

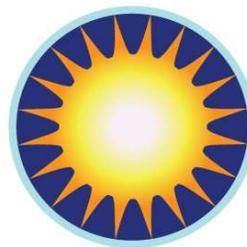


# Army Net Zero Conference – January 2012



## Energy Track Feedback

Paul Volkman, ODASA(E&S)





# Energy – Successes



## Top 3 Successes:

- **Collaboration/ Partnering**
  - Internal Army
  - External Army
- **Garrison Support**
  - Senior Leaders
  - Communities
- **Projects Underway**
  - ESPCs planned or underway at all but one Pilot
  - Over \$5M in QUTM/ECIP Projects at Ft. Carson
  - \$1.7M in HVAC Improvements at Sierra



# Energy – Challenges



## Top 3 Challenges:

### ▪ **Funding**

- Scarce seed money for design
- Shortage of upfront funding for ESPCs
- Insufficient project funding

### ▪ **Personnel**

- Lack of dedicated government energy managers
- No funding for resource efficiency managers

### ▪ **Unique challenges for smaller garrisons**

- Less flexibility to move money between accounts
- Limited engineering and O&M support staff at smaller garrisons
- Difficulty securing state matching funds for Guard installations



# Energy – Take-Aways



## Top 3 Take-Aways:

- **Integrated Energy Master Planning**
  - Helps identify solutions
  - Develops cost-efficient strategies
- **Wasted thermal energy**
  - Numerous opportunities to capture waste heat
- **Benefit of continued training**
  - Forum to share lesson learned
  - Provides access to innovative ideas
  - Opportunity to network with installations and industry



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## Water Track Feedback

Dr. Marc Kodack, ODASA(E&S)





# Water – Successes



- Capture of stormwater for beneficial use
- Leak detection worth investment
- Incorporating Net Zero into community outreach events and education programs
- Multiple efforts underway to increase use of reclaimed water and recycled water
- Incorporating Net Zero into Master Plans
- Energy Water Nexus
- LEED/ASHRAE standards as drivers to achieve Net Zero



# Water – Challenges



- Water rights
  - Information needed on each installation's water rights
- Need better way to estimate water use efficiency than square footage
  - Water use per person
  - Deployment distort water use
- State law prevents direct use of reclaimed water or there is no state law for reinjection of reclaimed water into an aquifer
- Social acceptance of treated wastewater reuse
- Net Zero definition will vary by location
- Return on Investment justification difficult
- Net-worthiness of web-enabled meters



# Water – Take Aways



- Water balances will provide very useful information on water use and gross amounts being used by facility type
- Net Zero has raised importance of water and need for water efficiency
- Aging infrastructure needs upgrading and/or replacing; e.g. waste water treatment plants, distribution and collection systems
- Privatization of barracks – contract implications for water and energy conservation



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## Waste Track Feedback

### Wanda Johnsen, ODASA(E&S)





# Waste – Successes



## Top 4 Successes:

- **Collaboration within the Garrison**
  - EMS or Net Zero Waste Teams (Fort Hood, Fort Polk, JBLM)
  - Targeting waste streams with waste generators (DFACs)
- **Collaboration outside the Garrison**
  - Among the pilot installations
  - With DECA
  - With off-post partners
- **Efforts to incentivize diversion**
  - In contracts, with units, and with AFH
- **Innovation**
  - New approaches and solutions



# Waste – Challenges



## Top 4 Challenges:

- **Making successes the norm**
  - Deconstruction, food and furniture donations
- **Messaging and Marketing**
  - Targeting the single soldier / chain of command
  - Net Zero institutional training
- **Reporting Policy, Guidance, and Tools (SWAR)**
  - e.g., scrap metal
- **Bringing in other Commands (ACC, NETCOM, DLA)**



# Waste – Take-Aways



## Top 3 Take-Aways:

- **Look inside the fence for resources and opportunities**
  - Existing budget
  - Other organizations (MWR, BOSS, volunteers)
- **Continue collaboration**
  - Among installations
  - Other partners
- **Energy-Water-Waste Nexus**
  - Need framework to make informed decisions



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## Initiative Feedback

Kristine Kingery, ODASA(E&S)





# Conference Goals



- Capture best practices and lessons learned
- Collect input from pilot installations on needs to meet Net Zero goal
- Identify Challenges
- Provide access to resources
- Ensure collaboration going forward



# Initiative – Take-Aways



## Top 3 Take-Aways:

- **Successful of planning efforts**
  - Energy audits
  - Renewable studies
  - Water balance studies,
  - Energy and water security assessments,
  - Material flow analyses
- **Nexus between Energy, Water and Waste**
- **Continued Collaborations**



"Always bear in mind that your own resolution to succeed is more important than any other thing."

- Abraham Lincoln

