

U.S. DEPARTMENT OF
ENERGY

Office of
**ENERGY EFFICIENCY &
RENEWABLE ENERGY**

Washington Update

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November 15, 2017

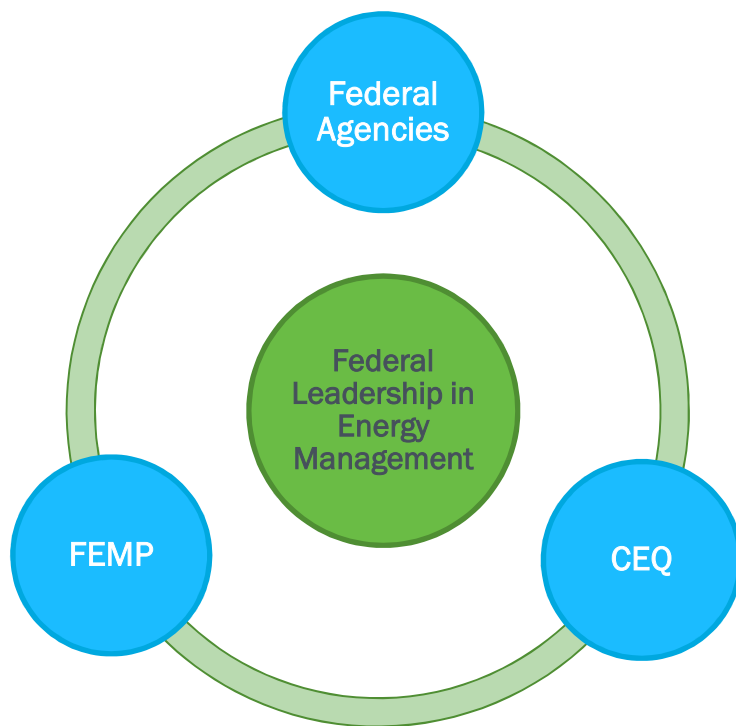


Small is.....Big and Powerful...



FEMP Focus and Role

The Federal Energy Management Program (FEMP) works with our stakeholders to enable federal agencies to meet energy related goals, identify affordable solutions, facilitate public-private partnership and provide energy leadership to the country by identifying government best practices.



FEMP supports agencies by:

- providing federal goal and progress accountability and analytics to OMB and Congress,
- developing training to enhance the skills and agility of the federal workforce,
- implementing resiliency through enhanced energy management strategies, technologies and tools,
- providing technical assistance for performance contracting and power purchase agreements.

OMB FY19 Budget Memo Priorities

American
Security
(warfighter)

American Energy
Dominance

Improving Health
Outcomes

Increasing
Government
Accountability

Innovative Early
Stage Research

Maximizing
Interagency
Coordination

Developing
Future-Focused
Workforce
(STEM)

Modernizing and
Managing
Research
Infrastructure

Department of Energy Priorities

Critical
Materials

Cybersecurity

Energy-water
Nexus

Grid
Reliability

STEM

Energy
Storage

High Performance Computing

Federal Priorities = FEMP Priorities



Expand Public-Private Partnerships



Continue Cost Savings for Tax Payers



Increase Infrastructure Development



Improve Data Management and Security



Strengthen Portfolio Resiliency

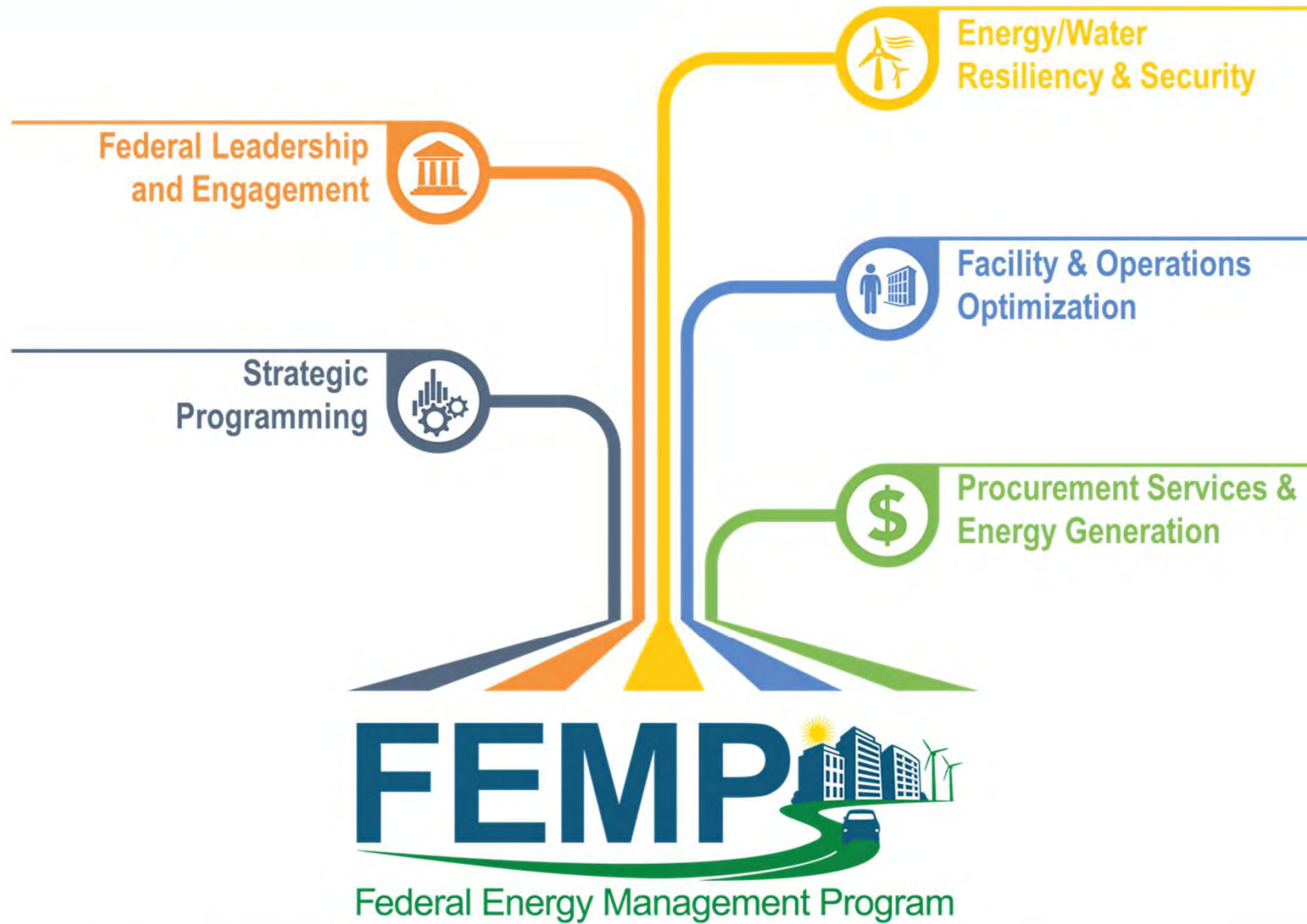


Enhance Workforce Development



Share Government Best Practices

FEMP Roadmap for the future



Resiliency Portfolio Planning

FEMP assists agencies with improving energy resiliency and portfolio energy security at mission-critical installations by:

- **Assessing and identifying the best methods for achieving energy resiliency and security**
- **Facilitating collaboration between federal agencies**
- **Developing best practices, training, and tools**
- **Implementing replicable project financing workshops that enable resiliency and secure microgrids.**



NASA Energy Resiliency Program

- Assessing & developing microgrid/energy storage conceptual designs
- Facilitating collaboration between NASA and DoD agencies
- Developing energy resiliency technical guide and policy
- Implementing replicable CHPs and microgrid-ready solar array projects



NASA Energy Resiliency & RE Integration Case Studies

Stennis Space Center

- Identifying power islands of NASA and Navy facilities
- Incorporating 13 MW solar array & wasted hydrogen recovery efforts
- Analyzing impacts of electromagnetic pulse



Johnson Space Center

- Installing \$47M 11.6 MW combined heat and power plant (partially funded with FEMP 2014 AFFECT grant)
- Developing energy resiliency & distribution system conceptual design to integrate CHP



ISO 50001 - Energy Management Systems

- International standard that draws from **best practices around the world**. Developed with input from 56 countries, many countries now adopting it as a national standard.
- Participants are certified for ISO 50001, which specifies requirements for establishing, implementing, maintaining and improving an energy management system.
- “50001 Ready” is a voluntary program that recognizes a facility’s self-attestation to ISO 50001. DOE recognition requires 2 steps:



=

Completed
tasks in
Navigator

+

Validated energy
savings (*Portfolio
Manager, QEST, others*)

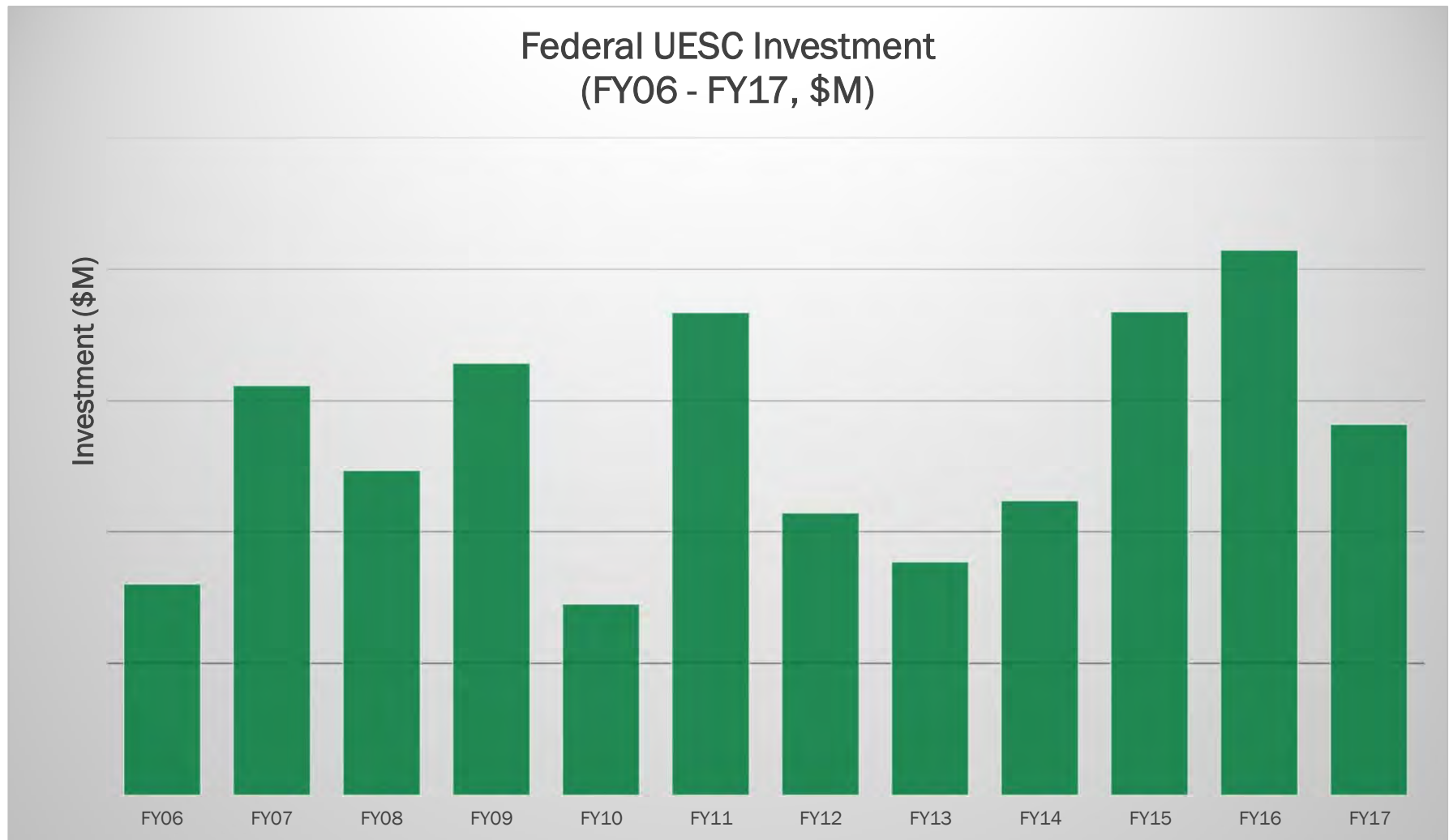
50001 Ready Contact Information

- **FEMP is looking for Federal Agency Pilots**
 - Contact David Boomsma, FEMP
 - david.boomsma@ee.doe.gov
 - 202-586-7086
- <https://energy.gov/eere/amo/50001-ready-program>
- **Partnering with Advanced Manufacturing Office**
 - Pete Langlois
 - pete.langlois@ee.doe.gov
 - 202-586-0984

FEMP's Water and Lighting Tools

- **Water Project Screening Tool**
<https://energy.gov/eere/femp/downloads/water-project-screening-tool>
- **Alternative Water Mapping Tools**
<https://energy.gov/eere/femp/alternative-water-sources-maps>
- **Net Zero Water Building Strategies**
<https://energy.gov/eere/femp/net-zero-water-building-strategies>
- **Water Rate Escalation Study**
<https://energy.gov/eere/femp/downloads/analysis-water-rate-escalations-across-united-states>
- **Water and Lighting Case Studies**
<https://energy.gov/eere/femp/federal-energy-management-program-case-studies>
- **LED Retrofit Kit Application Guide**
<https://energy.gov/eere/femp/downloads/led-retrofit-kits-tleds-and-lighting-controls-application-guide>

Federal UESC Investment



Capturing and Sharing our Collective Success

FEMP is collecting performance contracting success stories to promote replicable solutions.

FDA's White Oak Campus

Learn how Honeywell helps deliver resiliency and cost savings to Food and Drug Administration's (FDA) White Oak Campus.

[VIEW MORE](#)



Success Story Submission Format

Title: Private sector partner and agency with highlighted feature

Facts of Project

- **Overview:** High level overview of award including dollar value, year, facilities, etc.
- **Project Highlights:** Specific energy, water, O&M features that are helping to address issues and/or contribute significantly
- **Project Impacts:** Other ECM and water efficiency measures are expected and estimates of annual savings and benefits of:
 - ✓ Guaranteed cost and energy savings (\$/MMBTU)



Other FEMP estimated Impacts, jobs, GHGs, other

Disclaimer as applicable

Federal Energy and Water Management Awards

FEDERAL
award winners

37 YEARS
1,300+ WINNERS



Together, these winners have saved more than 930 trillion

LIFECYCLE
Btu



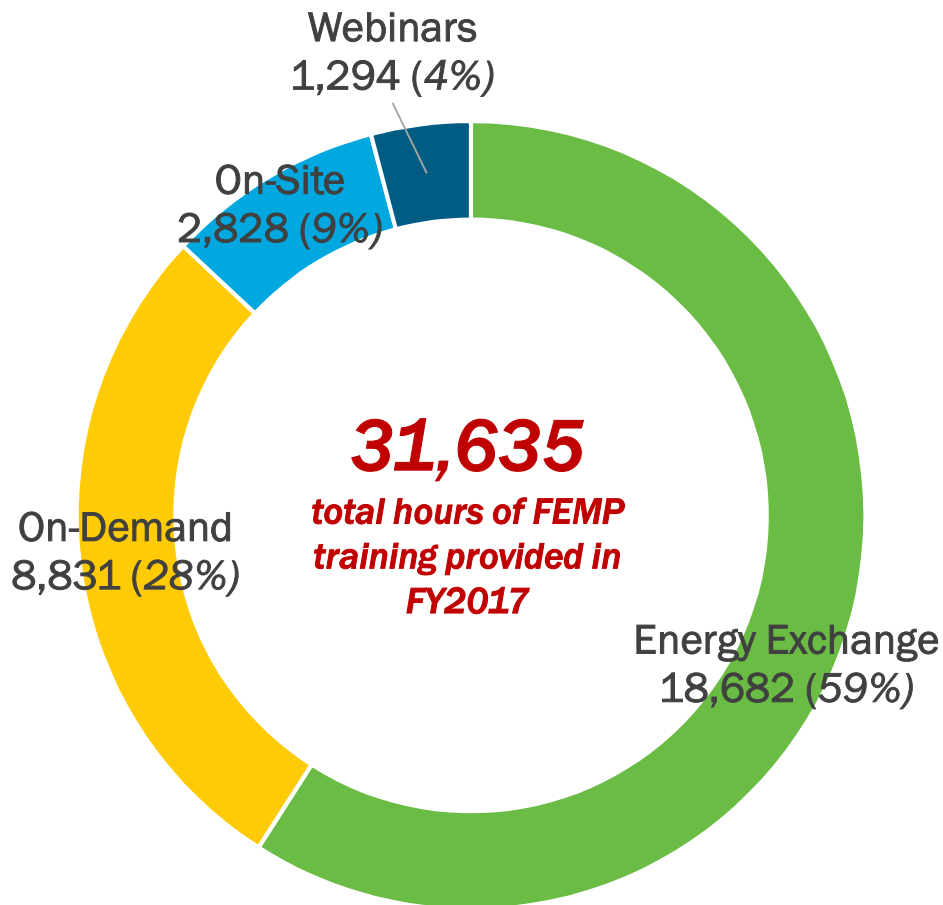
which is almost enough energy to power *all* federal facilities for

3 YEARS



FEMP Training Update

FEMP Training Provided in FY17
(# of hours)



FEMP OFFERS **4** CONVENIENT FORMATS TO IMPROVE WORKFORCE COMPETENCIES

1. ENERGY EXCHANGE EVENT
2. ON DEMAND E-COURSES
3. ON-SITE WORKSHOPS
4. LIVE & RECORDED WEBINARS

- Many courses are *accredited* by the International Association of Continuing Education and Training (IACET).
- *Competency-based training* supporting the *FBPTA* for energy and facility managers, contracting officers, and support staff
- *Equally relevant* to state/local governments, utilities, and industry

Visit the FEMP Training at: <http://www.eere.energy.gov/femp/training>

Energy Exchange 2018 - Save the Date!



**EDUCATIONAL &
NETWORKING FORUM
AUGUST 21-23, 2018
Cleveland, Ohio**
femp.energy.gov/energyexchange