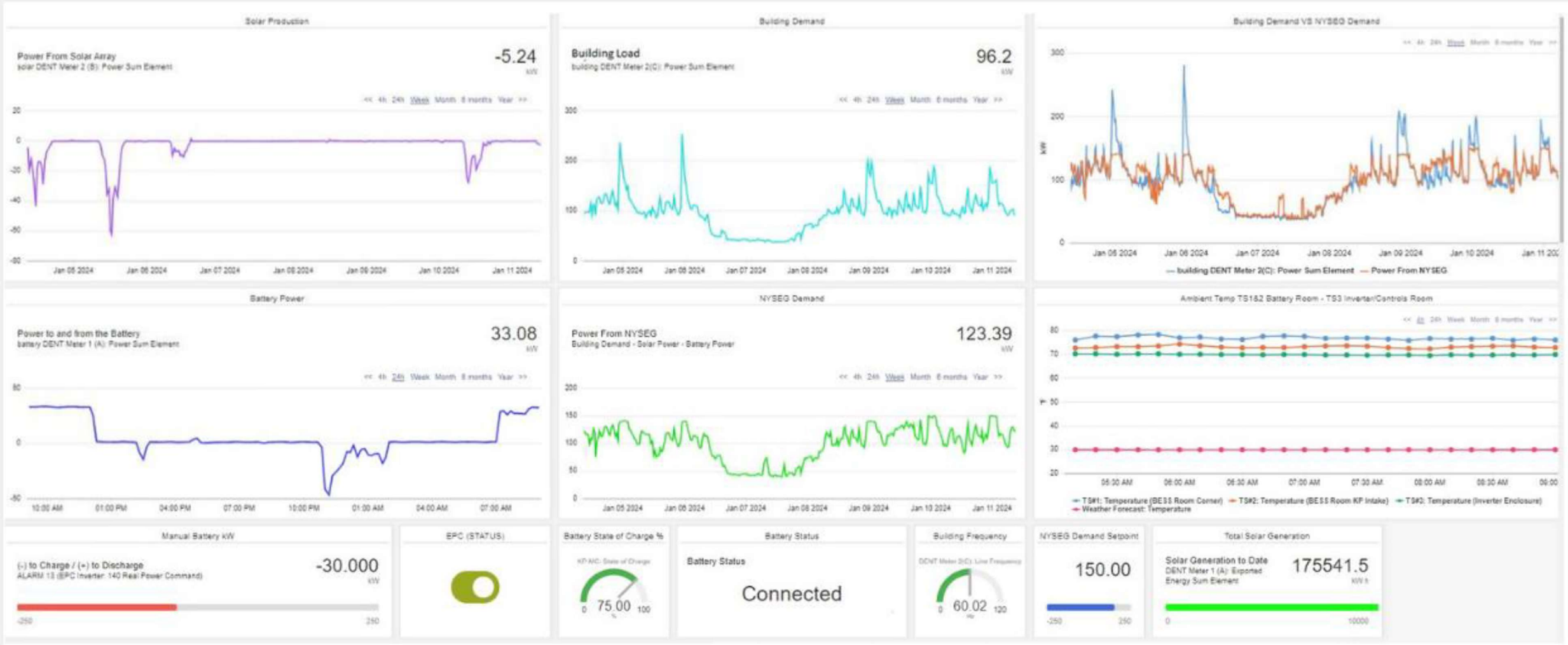
BENEFITS OF ENERGY STORAGE SYSTEM (ESS)

ALLOWS FOR:

- PEAK SHAVING
- DEMAND AND TRANSMISSION REDUCTIONS
    - ADDITIONAL CHARGES ON UTILITY BILL
- HANDLES INCREASED LOAD ON SITE
    - EV CHARGERS
    - GROUND SUPPORT EQUIPMENT
    - INCREASED LOAD → UTILITY SERVICE WORK → $$$
    - ADDITIONAL REVENUE STREAMS
        - DEMAND RESPONSE / GRADE STABILITY PROGRAMS
- RESILIENCY
- BUNDLE WITH SOLAR
    - HANDLES BASE LOAD
        - INCREASED UTILITY SAVINGS
        - CARBON REDUCATION GOALS

ALLEN ENERGY

BESS CONTROLLER DASHBOARD

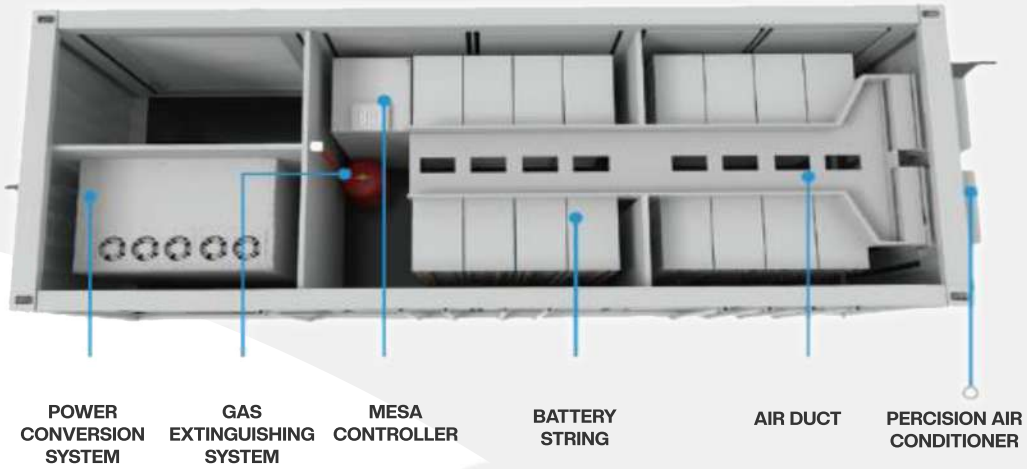


VISUALIZING **BESS** USAGE

BUILT FOR SCALE

PRE-ASSEMBLED AND PRE-TESTED IN ONE ENCLOSURE

- **INDCLUDES BATTERY MODULES**
- **BI-DIRECTIONAL INVERTERS (USA MADE OPTION)**
- **ISOLATION TRANSFORMER**
- **THERMAL MANAGEMENT SYSTEM & AC MAIN BREAKER WITH CONTROL SYSTEM**
- **CAN SUPPORT ANY VOLTAGE INTERCONNECTION**
- **BLACK START/GRID CONNECTED/OFF GRID CAPEABLE**
- **SOFTWARE/HARDWARE FULLY SECURE**
- **ANALYTICS**
- **AC AND DC COUPLED CAPEABLE**
- **UL9540, UL9540A, UL1741SB**



THANK YOU

www.AllenEnergy.com
info@allenenergy.com

+1-407-240-0909

8815 Conroy-Windermere Rd.
STE 223
Orlando, FL 32835 USA