



U.S. Department of Energy  
Energy Efficiency and Renewable Energy  
Federal Energy Management Program

# FEMP

## Mission, Strategies and Opportunities to Collaborate on DER/CHP in Federal Facilities

Patrick Hughes  
Energy 2004  
Rochester, NY



U.S. Department of Energy  
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## Federal Energy Snapshot

- \$9.6 billion Federal annual energy bill
  - 500,000 facilities
    - Buildings: \$3.9 billion
    - Energy Intensive Operations: \$0.6 billion
    - Exempt Buildings: \$0.4 billion
  - Vehicles & Equipment: \$4.6 billion
- Spends \$200 billion annually on products and services.





## FEMP Mission

***Lead by Example.*** FEMP works to increase ***energy security*** and reduce the cost and environmental impact of Government by

- advancing energy efficiency and water conservation,
- promoting the use of renewable and ***distributed energy***, and
- improving utility management decisions at Federal sites.



## Deployment Focus

### FEMP

- Promotes actions that help accomplish core goals
  - Reduce costs, emissions and energy use
- Offers federal agencies unbiased information on options
- Helps identify best-value solutions (and sources of financing if needed)





# Energy Security

## Various Policies, Guidelines, Mandates for Feds:

- HSPDs #7 & 8: preparedness performance measures and asset inventories (Dec/03)
- FEMA Preparedness Circular: must assure continuity of essential operations in event of emergency (2001).
- E.O. on Critical Infrastructure Protection (2001) and E.O. 12656 Emergency Preparedness Responsibilities

## Bottom Line:

- *Installations* must ensure energy is available for all critical mission operations



# FEMP Energy Security Goals

## New Action Plan is under development to:

- Assist agencies to develop plans for ensuring reliable power.
- Encourage agencies to use DER/CHP and renewable energy technologies as means to address reliability and other energy concerns.

**“ADD CHP”-- Make proven and advanced technology more easily accessible to federal agency sites who want to lead by example with DG/CHP**

- ✓ Access private industry project development expertise, financing, etc
- ✓ Enhance energy security & reliability
- ✓ Replace old equipment
- ✓ Reduce costs

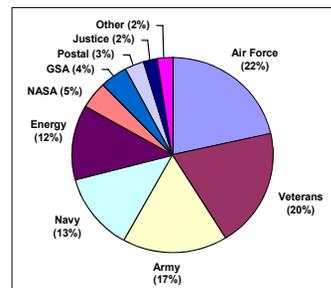
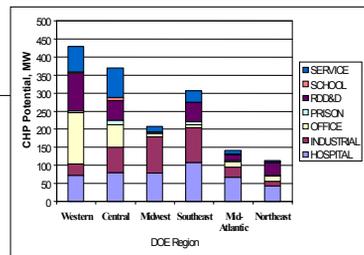
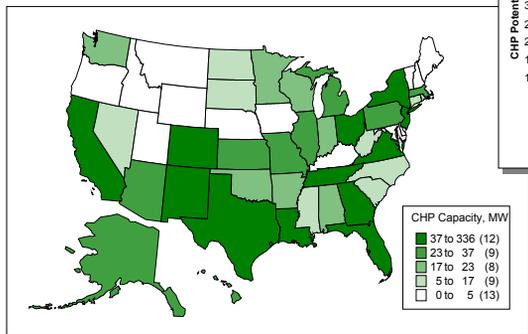


# FEMP's Strategy

- Focus on key markets
  - Agencies: VA and military services
  - Facilities: District systems, hospitals, industrial, etc.
  - States where “head wind” is least
- Target assistance to address site-specific hurdles
  - Technical: verify potential, provide information/support for on-site champion, engage with a project developer, direct on-site TA if necessary
  - Financial: Partnership building, project facilitation
- Help sites make informed decisions on DER/CHP systems



# FY 2001 Market Analysis: 1600 MW Potential



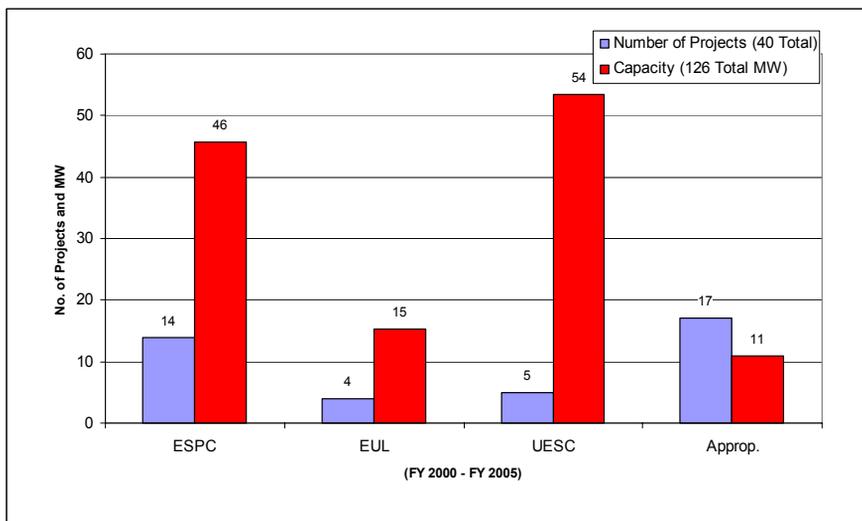


# FEMP Project Assistance

- Technical Assistance
  - Screenings, Feasibility Studies...
  - TA Calls and Ad Hoc support for projects
  - Agency & Facility Reliability Assessments
- Private Financing (ESPCs, UESCs, Other)
  - Measurement and verification
- Technology Demonstrations



## Most Federal CHP Involves Alternative Financing

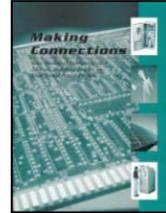




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## FEMP Outreach and Education

- Develop and disseminate targeted information
  - Best practices, case studies, fact sheets
  - Public benefits and incentives programs
  - Web page updates, direct email messages
  - FEMP Focus, technology alerts, etc.
- Build on existing FEMP, DE, and other materials
  - Basic info, How To Guide, interconnection and permitting guide, fact sheets, market assessment, case studies
  - Technology briefs



<http://www.eere.energy.gov/femp/>



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## DER-CHP Training

FEMP training listed on web site:

<http://www.eere.energy.gov/femp/newsevents/training/>

- This Event--Energy 2004, Rochester, NY
  - ✓ Pre-Event CHP training workshop
- Energy 2005: Long Beach, California
- DER hands-on training for federal managers in Albuquerque, NM
- Web-cast half-day training sessions
- DG/CHP for Federal Facilities Workshops—see presentations from past events, and what's coming in future
- Check out the training web page!





## *Lessons Learned*

- Strongest market drivers for CHP are energy security, costs, equipment upgrades
- Dual fuels and/or intelligent operating controls reduce susceptibility to changing fuel costs
- Savings from CHP can “subsidize” renewables
- Site champions are critical for success

*More lessons and case studies are presented in the Energy Security Tracks at Energy 200x...*



## **Input Always Welcome!**

- Discussion Topics
  - What else could FEMP do to be more effective in supporting DG/CHP?
  - How can we strengthen synergy among programs?
  - Where are gaps?
  - Others...





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Thanks!

Contacts, Backup slides...



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## CHP Contacts

**For Assistance w/Federal Sites--Technical or Financial:  
FEMP staff at DOE Regional Offices, HQ and ORNL**

**CHP Outreach Lead [also Biomass and Alternative Methane Fuels  
Contracting Officer's Rep]**

**Christopher Abbuehl (DOE Philadelphia Regional Office)  
215-656-6995, [Christopher.Abbuehl@ee.doe.gov](mailto:Christopher.Abbuehl@ee.doe.gov)**

**CHP Program Lead, Technical Assistance**

**Shawn Herrera (DOE/HQ), 202-586-1511, [shawn.herrera@ee.doe.gov](mailto:shawn.herrera@ee.doe.gov)**

**CHP Financing Assistance**

**Tatiana Strajnic (DOE/HQ), 202-586-9230, [tatiana.strajnic@ee.doe.gov](mailto:tatiana.strajnic@ee.doe.gov)**

**CHP Technical or Financing Support**

**Kirby Wilcher (ORNL), 865-574-0429, [wilcherkl@ornl.gov](mailto:wilcherkl@ornl.gov)**





## Contacts

### Technical Issues: FEMP TA staff at DOE Regional Offices

**Arun Jhaveri (Seattle)**  
206-553-2152  
arun.jhaveri@ee.doe.gov

**Melinda Latimer (Chicago)**  
312-886-8582  
melinda.latimer@ee.doe.gov

**Randy Jones (Denver)**  
303-275-4814  
randy.jones@ee.doe.gov

**Paul King (Boston)**  
617-565-9712  
paul.king@ee.doe.gov

**Claudia Marchione (Philadelphia)**  
215-656-6967  
Claudia.marchione@ee.doe.gov

**John Adams and Lisa Hollingsworth  
(Atlanta) 404-562-0563**  
John.adams@ee.doe.gov

**Shawn Herrera (DOE/HQ)**  
202-586-1511  
shawn.herrera@ee.doe.gov

**Kirby Wilcher (ORNL)**  
865-574-0429  
wilcherkl@ornl.gov



## Contacts

### Financing issues: FEMP financing staff at Regional Offices

**Scott Wolf (Seattle)**  
206-553-1004  
scott.wolf@ee.doe.gov

**Gordon Drawer (Chicago)**  
312-886-8572  
gordon.drawer@ee.doe.gov

**Sharon Gill (Denver)**  
303-275-4846  
sharon.gill@ee.doe.gov

**David Mark (Boston)**  
617-565-9712  
david.mark@ee.doe.gov

**Tom Hattery (Philadelphia)**  
215-656-6955  
thomas.hattery@ee.doe.gov

**Doug Culbreth (Atlanta)**  
919-870-0051  
carson.culbreth@ee.doe.gov

**Tatiana Strajnic (DOE/HQ)**  
202-586-9230  
tatiana.strajnic@ee.doe.gov

