Army Power and Energy

Acting Deputy Assistant Secretary of the Army, Energy and Sustainability

Mr. Jack Surash P.E.

Installation Innovation Forum 2017
Association of Defense Communities

1 March 2017
Renewable and Alternative Energy Security Projects

80 MW at Yakima Training Center, WA
Microgrid-ready onsite generation, feeds the external grid

10 MW at Tooele Army Depot, UT
Microgrid-ready onsite generation, feeds the external grid

16 MW at JFDB Los Alamitos, CA
Access to onsite contingency generation through a microgrid

18 MW at Ft. Huachuca, AZ
Microgrid-ready onsite generation, feeds the external grid

50 MW at Schofield Barracks, HI
Access to onsite contingency generation through a microgrid

10 MW at Ft. Rucker, AL
Microgrid-ready onsite generation, feeds the external grid

13 MW at Ft. Benning 2, GA
Microgrid-ready onsite generation, feeds the external grid

30 MW at Ft. Stewart, GA
Microgrid-ready onsite generation, feeds the external grid

30 MW at Ft. Gordon, GA
Microgrid-ready onsite generation, feeds the external grid

10 MW at Ft. Huachuca, AZ
Access to onsite non-contingency generation

20 MW at Ft. Sill, OK
Access to onsite non-contingency generation through a microgrid

8.5 MW at Rock Island Arsenal, IL
Access to onsite contingency generation through a microgrid

8 MW at Redstone Arsenal, AL Solar
Access to onsite non-contingency generation

25 MW at Redstone Arsenal, AL CHP
Access to onsite contingency generation through a microgrid

60 MW at Ft. Drum, NY
Access to onsite contingency generation through a microgrid

-132 MW at Ft. Belvoir, VA
Microgrid-ready onsite generation, feeds the external grid

30 MW at Ft. Gordon, GA
Microgrid-ready onsite generation, feeds the external grid

20 MW at Ft. A.P. Hill, VA
Microgrid-ready onsite generation, feeds the external grid

Energy Security Key:

- Onsite Generation
- Onsite Storage
- Controls

Renewable and Alternative Technology Key:

- Solar
- Geothermal
- Biomass
- Natural Gas
- Wind
- Hydro
- CHP
- Controls
- Storage
- Battery
- "Islandable"

Installation Project Status:

Phase 1: Assessment
Phase 2: Validation
Phase 3: Contracts & Agreements
Phase 4: Construction
Phase 5: Operations & Support

As of 23 Feb 17
Third Party Energy Security Project: Fort Gordon, Georgia

Army outgrant of 270 acres at Fort Gordon

- Georgia Power owns, operates, and maintains 30 MWs of solar power, or about enough to power 4,300 homes per year
- Power flows off-base (through Army substation) to grid serving Fort Gordon and surrounding community
- Additional requirements for storage and microgrid would need to be scoped to “island” critical load in the event of a grid outage
Third Party Energy Security Project: Schofield Barracks, Hawaii

Army outgrant of 10 acres at Schofield Barracks

- Hawaiian Electric will construct, own, operate and maintain a 50 MW biofuel-capable power generation plant.

- During normal ops, power will flow off-base to grid serving Army and Oahu.

- During contingency ops, plant will provide 50 MW of “first call” and blackstart capability to three Army installations simultaneously; 5 days of fuel storage onsite at plant and 30 days of fuel storage on island.

- 50 MW of firm power is sufficient to meet 100% of peak electricity requirements at Schofield Barracks, Wheeler Army Airfield, and Field Station Kunia.

UNCLASSIFIED

Assistant Secretary of the Army (Installations, Energy & Environment)
Third Party Energy Security Project: Los Alamitos, California

Army proposed outgrant of 115 acres at JFTB Los Alamitos

- Developer would construct, own, operate and maintain 16 MWs of solar power, energy storage, and microgrid components
- During normal ops, the developer sells power to the grid
- During contingency ops, the developer would provide islandable power for critical loads for min 7 – max 30 days
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