



OFFICE OF ENERGY INITIATIVES

Securing Army installations with *energy*
that is *clean*, *reliable* and *affordable*

DOE Energy Exchange

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www.oei.army.mil

Assistant Secretary of the Army (Installations, Energy & Environment)

UNCLASSIFIED



Enhancing Energy Security



Acts of Man



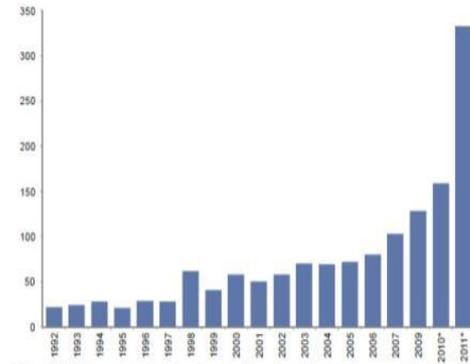
The scene of a shooting and oil spill at a San Jose PG&E substation on April 16, 2013 (CBS)

Acts of Nature

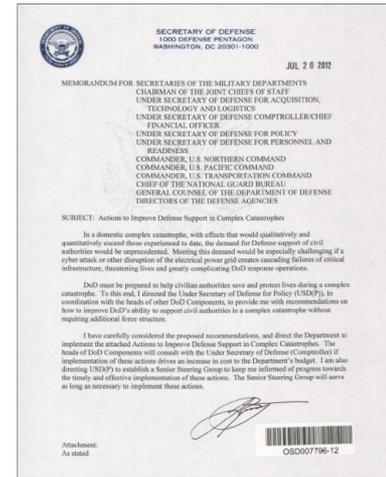


High-voltage power lines with grid connection to Redstone Arsenal devastated by tornado on April 26, 2011. (TVA)

Securing the Homeland



Note: * NERC equivalent data estimated based on the trends seen in the Eaton Blackout tracker for number of outages affecting over 50,000 people. Source: NERC, Eaton Blackout Tracker, Goldman Sachs Research estimates.



Army Installations Are Dependent on an Electrical Grid Increasingly Subject to Extended Outages and Decreased Reliability

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Office of Energy Initiatives



The Office of Energy Initiatives (OEI) was established by the Secretary of the Army with the mission to:

- Serve as the central management office for the development, implementation and oversight of all **privately financed, large-scale** renewable and alternative energy projects
- Be the proponent for projects **equal to or greater than 10 MW** and work closely with installations to support 1-10 MW opportunities
- Use existing DOD land-use and third-party financing authorities to develop solar, wind, biomass and geothermal projects



Fort Drum, New York



Fort Huachuca, Arizona

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Key Authorities for Project Development



The OEI leverages existing key Congressional authorities to meet renewable energy goals:

- **Contracts for energy or fuel for military installations (10 USC 2922a)**
 - Authorizes contracts for up to 30 years for the provision of energy production facilities and the purchase of energy from such facilities
 - Requires Office of the Secretary of Defense approval
- **Far Part 41 Acquisition of Utility Services**
 - Authorizes the Department of Defense (DOD) to acquire utility services for military facilities for terms up to 10 years
 - Executable by delegated authorities
- **Leases: non-excess property of military departments (10 USC 2667)**
 - Authorizes lease of available non-excess property to promote the national defense or public interest
 - Lease term can be longer than five years within the useful life of the energy production facility
 - Provides for payment in cash or in-kind at fair market value

Procurement Partners



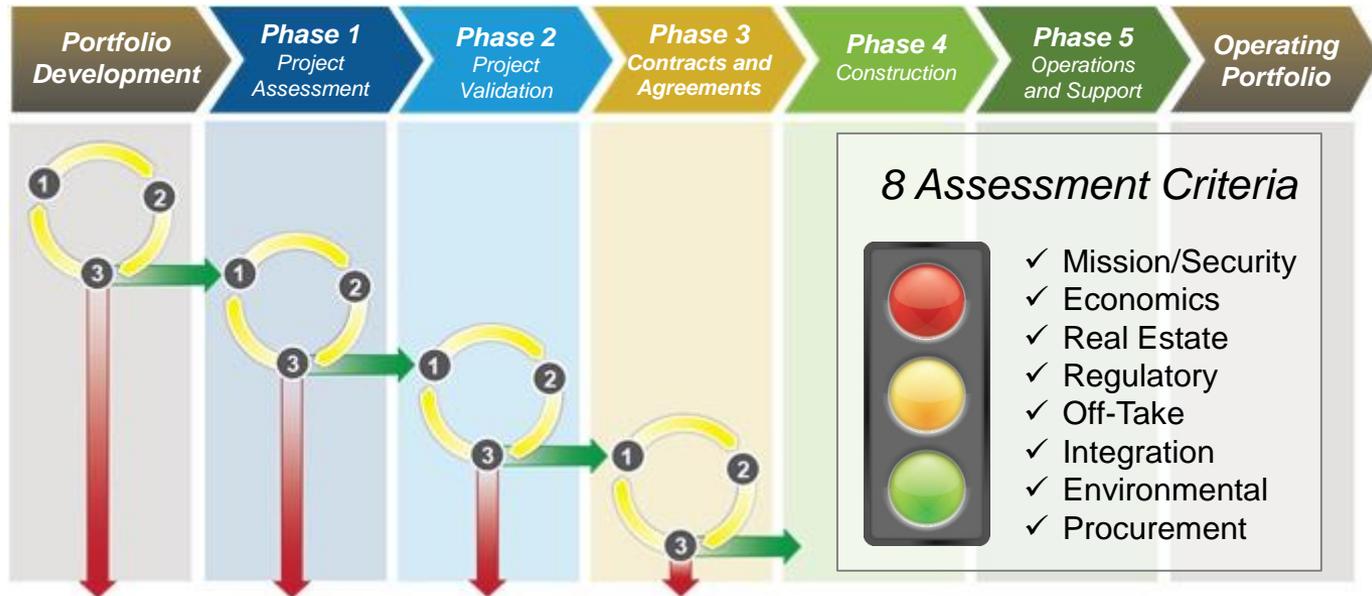
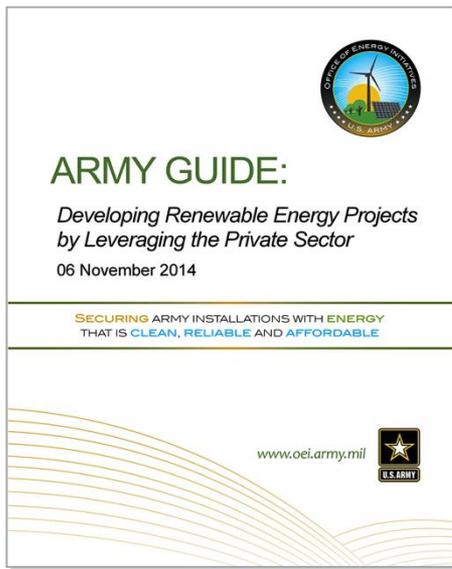
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Iterative Renewable Energy Project Development



- The Army Guide outlines approach and process for project development
 - The development and due diligence process can be used across each of the early phases of the lifecycle
 - Projects should be analyzed using the 8 Assessment Criteria and evaluated for viability
 - Projects with sufficient viability to justify increased investment should be moved forward; those that are not viable should be suspended

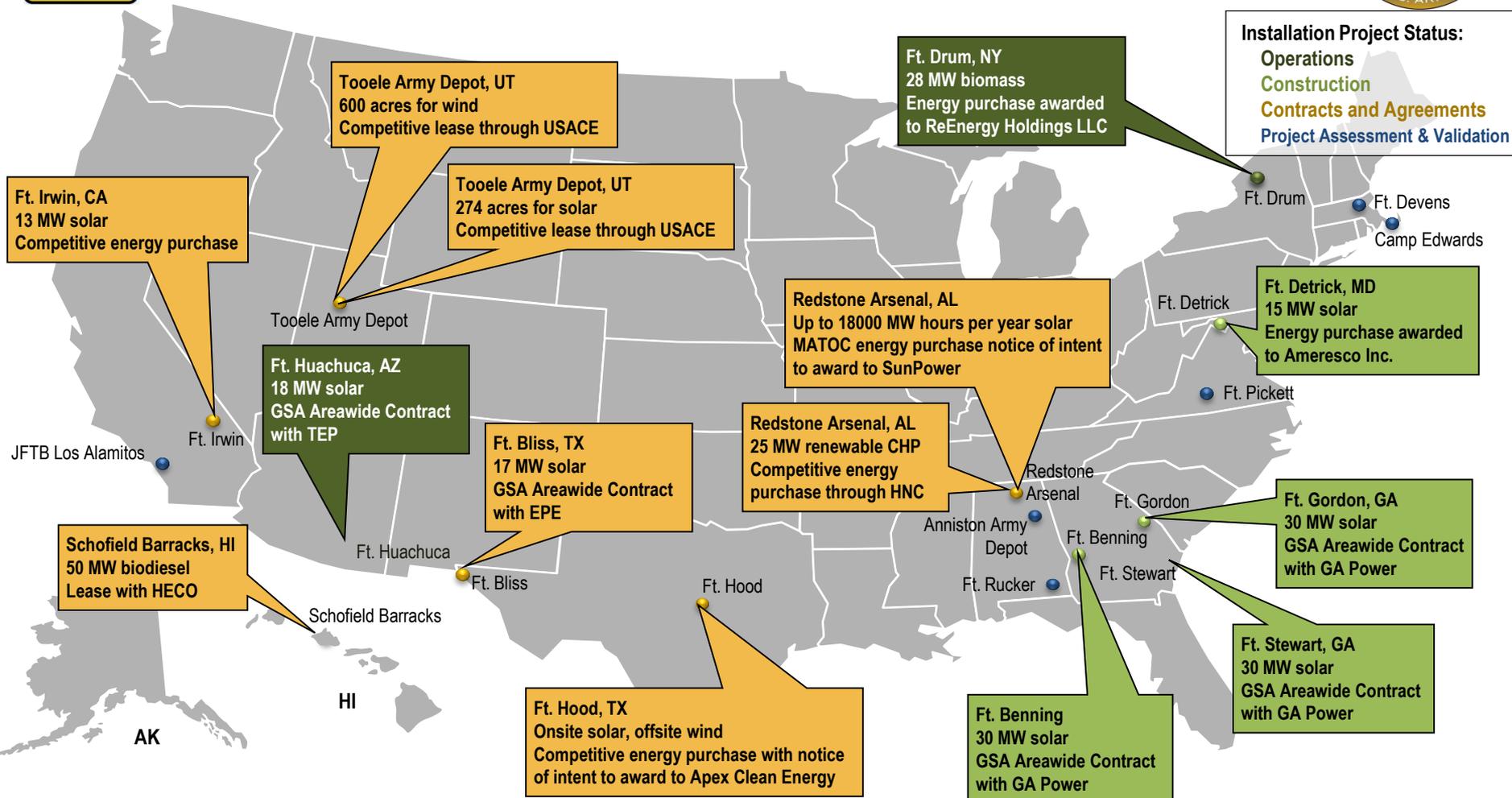


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OEI Renewable Energy Projects



Contributing ~35% Towards Army's 1 GW Goal

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Fort Huachuca, Arizona



- Large-scale renewable energy solar project to supply approximately 18-megawatts (MW) alternating current.
- Generates an equivalent of ~25 percent of Fort Huachuca's annual electricity requirements.
- Project owned, operated and maintained by Tucson Electric Power and is connected to the Fort Huachuca substation.
- Completed testing in December 2014 and is fully on-line.
- Project includes more than 57,000 solar panels on a 156 acre easement for 30 years.
- Power is purchased through an existing 10 year General Services Administration Area Wide Contract.





Fort Drum, New York



- Existing coal fired generating facility converted to Biomass
- 100% of the installation's on-site electricity requirements via direct intertie connections to both of Fort Drum's substations, (~28 MW)
- Intertie connections enable Fort Drum to maintain mission critical operations in the event of a system-wide outage
- Contract Award to ReEnergy Holdings LLC in September 2014
- 20-year Power Purchase Agreement Contract
- Fort Drum remains connected to the utility grid, which serves as a reliable and trusted source of power
- Total project capacity of 60 MW, providing excess electricity to utility grid





Wrap Up



- The Army is committed to partnering with industry and utilities on renewable energy projects that will strengthen the resiliency of Army installations through increased security and sustainability.
- By improving the energy resiliency and security of Army installations, we can continue to conduct critical national security missions and support our troops both at home and abroad.
- These renewable energy projects are contributing to the Army's commitment to the President to deploy one gigawatt of renewable energy at Army installations by 2025.



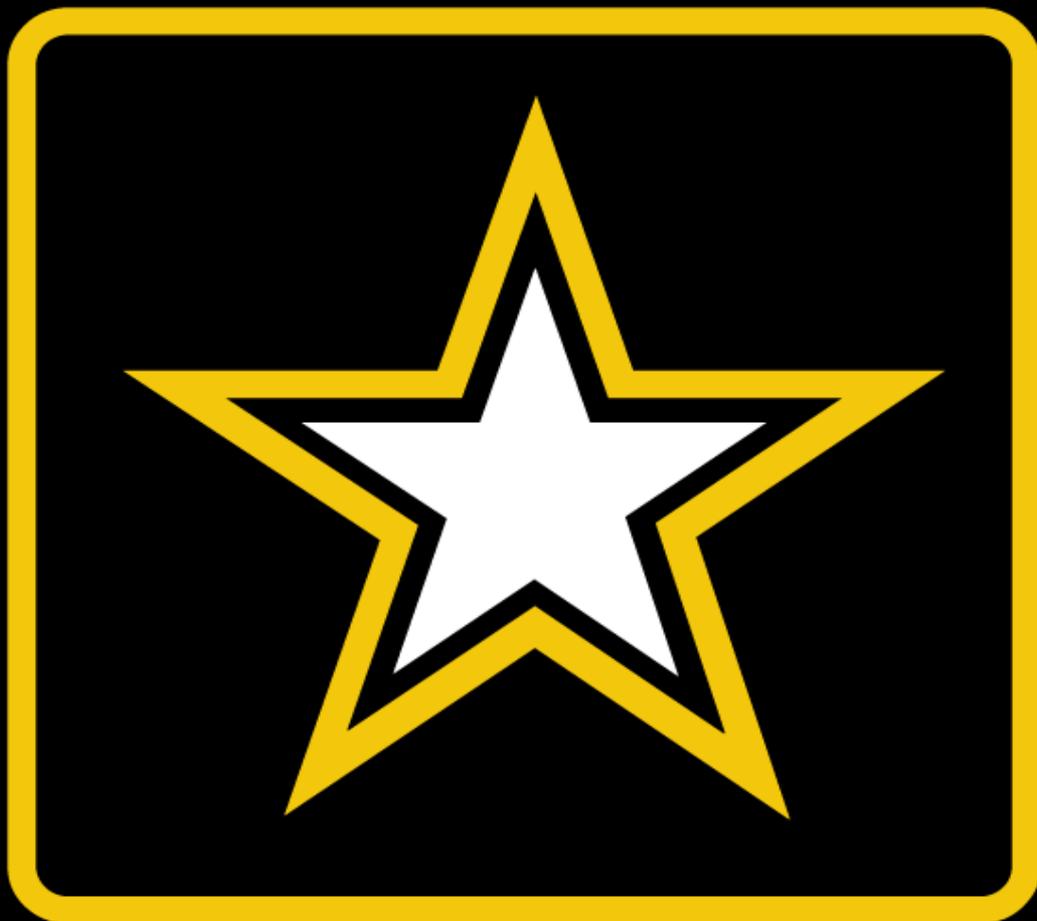
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