

# Army Energy Initiatives

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August 2011



US Army Corps of Engineers  
**BUILDING STRONG**®

# Overview

## Army Energy Initiatives

- Energy Security & Sustainability
- Net Zero
- Energy Initiative Office (EIO) Task Force

## Huntsville Center Support

- Energy Programs
- Doing Business with Us



# Energy Security

Energy security for the Army means preventing loss of access to power and fuel sources (**surety**), accessing alternative and renewable energy sources available on installations (**supply**), providing adequate power for critical missions (**sufficiency**), ensuring resilience in energy systems (**survivability**) and promoting support for the Army's mission, its community and the environment (**sustainability**).

## Strategic Energy Security Goals (ESGs)

- ESG 1. Reduced energy consumption
- ESG 2. Increased energy efficiency across platforms and facilities
- ESG 3. Increased use of renewable/alternative energy
- ESG 4. Assured access to sufficient energy supplies
- ESG 5. Reduced adverse impacts on the environment.

These goals implicitly incorporate the fundamental principle that the improvements achieved shall not lead to reductions in operational capability or the ability of the Army to carry out its primary missions.



# Energy Sustainability

The Army Sustainable Installation program is designed to assist installations to take:

- a **pro-active approach** to plan for long-term mission viability and integrity
- while at the same time **minimize the consumption of resources and reduce the impact** on the surrounding communities and environment.

A **key feature** in this program is **to assess the current and future needs** of an installation for land for training, and assess reliable, secure, and low-cost energy and water. A Sustainable Installation plan is then **developed to minimize or reduce the total use of** resources, ensure mission readiness, and improve the quality of life for soldiers while protecting the local communities and environment.



# Net Zero Goal

“The primary goal is a focus toward net zero and when we talk about net zero, it's not only net zero energy, but it's net zero energy, water, and waste. When you look at the term "net zero" or a hierarchy of net zero you must start with reduction, then progress through repurposing, recycling, energy recovery, disposal being the last. “

—Ms. Katherine Hammack, DoD Bloggers Roundtable, 10 October 2010



# Net Zero Definitions

## **Net Zero Energy**

A Net Zero Energy Installation (NZEI) is an installation that produces as much energy on site as it uses, over the course of a year.

## **Net Zero Water**

A Net Zero Water Installation limits the consumption of freshwater resources and returns water back to the same watershed so not to deplete the groundwater and surface water resources of that region in quantity and quality over the course of a year.

## **Net Zero Waste**

A net zero waste installation is an installation that reduces, reuses, and recovers waste streams, converting them to resource values with zero landfill over the course of a year.

## **Net Zero Hierarchy**

The Army net zero approach is comprised of five interrelated steps: reduction, re-purpose, recycling and composting, energy recovery, and disposal.



# Net Zero by 2020

## Net Zero Energy

- Fort Detrick, Md.
- Fort Hunter Liggett, Calif.
- Kwajalein Atoll, Republic of the Marshall Islands
- Parks Reserve Forces Training Area, Calif.
- Sierra Army Depot, Calif.
- West Point, N.Y.

## Net Zero Waste

- Fort Detrick, Md.
- Fort Hood, Texas
- Fort Hunter Liggett, Calif.
- Fort Polk, La.
- Joint Base Lewis-McChord, Wash.
- U.S. Army Garrison Grafenwoehr, Germany

## Net Zero Water

- Aberdeen Proving Ground, Md.
- Camp Rilea, Ore.
- Fort Buchanan, Puerto Rico
- Fort Riley, Kan.
- Joint Base Lewis-McChord, Wash.
- Tobyhanna Army Depot, Pa.

## Net Zero

- Fort Carson
- Fort Bliss



# Net Zero Path Forward

The Army goal is to have 25 Net Zero Installations  
by 2030.







# Army Energy Initiatives Office Task Force

2 MW solar array  
Fort Carson, Colorado

**We've got the  
LAND and the DEMAND!**



# Energy Initiative Office (EIO) Task Force

**The Secretary of the Army announced the establishment of the EIO Task Force on August 10, 2011.**

**The EIO Task Force is dedicated to working with the private sector to execute large-scale renewable energy projects on Army lands.**

**Renewable energy will help the Army increase energy security, generate revenue and cost savings, meet Federal mandates, reduce greenhouse gas emissions, and enable Net Zero Energy installations.**



# DOING BUSINESS WITH US

## *The Energy Buzz*

Who's Doing Energy Work with Huntsville Center?

70 Full Time Employees with Energy Expertise:  
Program and Project Managers, Engineering, Contracting  
Collaborating with other Corps Districts/Labs and DOE Labs  
30 Years of Energy Experience

Utility Monitoring and Control CX  
Energy Engineering Analysis Program  
Resource Efficiency Manager Program  
Commercial Utility Program  
Energy Conservation Investment Program Validation & Execution  
Facility Reduction Program  
Metering and Meter Data Management System  
Furniture and Furnishings  
Third Party Financing (ESPC, PPA, EUL)  
Environmental  
Medical  
Facility Repair and Renewal



# Business Tools

Huntsville Center Contracting Capability (\$3.9B):

- Alternative Financing
  - ESPC, PPA, ESPC/PPA, UESC
- Energy Contracts (Restricted and Unrestricted)
  - Design Build
  - Architect – Engineer
  - Utility Monitoring and Control
  - Commissioning/Recommissioning
  - Facility Reduction
  - Worldwide Environmental Remediation
  - Medical and Facility Repair and Renewal



# DOING BUSINESS WITH US

## *The Energy Buzz*

### What Energy Contracts are Coming Out for Huntsville Center?

Project Title	Requirement	Region	Estimated Value	Method (Values Estimated)	Type	Solicitation Timeframe
Energy	Design/Build	CONUS and OCONUS	\$40M	Unrestricted MATOC	MATOC FFP	1 <sup>st</sup> Qtr FY12
Energy	Design/Build	CONUS and OCONUS	\$600M	Unrestricted MATOC	MATOC FFP	1 <sup>st</sup> Qtr FY12

Released 29Jun11:

SOURCES SOUGHT – Renewable and Alternative Energy Power Production for Army Installations,  
W912DY-11-R-0036 (99 Misc)  
\$5B, Task Orders between \$750K and \$5M



# Questions

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