



**Better  
Buildings®**  
U.S. DEPARTMENT OF ENERGY

# **Train and Hire Qualified Energy Staff**

Better Buildings Summit

Wednesday, May 11<sup>th</sup> 2016

3:45-5pm

# Agenda: Questions We Will Address

- What are the Better Buildings Workforce Guidelines (BBWG)?
- How and why does a certification provider use BBWG?
- How do federal building owners use BBWG?
- How can private building owners use BBWG?
- What is the Certificate of Proficiency in Benchmarking?

# Today's Presenters



**Bill Kent,**  
Association of  
Energy  
Engineers



**Brian Gilligan,**  
U.S. General  
Services  
Administration



**Deane Evans,**  
New Jersey  
Institute of  
Technology



**Cody Taylor,**  
U.S. Department  
of Energy  
(moderator)

# Better Buildings Workforce Guidelines

Who are the skilled and qualified workers in advanced energy occupations?

## Define Skills

Voluntary **Better Buildings Workforce Guidelines**, defined by industry and government

## Verify

Third-party accreditation of certification or training programs

## Recognize

DOE recognition of accredited programs = consumer trust in program quality and workforce performance

CONFUSION .....► CONFIDENCE

# Job Categories Included

- Building Energy Auditor
- Building Commissioning Professional
- Energy Manager
- Building Operations Professional
- Facility Manager (federal focus)



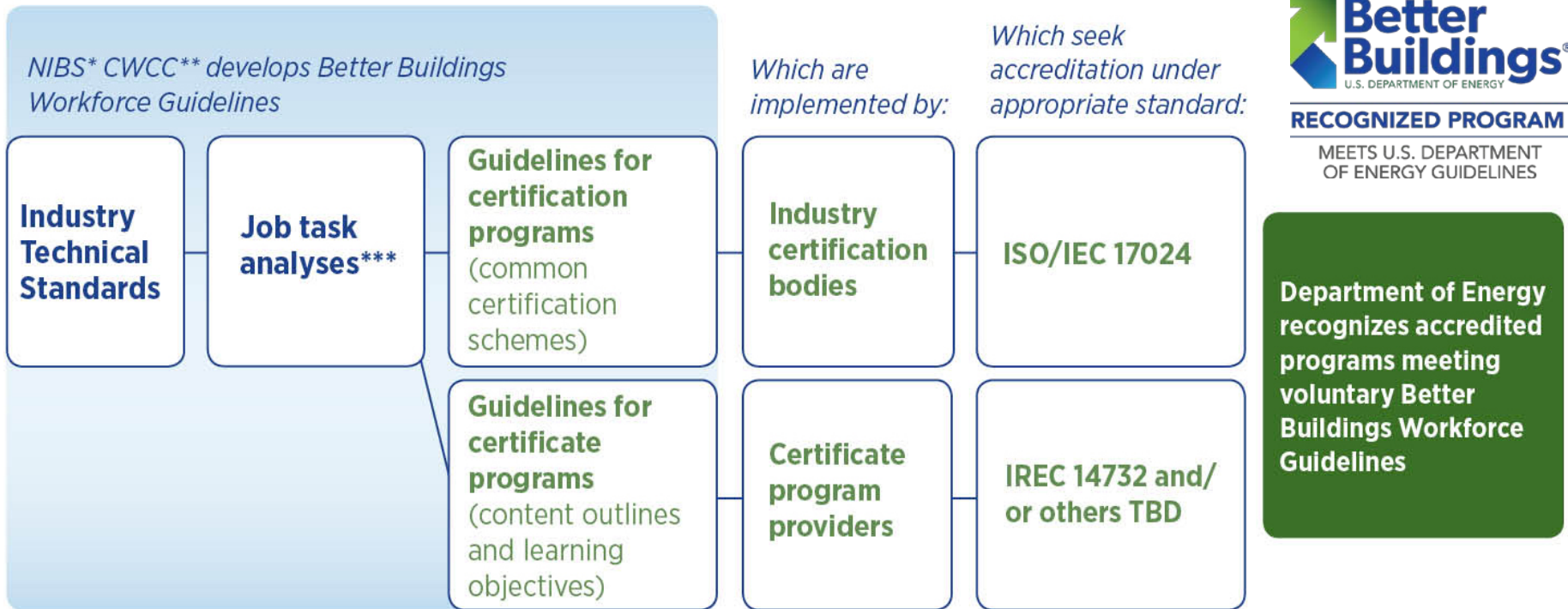
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**RECOGNIZED PROGRAM**

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MEETS U.S. DEPARTMENT  
OF ENERGY GUIDELINES

# A Government and Industry Partnership to Advance Commercial Workforce Quality



\*National Institute of Building Sciences

\*\*Commercial Workforce Credentialing Council

\*\*\* Building Energy Auditor; Building Commissioning Professional; Energy Manager;

Building Operations Professional; Facility Manager (Government and FBPTA focus)

# **Workforce Development & Quality Professional Certification Programs**

**Bill Kent, Association of Energy  
Engineers**

# Workforce Development & Quality Professional Certification Programs

*Why participate in BBWG process  
and seek ANSI Accreditation*

Bill Kent, CEM  
Program Director, AEE





# Who We Are...

AEE is a nonprofit organization of 18,000 members, a network of 96 local chapters in 98 countries.

*“To promote the scientific and educational interests of those engaged in the energy industry and to foster action for sustainable development”*

**Asit Patel**  
**AEE President 2016**



# AEE International Headquarters



EPA Energy  
Star Rated



# Rise to the top of the Energy Management Profession: Become Energy Certified...

AEE has certified over 15,500 Certified Energy Managers® (CEM®) and over 28,000 professionals in specialty energy areas.





The CEM® and CEA® programs are ANSI accredited and recognized under the Better Buildings Workforce Guidelines.



ANSI Accredited Program  
PERSONNEL CERTIFICATION  
#1088



**RECOGNIZED PROGRAM**

MEETS U.S. DEPARTMENT  
OF ENERGY GUIDELINES





Department of Energy and  
National Energy Policy Act of  
1978

# Why ANSI and BBWG?



# Why ANSI?



ANSI Accredited Program  
PERSONNEL CERTIFICATION  
#1088

- Adherence to a rigorous internationally recognized accreditation process  
ANSI/ISO/IEC/17024
- Published Job Task and Body of Knowledge, Certification Scheme
- Confirmation of competencies
- Fair and impartial administration of certification
- Independent assessment to standard



# Why BBWG?



**RECOGNIZED PROGRAM**

MEETS U.S. DEPARTMENT  
OF ENERGY GUIDELINES

- Built upon a clear set of industry-developed guidelines
- Common Certification Scheme and Job Task
- Nationally recognized and consistent guidelines will reduce market confusion





# Find our more...

Bill Kent

[bill@aeecenter.org](mailto:bill@aeecenter.org)

770 447 5083, x 217



# **Better Buildings Workforce Guidelines in the Federal Sector**

**Brian Gilligan, U.S. General Services  
Administration**



# Federal Workforce Legislation

## Federal Buildings Personnel Training Act - FBPTA

*“...core competencies ...relating to **building operations and maintenance, energy management, sustainability, water efficiency, safety (including electrical safety) and building performance measures.**”*

## EO 13693 Planning for Federal Sustainability in the Next Decade

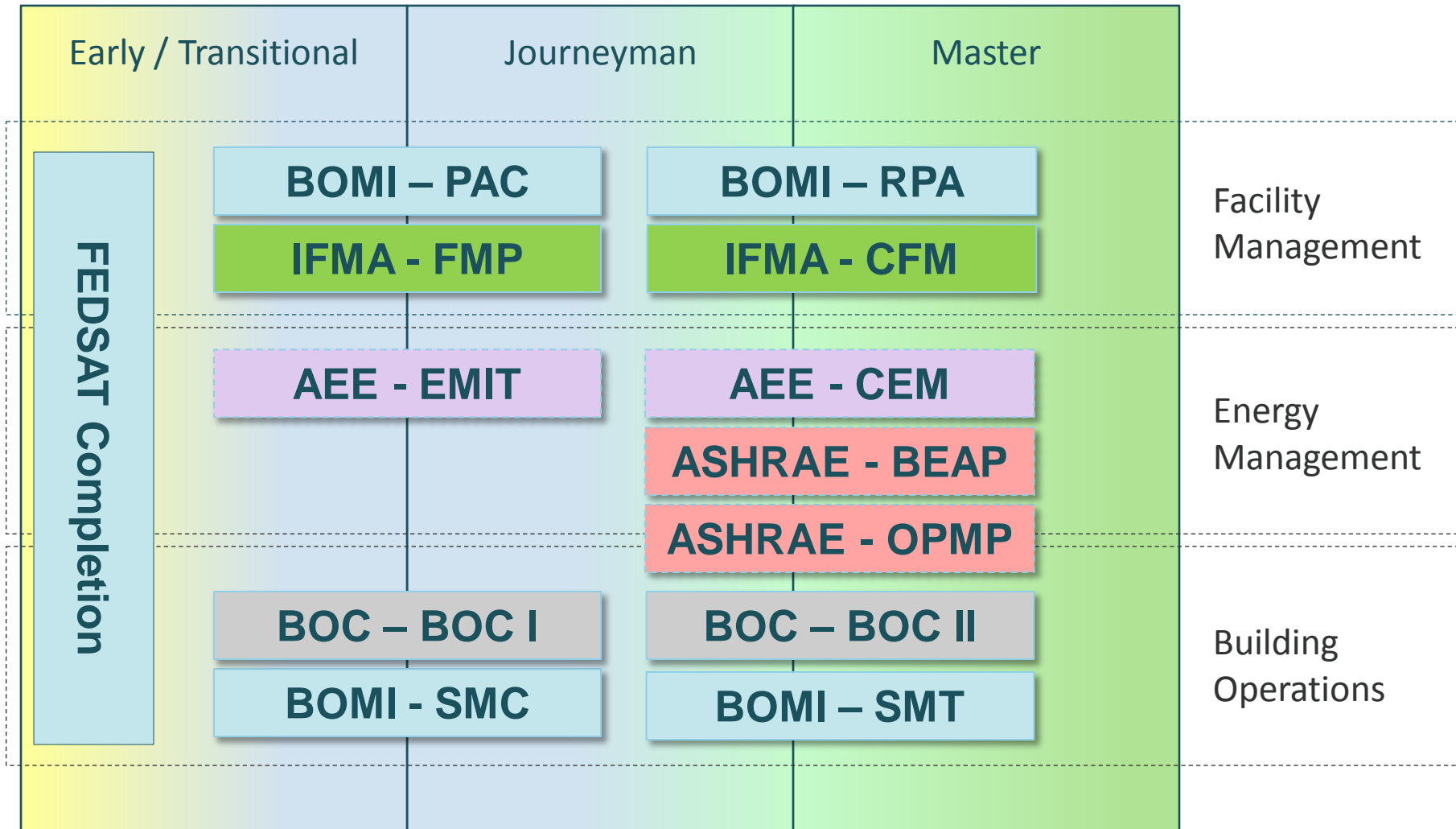
*“...dedicated occupational series... roles that directly impact the achievement of Federal sustainability goals such as energy managers, federal facility managers, building operations professionals and specialized program managers.”*

# BBWG Job Titles Support Federal Legislation

- **Building Energy Manager** **FBPTA, EO-13963, FY12 NDAA**
- **Building Operating Professional** **FBPTA, EO-13963, FY12 NDAA**
  
- **Federal Facility Manager** **FBPTA (FEDSAT), EO-13963**
  
- **Building Energy Auditor**
- **Building Commissioning Professional**

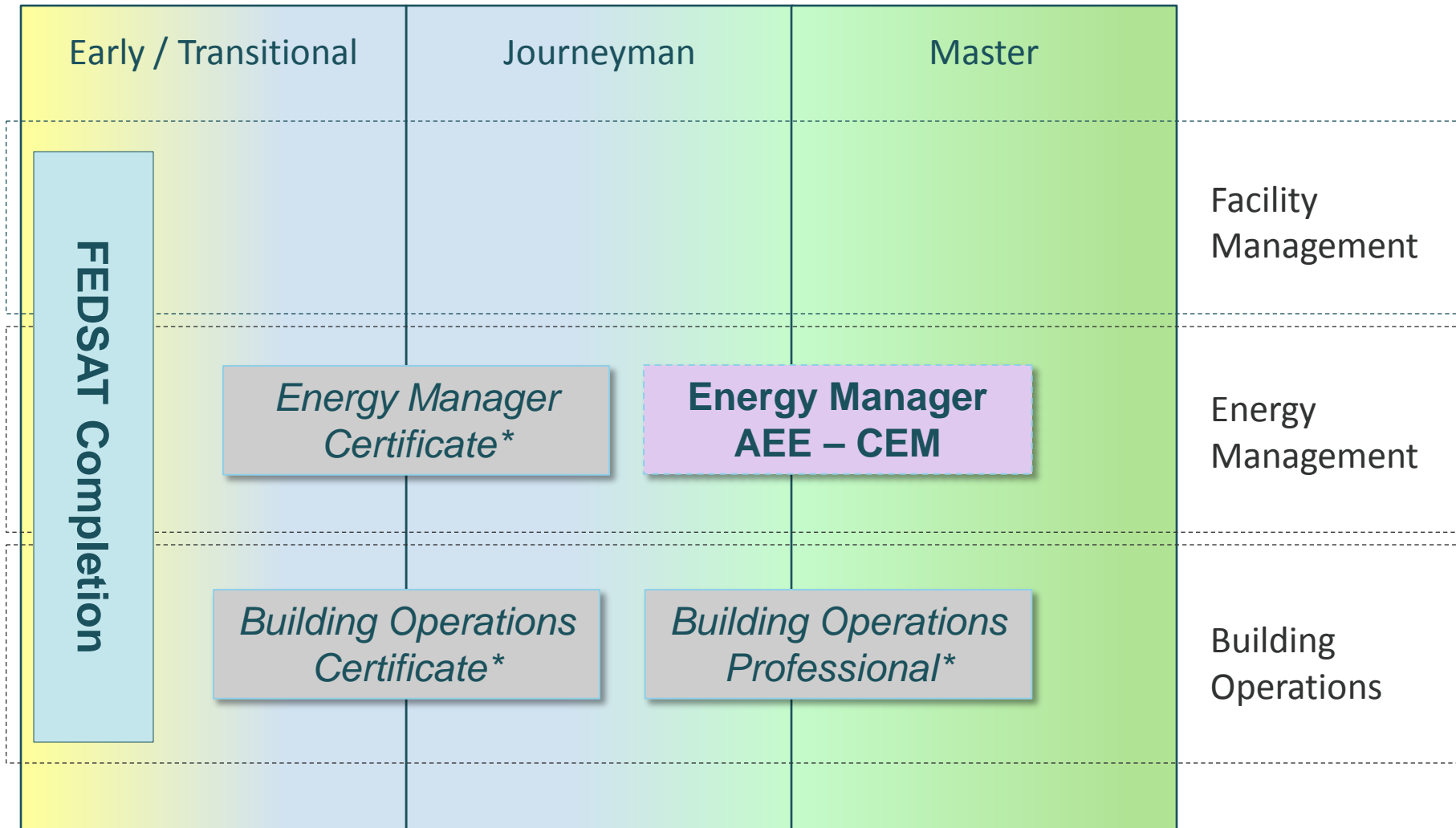


# Simplified Career Pathways



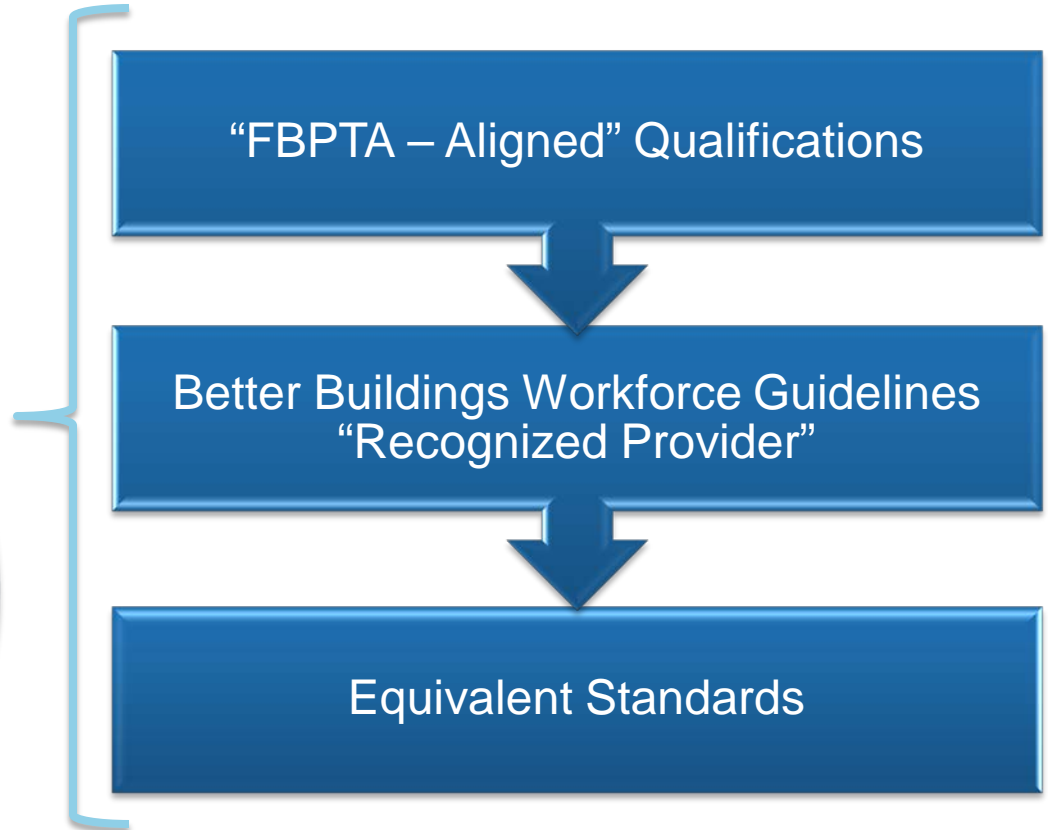
**"FBPTA – Aligned" credentials**

# “BBWG-Recognized” Credentialing



**BBWG Recognized** = 3<sup>rd</sup> Party accreditation; crosswalked to FBPTA

# Implementing with Contractors





# Implementing with the Federal Workforce

- Tools to help feds incorporate BBWG into their career planning
  - [FEDSAT](#) identifies skill gaps and links to free training resources
  - [Accelerate FM](#) – identify role and appropriate courses / credentials
- Adding requirements into existing HR documents for diverse roles
  - GSA 1176 Property Manager position description
  - DoD Energy Manager consolidation
- Occupational series for sustainability-related professionals
  - CEQ and OPM working with agencies to consider occupational series for Energy Manager, and, perhaps Building Operations Professional
- Contact information:
  - Brian Gilligan – [brian.gilligan@gsa.gov](mailto:brian.gilligan@gsa.gov); (202) 596-4179



**Certificate of Proficiency in  
Benchmarking**

**Deane Evans, New Jersey Institute of  
Technology**

# *Certificate of Proficiency in Benchmarking*

A training and certificate program for benchmarking building energy and water performance using ENERGY STAR Portfolio Manager®  
[www.benchmarkingcertificate.org](http://www.benchmarkingcertificate.org)

CPB is sponsored and administered by the New Jersey Institute of Technology, with funding and support from CBEI.



## Overview

- What the Certificate of Proficiency in Benchmarking is
- Where are there benchmarking ordinances
- How and where it was birthed
- What is in the curriculum and training program
- What is the credential
- Who is part of the CPB team



# *The Certificate of Proficiency in Benchmarking*

## WHY

Growing legislation for Benchmarking and Disclosure across the U.S.  
Growing public interest for understanding and improving building energy performance

## WHAT

Certificate of Proficiency in Benchmarking is a free online training program with 7 modules

The training program teaches users how to properly use Portfolio Manager

## VALUE

Students who complete the training can register to take the credential exam  
For a nominal fee, if pass the credential exam, receive the credential which is recognized in Portfolio Manager

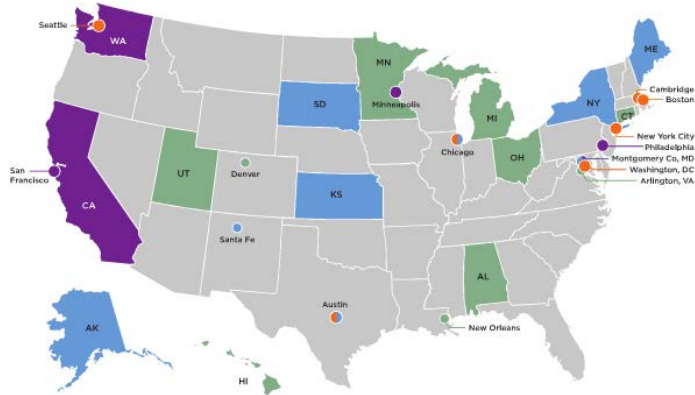
## HOW

USEPA; the Cadmus Group, NJIT, NRDC, & CBEI

An advisory board of Benchmarking subject-matter experts was also involved in developing the training



### U.S. Building Benchmarking and Transparency Policies





  
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- Commercial policy adopted
- Commercial & multifamily policy adopted
- Public buildings benchmarked
- Single-family transparency adopted

# *The Curriculum*

- Portfolio Manager 101 and 201 are introductions to portfolio manager, providing navigation assistance.
- Portfolio Manager 301 demonstrates for participants how to use some of the more advanced features of Portfolio Manager.
- Portfolio Manager 401 address the current quality assurance/quality control issues, looking at methods to insure high quality data.
- Portfolio Manager 501 will walk students through the process of actually entering the data in to Portfolio Manager.



# The Curriculum

- Portfolio Manager 101 and 201 are introductions to portfolio manager, providing navigation assistance.

## Learning Objectives



- In this session, you will become familiar with EPA's ENERGY STAR® Portfolio Manager® tool and learn how to:
  - Navigate Portfolio Manager
  - Add a property and enter details about it
  - Enter energy and water consumption data
  - Share properties
  - Generate performance reports to assess progress
  - Respond to data requests



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INNOVATION



# The Curriculum

- Portfolio Manager 301 demonstrates for participants how to use some of the more advanced features of Portfolio Manager.

## Learning Objectives



- In this session, you will learn how to:
  - Edit property information
  - Correct or update property use details
  - Address data quality alerts
  - Add data using the spreadsheet upload feature
  - Set baselines and goals on the Planning tab
  - Analyze progress and performance with Portfolio Manager Reports
  - Use the Sustainable Buildings Checklist



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# The Curriculum

- Quiz questions to test your knowledge are integrated throughout the text and interactive learning enhancements.

### Terms and Concepts to Know

Terms and Concepts to Know

- Energy Use Intensity (EUI)
- Site and source energy
- Benchmarking as the best energy management practice and compliance with benchmarking and disclosure mandates.
- Examples of Non-Ratable Property Use Types.

Energy Use Intensity (EUI)

Site and source energy

Benchmarking

You will need to enter the energy consumption for the data center separately in Portfolio Manager.

- True
- False

# The Curriculum

- The intention of Portfolio Manager 401 is to address the current quality assurance/quality control issues, looking at methods to insure high quality data.

## Learning Objectives



- Portfolio Manager Help and [www.energystar.gov/buildingshelp](http://www.energystar.gov/buildingshelp)
- Portfolio Manager Training Resources
- Portfolio Manager Terms, Benchmarking Tips, and Common Challenges
- ENERGY STAR Building Upgrade and Financial Resources

# *The Curriculum*

- Engaging the student in a lesson where they can use their knowledge from the previous 4 lessons, Portfolio Manager 501 will walk students through the process of actually entering the data in to Portfolio Manager.
- How to Apply for Energy Star Certification is an additional module that walks users through this process.
- The Multi Family Housing module provides assistance on how to benchmark this property type.



# *The Curriculum*

To qualify to take the Certificate of Proficiency in Benchmarking exam, candidates must have completed the four training modules within the previous 12-month period.

If I enter consumption data with a date gap/overlap in to Portfolio Manager it will trigger a data \_\_\_\_\_.

type your text here



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# *The Credential*

- The certificate will have a unique identification number that can be used to distinguish yourself as a certified benchmarking professional in the ENERGY STAR Portfolio Manager™ and local disclosure compliance documents (if applicable).
- The fee for initial Certificate of Proficiency in Benchmarking® exam is \$250 for (up to) three exam attempts and 2-year credentialing period.
- The fee for renewal of Certificate of Proficiency in Benchmarking® training and exam is \$100 for (up to) three exam attempts and additional 2-year credentialing period.



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# ***USDOE Building Energy Asset Score Tool Training***

- The curriculum for this program is designed to ensure that participants can learn and then demonstrate basic proficiency in the skills needed to generate an Asset Score for a representative commercial building – all through an online platform available on-demand, 24/7.
- 4 professional development hours and 4 CEUs available
- All learning modules are available to the public at no cost.
- The fee for initial Certificate of Proficiency in the Asset Score Tool exam is \$275 for (up to) three exam attempts and 2-year credentialing period.



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# ***Certificate of Proficiency in Benchmarking + Asset Score***

- **Certificate of Proficiency in Benchmarking**
  - [benchmarkingcertificate.org](http://benchmarkingcertificate.org)
- **Asset Score**
  - [assetscorecertificate.org](http://assetscorecertificate.org)



# *Certificate of Proficiency in Benchmarking + Asset Score*

*Questions??*





# Discussion

# Thank you!