

FEMP Training April 20, 2015

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FEMP Training Director



Federal Energy Management Program Training

LIVE STREAMING SEMINARS SELF-PACED INTERACTIVE eTRAINING ON-SITE WORKSHOPS ON-DEMAND WEBINARS

- **Competency based training** for Federal energy and facility managers, contracting officers, and supporting staff
- Equally relevant to state and local government personnel, utilities, and the private sector
- **Designed to engage:** self-paced, multi-media, interactive, progress checks
- Available for CEUs and AIA and USGBC credit.

For a full list of courses and offerings, visit: http://femp.energy.gov/training



No cost, no travel Available 24/7 Online, open-access courses

Instructors with Federal sector experience

In-depth courses completed at your pace



FEMP is an Authorized Provider of IACET CEUs



FEMP's IACET Accreditation

International Association for Continuing Education and Training

Why is accreditation important?

- Establishes FEMP as a leader in Federal continuing education & training
- FEMP training program is certified by an independent accrediting body to offer *certified* Continuing Education Units (CEUs)

Certified Trainings receive IACET CEUs & Certificate

• E-Learning

On-Demand training that leverages Learning

Management Systems to facilitate learning experiences

First Thursday Seminars

- Live online training session that allows for live interaction between SME and audience
- Archived to reach larger audience

On-Site Workshops

Classroom Training



Renewable Energy

Enhanced partnership with National Institute of Building Sciences (NIBS)

 Access FEMP e-Training through both FEMP and Whole Building Design Guide sites

Benefits

- Expanded audience reach (~40,000 registered on WBDG)
- AIA, USGBC Credits
- Self-tracking, self-paced learning
- Learning Management System tracks and records student progress



http://www.wbdg.org/education/femp_ce.php



Federal Energy Management Program Training

ENERGY MANAGEMENT

PROJECT FINANCING

RENEWABLE ENERGY

ADVANCED TECHNOLOGIES

WATER EFFICIENCY O&M BEST PRACTICES

whole BUILDING DESIGN GUIDE A program of the National Institute of Building Sciences http://www.wbdg.org/education/femp_ce.php





















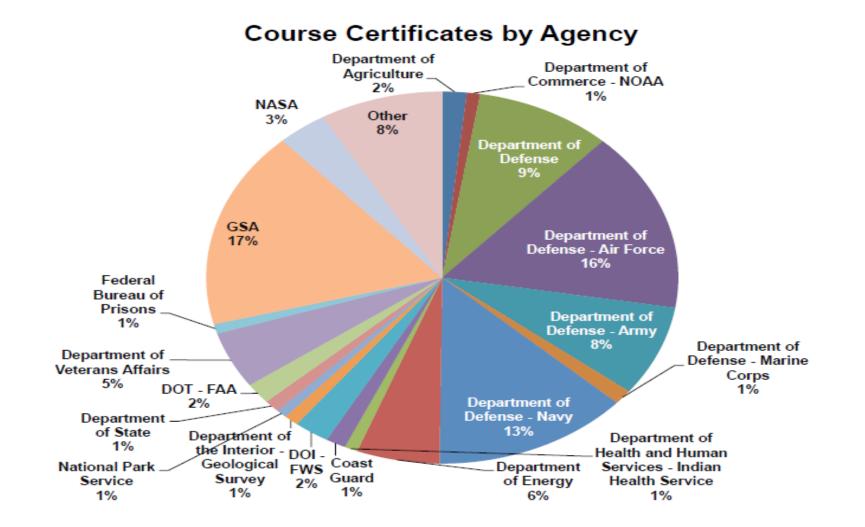
2014 Training Highlights

- FEMP Training Proven Effective
 - − FY2014 Participant evaluations on a scale of 1 − 10:
 - Highly relevant to job performance = 8.59
 - Highly effective to job competency =
 6.14 before training; 7.91 after training
 - Highly rated overall satisfaction = 8.77
- New platform for delivering courses improves interactivity
- Training portfolio* includes:
 - 20 eTraining courses
 - 23 First Thursday Seminars
 - 21 On-Demand Webinars



Note: eTraining and First Thursday Seminar learners are eligible for CEUs *As of 9/30/2014

FEMP Training Reaches Diverse Audience





New Courses & Seminars in FY 2015

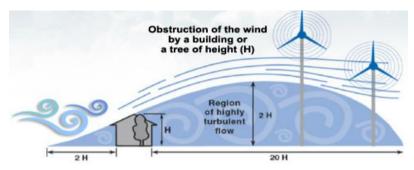
Semin@R

 O&M Best Practices for Small-Scale PV Systems



- Advanced Electric Metering in Federal Facilities
- Guiding Principles for High Performance Sustainable Buildings
 - Series of 5 half-hour courses
- Renewable Energy Technologies
 - Series of 7 one-hour courses on specific technologies
- Energy Savings Performance Contracting: An Advanced Guide









Energy Efficiency & Renewable Energy

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Series and Levels of Difficulty

FEMP has recently implemented a new Series concept to recognize learners who successfully complete a set of related courses

FEMP Series include:

- Facility Energy Assessments and Commissioning
- Project Financing through ESPCs
- Project Financing through UESCs
- Solar Energy: Photovoltaics
- Renewable Energy Technology
 Applications

- Guiding Principles for High Performance Sustainable Buildings
- Sustainable Strategies for O&M and Energy Conservation
- Energy Efficient HVAC in Data Centers and Laboratories
- Energy Efficient Procurement and Life Cycle Costing

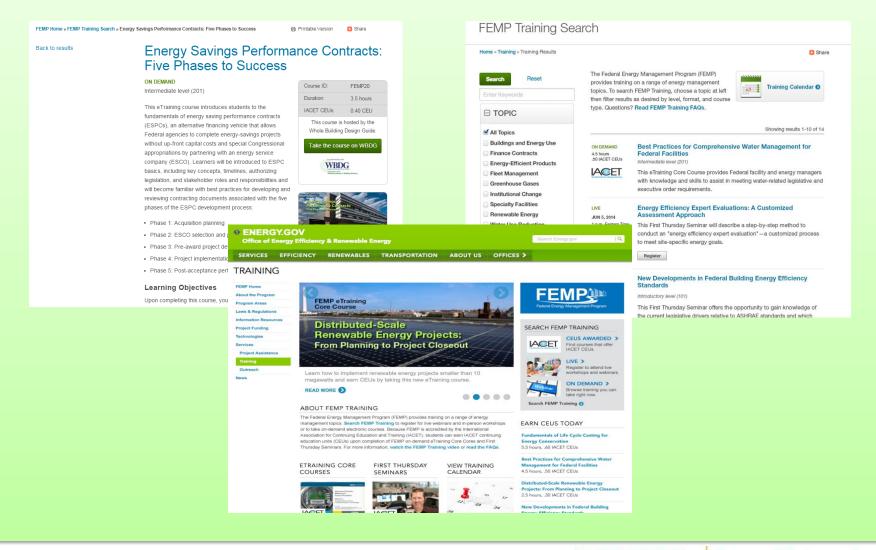
Course levels allow learners to select courses right for them

- 101 = Introductory
- 201 = Intermediate
- 301 = Advanced



Updated Website

http://femp.energy.gov/training





FBPTA Submissions

FEMP worked cooperatively with GSA to submit existing training that fulfills the requirements of the FBPTA.

20 FEMP courses recommended on FMI.gov

- Energy 101
- Advanced Metering Solutions for Federal Agencies
- Selecting and Evaluating New and Underused Technologies
- Achieving Energy Security in Federal Buildings
- Streamlining ESPCs for Small Sites
- Implementing Deep Retrofits in Federal Buildings
- Combined Heat and Power for Energy Resource Optimization
- Solid-State Lighting: Highlighting Indoor Applications
- Goal Based Contracting for Energy Efficient Buildings
- New Developments in Federal Building Energy Efficiency Standards
- Building Automation Systems for Existing Federal Facilities

- Commissioning for Existing Federal Facilities
- Planning an Energy Assessment for Existing Federal Facilities
- Managing Water Assessments in Federal Facilities
- Selecting, Implementing and Funding Photovoltaics
- Sustainable Institutional Change for Federal Facilities
- Sustainable Strategies for Existing Federal Facilities
- Distributed Scale Renewable Energy Projects
- Advanced HVAC in High-Tech Buildings: Data Centers
- Advanced HVAC in High-Tech Buildings: Laboratories
- Best Practices in Comprehensive Water Management
- Life Cycle Costing Analysis for Energy Conservation
- Advanced Electric Metering in Federal Facilities



Available FEMP Courses https://www4.eere.energy.gov/femp/training/

Auditing, commissioning, and retuning

- Commissioning for Existing Federal Buildings
- Energy Efficiency Expert Evaluations
- Planning an Energy Assessment for Federal Facilities

Design for new construction and major renovations

- Fundamentals of Life Cycle Costing for Energy Conservation
- Goal Based Contracting for Energy-Efficient Buildings
- Implementing Deep Retrofits: A Whole Building Approach

Energy management fundamentals

- Energy 101
- New Developments in Federal Building Energy Efficiency Standards
- Planning an Energy Assessment for Federal Facilities
- Selecting and Evaluating New and Underused Energy Technologies

Energy-efficient products

- Energy-Efficient Product Procurement
- Fundamentals of Life Cycle Costing for Energy Conservation

Facility operations and maintenance

- Achieving Energy Security in Federal Facilities
- Re-Thinking Operations & Maintenance for High-Performance Buildings

Fleet Management

- Federal Fleet Infrastructure and Electric Vehicles
- Federal Fleet Management 101

Guiding Principles

- GPI Employ Integrated Assessment, Operation, and Management Principles
- GP2 Optimize Energy Performance
- GP3 Protect and Conserve Water
- GP4 Enhance Indoor Environmental Quality
- GP5 Reduce Environmental Impact of Materials

Labs and Data Centers

- Achieving Energy-Efficient Data Centers with New ASHRAE Thermal Guidelines
- Advanced HVAC in High-Tech Buildings Data Centers
- Advanced HVAC in High-Tech Buildings Laboratories
- Labs, Data Centers, and High-Tech Facilities

Lighting Technologies

- New Lighting Technologies
- Selecting and Evaluating New and Underused Energy Technologies
- Solid-State Lighting: Highlighting Indoor Application

Metering and building automation systems

- Advanced Electric Metering in Federal Facilities
- Building Automation Systems for Existing Federal Facilities

Project financing: ESPCs

- Energy Savings Performance Contracting
- Energy Savings Performance Contracts: Five Phases to Success!
- Fundamentals of Life Cycle Costing for Energy Conservation
- Measurement and Verification in ESPCs

Project financing: UESCs

- Executing Utility Energy Service Contracts: An Advanced Guide
- Launching a Utility Energy Services Contract (UESC): Getting to Yes!
- Placing UESC Task Orders Under a GSA Area-Wide Contract
- Utility Energy Service Contracts and Energy Project Incentive Funds

Renewable Energy

- Distributed-Scale Renewable Energy Projects: From Planning to Project Closeout
- Federal On-Site Renewable Power Purchase Agreements
- Renewable Energy

Renewable Energy: PV

- Selecting, Implementing, and Funding Photovoltaic Systems in Federal Facilities
- O&M Best Practices for Small Scale Photovoltaic Systems

Renewable Energy Technology Applications

- Biomass
- Geothermal
- Hydropower and Ocean Energy
- Integration of Renewable Energy Systems
- Photovoltaics and Daylighting
- Solar Thermal and Concentrating Solar Power
- Wind Energy

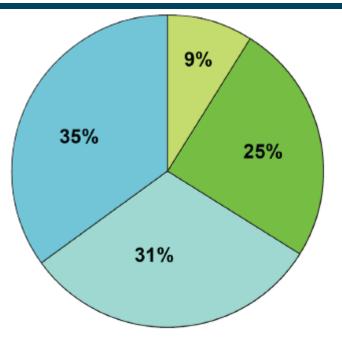
Sustainability

- Introduction to Executive Order 13514
- Fundamentals of Life Cycle Costing for Energy Conservation
- Re-Thinking Operations & Maintenance for High-Performance Buildings
- Sustainable Institutional Change for Federal Facility Managers
- Sustainable Strategies for Existing Federal Facilities

Water Management

- Managing Water Assessments in Federal Facilities
- Best Practices for Comprehensive Water Management for Federal Facilities

Seeking Agency Input for New Courses



FUTURE TOPIC RECOMMENDATIONS BY STUDENTS IN FY 2014

09% Operations & Maintence (Commissioning, Metering, Audits)

25% Project Funding (UESC, ESPC, M&V)

31% Advanced Technologies (Building Automation, Lighting, Data Centers)

35% Renewable Energy, Sustainability (Energy Efficiency, Water, Solar)

- Are there other specific topics FEMP Training should consider?
- FEMP would like to contact agency/region/field offices on new training opportunities. Seeking
 - Training Points of Contact emails
 - Communication Points of Contact emails



Questions?

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