



# Army Energy Consumption



## United States

## Federal Government

## DoD

## U.S. Army



1%



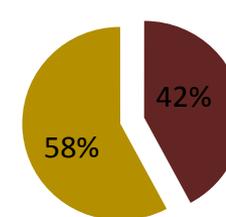
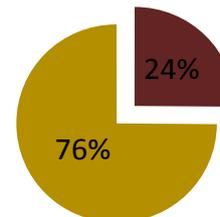
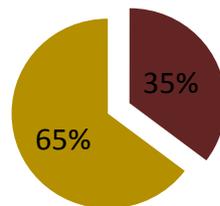
80%



23%



- Facilities
- Vehicles & Equipment (Tactical & Non-tactical)



## FY10 Highlights

- \$2.5+B Operational Energy Costs
- \$1.2 B Facility Energy Costs
- +64% fuel costs in Afghanistan - not counting cost to deliver and secure
- +\$400 million increase in fuel costs expected in FY11 across DoD in Afghanistan

**U.S. = 98,079 Trillion Btu**  
**Fed Gov = 1,096 Trillion Btu (FY09)**  
**DoD = 819 Trillion Btu**  
**U.S. Army = 189 Trillion Btu**

Sources: Energy Information Agency, 2010 Monthly *Energy Review*; Agency Annual Energy Management Data Reports submitted to DOE's Federal Energy Management Program (Preliminary FY2010)



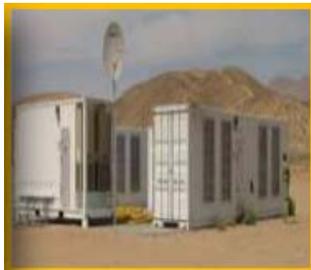
# Army Power and Energy



## Basing

### Installation

### Contingency



Net Zero Installations  
 Contingency Basing  
 Smart & Green Energy  
 Mini Grid Power Plants  
 Adv. Mobile Medium Power Sources  
 Insulated Tents/Spray Foam  
 Renewable Energy Program Plan  
 ARNG Energy Lab (Schools)  
 LED & Electroluminescent Lighting  
 Shower Water Reuse System  
 Expeditionary Water Packaging  
 Water From Air System  
 System Integration Lab – Ft Devens  
 Solar, Wind, Geothermal Power

## Soldier



Rucksack Enhanced Portable Power  
 Expeditionary Energy  
 Soldier Power Manager  
 Nett Warrior

OSD Operational Energy Strategy

Senior Energy & Sustainability Council

Energy Initiatives Task Force

Army Energy Security Initiatives

Net Zero Strategy

## Vehicles

### Tactical

### Non Tactical

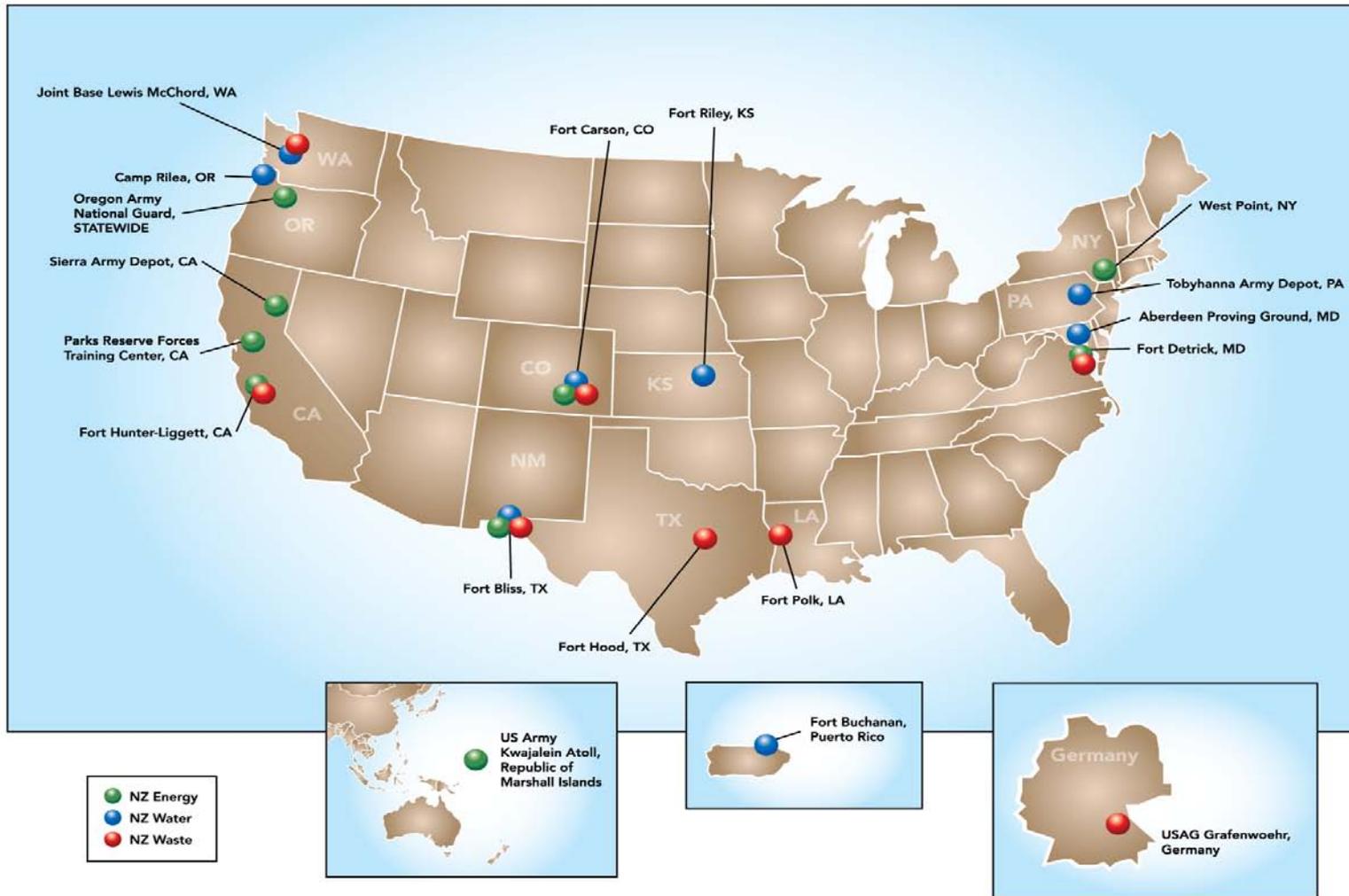


Tactical Fuels Manager Defense  
 Smart-Charging Micro Grids  
 Vehicle-to-Grid (Fort Carson, CO)  
 Alternative Fuels  
 Low Speed Electric Vehicles  
 Hybrid Electric Vehicles  
 Hybrid Truck Users Forum (TARDEC)  
 Hydrogen Fuel Cell Vehicles  
 Improved Turbine Engine Program

Operational Energy  
 Installation Energy

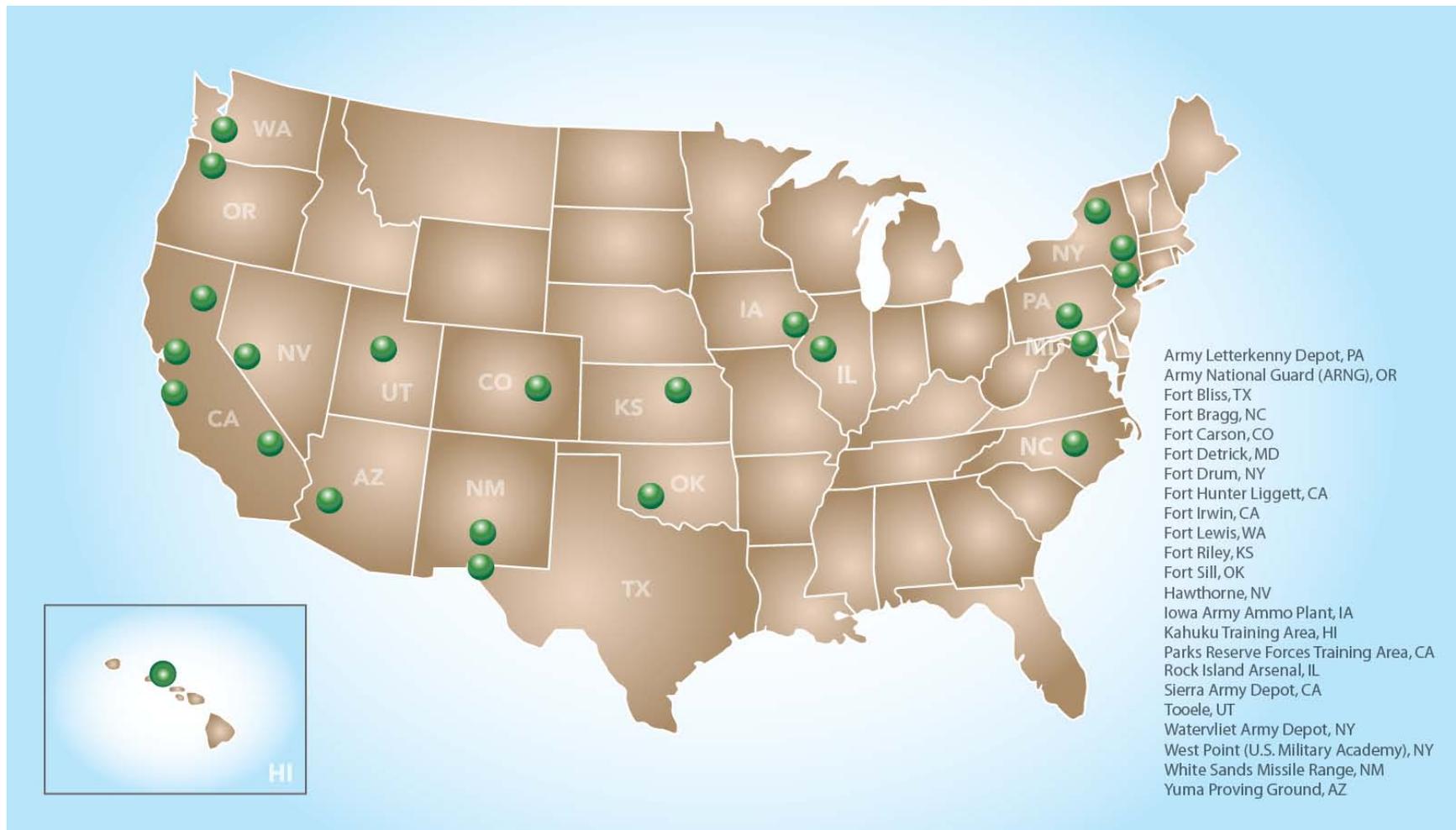


# Army Net Zero Pilots





# EITF Opportunity Assessments





# Back Up Slides



# USEPA Administrator's Priorities



- Taking Action on Climate Change
- Improving Air Quality
- Assuring The Safety of Chemicals
- Cleaning Up Our Communities
- Protecting America's Waters
- Expanding The Conversation on Environmentalism and Working for Environmental Justice
- Building Strong State and Tribal Partnerships (Resetting Relationships)