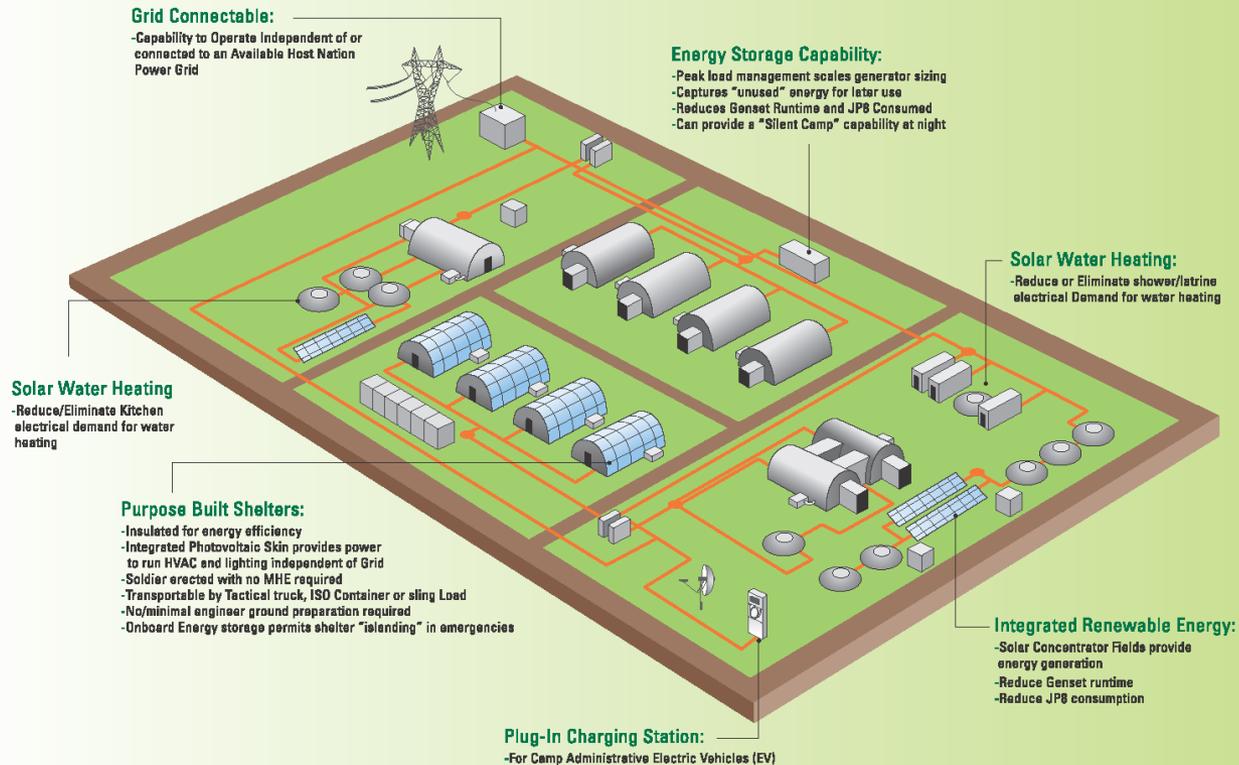


US ARMY LOGISTICS INNOVATION AGENCY - THE FIELD OPERATING AGENCY OF THE ARMY G4

# SMART AND GREEN ENERGY (SAGE) FOR BASE CAMPS

## OPERATIONAL BASE CAMP SMART MICRO-GRID



### SAGE PROVIDES:

- A holistic energy generation/storage/management solution saving up to 60% of contingency base fuel consumption depending on configuration
- Enables Camp Mayors to better manage and control camp power operations, reduce JP-8 consumption and incorporate renewable power sources
- Energy efficient modular structures provide flexibility in locating/moving base camps to accommodate tactical and operational needs
- Common international electrical standards assist contracting and sourcing components quickly
- Improved Quality-of-Life for the Soldier



### GOALS:

Reduce the quantity of JP8 needed for electrical power generation for contingency bases by employing novel utility smart micro-grid technologies, energy efficient modular structures and alternative power sources

Demonstrate and validate a smart base camp micro-grid technical specification capable of reducing JP8 demand by ~30-60%

Address medium sized base camps (500-3000 men)

Employ off the shelf commercial grade utility hardware and open source control software in specification design

Enable construction by military engineers or LOGCAP like capability

### SUCCESS DEFINED:

Provide ARCENT a smart micro-grid design specification suitable for LOGCAP execution within 12 months

Provide technology spin offs and lessons learned opportunities to PM FSS, PM MEP and CERDEC

### SAGE DESIGN CHARACTERISTICS:

Commercial equipment rugged enough to support medium size FOB operations

Automated Smart Grid is easy to operate and maintain

Interoperable with the major common international electrical codes

Standardized interfaces and controls to provide scalability

Shelter design requires no MHE to assemble and is transportable by organic military equipment

Shelters require no special "ground preparation" to install

Energy storage capability provides up to 12 hours of "Silent Camp" capability (150 man camp only)