

# **FBPTA Core Competencies & Curriculum** *Overview of the 2013 Annual Update*

**Federal Facilities Council  
Committee on Workforce Development**

*Brian Gilligan, PE, LEED-AP*  
*Sustainability Program Manager, GSA*




# What is the 2013 Annual Update?

Facilities Management Institute  
**Implementing the Federal Buildings  
Personnel Training Act (FBPTA)**

[Site Map](#) | [Accessibility](#) | [Contact](#)

[Home](#) | [News](#) | [Events](#) | [Forum](#) | [FBPTA & Downloads](#) | [Core Competency Web Tool](#) | [Resources \(links etc\)](#) | [About](#) | [FAQ](#)



**Update to FBPTA  
Core  
Competencies  
and  
Recommended  
Curriculum**

2013 FBPTA Annual Update  
The 2013 update to the  
FBPTA Competencies and  
Curriculum is [here](#).

**2013**

Calendar

« July »

S	M	T	W	T	F	S
		1	2	3	4	5
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

News

[Seeking Topics for an FMI Community of Practice](#)  
[2013 FBPTA Annual Update is online](#)  
[Training on FMI Web Tool](#)  
[Brief on FBPTA Program](#)  
[Recommended Curriculum - June 14, 2012](#)

Upcoming Events

Overview of the 2013 FBPTA Annual Update - FFC	07/24/2013 - 09:00
CECOS FM Week	07/31/2013 - 13:00
Health in Buildings Discussion with GSA NCR Leadership	08/13/2013 - 11:30

**FBPTA - 2013 Annual Update**  
The attached document provides an overview and explanation for the 2013 annual update of the FBPTA Core Competencies and Recommended Curriculum.  
[Read more](#)

**FBPTA Training Resource Submission Form**  
Submitted by [brian.gilligan](#) on Fri, 05/03/2013 - 11:59  
The Federal Buildings Personnel Training Act requires GSA to identify "qualifications" (i.e.



# Agenda

- Competency Model guidance
- Recommended Curriculum approach
- Update on GSA's implementation efforts
- Future steps - Competency Advisory Group
- Get you to participate!





# “Functional Roles” Defined by FBPTA

**FMI: Federal Buildings Personnel**  
~50,000 Civil Servants; + Contractors  
(Program – 1 FTE, \$200K Annual Budget)

GSA: Mostly GS-1176, Building Managers

Facility  
Management

Energy

Management

GSA: Mostly O&M Contractors

Facility / Equipment  
O&M

**FAI: Federal Acquisition Personnel**

~75,000 Civil Servants  
(Program – 12 FTE, \$10M+ Annual Budget)

Specialized skills required to varying degrees by all



**FEDERAL HIGH-PERFORMANCE GREEN BUILDINGS**



# Overview of Competency Update

Primary Responsibility							Primary Responsibility						
Competency Area (12)	Core Competency (43)	FM	EM	O&M	High Priority	Early Career	Competency Area (12)	Core Competency (43)	FM	EM	O&M	High Priority	Early Career
1) Management of Facility O&M	1a Building Systems				Yes	Yes	6) Design	6a Planning					
	1b Building Interior				Yes*	Yes		6b Infrastructure					
	1c Building Exterior				Yes*	Yes		7a Regulations and Requirements					Yes
	1d Other Facility Systems					Yes		7b Implementation				Yes	Yes
2) Performance of Facility O&M	2a HVAC Systems				Yes	Yes	7) Sustainability	7a Regulations and Requirements					Yes
	2b Electrical / Mechanical Systems				Yes	Yes		7b Implementation				Yes	Yes
	2c Life Safety Systems				Yes*	Yes	8) Water Efficiency	8a Regulations, Goals, Best Practices					Yes
	2d General Building Maintenance					Yes		8b Water Audits				Yes	Yes
	2e Best Practices & Innovation				Yes	Yes		9a Initiate					Yes
3) Technology	3a Technology Solutions				Yes		9) Project Management	9b Execute					Yes
	3b Building Automation Systems				Yes			9c Closeout					Yes
	3c Maintenance Management Systems				Yes			9d Training					Yes
4) Energy Management	4a Demand Reduction				Yes	Yes	10) Business, Budget & Contracting	10a Total Cost of Ownership				Yes	Yes
	4b Assess Initial Conditions				Yes	Yes		10b Life Cycle Assessment				Yes	
	4c Commissioning and ESPC				Yes	Yes		10c Contracting					Yes
	4d Coordinate with Public Utilities					Yes		10d Budget Formulation, Execution				Yes	Yes
	4e Planning, Project Management					Yes	11) Leadership & Innovation	11a Communication					Yes
5) Safety	5a Basic Requirements					Yes		11b Personnel					Yes
	5b Infrastructure					Yes		11c Innovation				Yes	Yes
	5c Contractor Program Oversight					Yes		11d Enterprise Knowledge				Yes	
	5d Occupant Interface					Yes	12) Performance Measures	12a FBPTA				Yes	Yes
								12b Acquiring Data					Yes
								12c Establishment and Implementation					

# How the Update is Organized

Parent Organization					Certified Energy Manager (CEM)	Energy Manager in Training (EMIT)	Building Energy & Sustainability Technician (BEST)	Certified Measurement & Verification Professional (CMVP)
Qualification Name					<a href="http://www.aeecenter.org/documents/ndes.cfm?pageid=3330">http://www.aeecenter.org/documents/ndes.cfm?pageid=3330</a>	<a href="http://www.aeecenter.org/documents/ndes.cfm?pageid=3333">http://www.aeecenter.org/documents/ndes.cfm?pageid=3333</a>	<a href="http://www.aeecenter.org/documents/ndes.cfm?pageid=3338">http://www.aeecenter.org/documents/ndes.cfm?pageid=3338</a>	<a href="http://www.aeecenter.org/documents/ndes.cfm?pageid=3686">http://www.aeecenter.org/documents/ndes.cfm?pageid=3686</a>
Website								
Facility Management Role Competencies					5% / 8% / 9%	0% / 0% / 0%	0% / 0% / 0%	28% / 40% / 47%
Energy Management Role Competencies					85% / 85% / 100%	79% / 79% / 93%	79% / 79% / 93%	88% / 88% / 93%
Operations and Maintenance Role Competencies					24%	0% / 0% / 0%	9% / 16% / 0%	24% / 43% / 47%
Inherently a shared responsibility of more than one role								
Federal References, Local Knowledge, or Agency-Specific Processes; must be verified by supervisor								
Competency Area (12)	Core Competencies (43)	Performance (232)	Early Career	System Includes: HVAC, Electrical (and Standby Generator), Lighting, Mechanical/Plumbing (and Fire protection systems), Vertical transportation, Structural, Roofing, Building Envelope.				
1. Management of Facilities O&M	Building Systems (High Priority / High Value)	3. Demonstrate familiarity with Building Systems.						✓
		2. Demonstrate ability to work with Facilities team to assess a facility's need for building systems.						✓
		3. Demonstrate ability to oversee the acquisition, installation, and operation of building systems.	FM	Yes				✓
		4. Demonstrate ability to work with Facilities Team to establish practices and procedures.	FM	Yes				✓
		5. Demonstrate ability to work with Facilities Team to determine and administer the allocation of building systems' resources.	FM	Yes				✓
		6. Demonstrate ability to monitor and evaluate how well building systems perform.	FM	Yes				✓
		7. Demonstrate ability to manage corrective, preventive and predictive maintenance.	FM	Yes	✓			✓
		8. Demonstrate ability to work with Facilities Team to develop emergency						

Links: [Overview of FBPTA 2013 Annual Update](#), and [Competency Model & Recommended Curriculum](#)

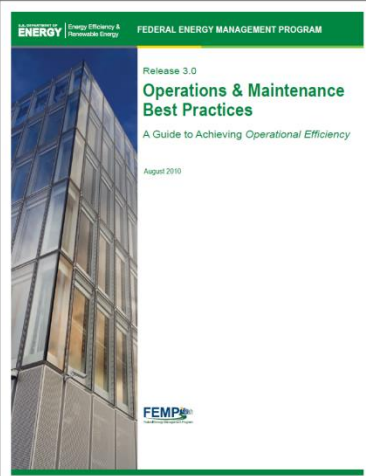


**FEDERAL HIGH-PERFORMANCE GREEN BUILDINGS**



# Understanding “Federal References”

<b>Best Practices and Innovation</b>  <i>(High Priority / High Value)</i>	1. Demonstrate knowledge of the “Ten Steps to Operational Efficiency” <i>FEMP O&amp;M Best Practices Guide Rev 3.0 pg 291.</i>	FM/FO/EM	FEMP	Yes	
	2. Demonstrate knowledge of (DOE/PNNL) “Retuning Project” and how it could be applied.	FM/FO/EM	FEMP	Yes	<a href="http://www1.eere.energy.gov/femp/pdfs/omguide_complete.pdf">http://www1.eere.energy.gov/femp/pdfs/omguide_complete.pdf</a> - Click once to follow. Click and hold to select this cell.
	3. Demonstrate knowledge of and the ability to perform “predictive maintenance” <i>FEMP O&amp;M Best Practices Release 3.0 pg 59</i>	FM/FO/EM	FEMP	Yes	
	4. Demonstrate knowledge of ALL types of commissioning, and what is required in the Energy Independence and Security Act 2007 (EISA). <i>FEMP O&amp;M Best Practices Release 3.0 pg 7.1 AND EISA SEC 432.</i>	FM/FO/EM	FEMP	Yes	
	5. Demonstrate knowledge of metering and sub-metering for energy and water and how they contribute to systems optimization.	FM/FO/EM		Yes	
	6. Demonstrate knowledge of O&M Frontiers like those found in <i>FEMP O&amp;M Best Practices Guide Rev 3.0 pg 287.</i>	FM/FO/EM	FEMP	Yes	
	7. Demonstrate knowledge of advanced trouble-shooting techniques on a systems-wide basis.	FM/FO/EM		Yes	



- Federal References – unique to Federal government
- Local knowledge – unique to an individual location
- Agency-specific – unique to an individual agency
- Cannot claim credit from qualifications alone



# Recommended Curriculum

Parent Organization					
Qualification Name					
Website					
Facility Management Role Competencies			FM		
Percentages indicate share of "Performances" covered (All FM / All FM less Safety / FM Early Career Only)					28% / 40% / 47%
Energy Management Role Competencies			EM		
Percentages indicate share of "Performances" covered (All EM / All EM less Safety / EM Early Career Only)					88% / 88% / 93%
Operations and Maintenance Role Competencies			FO		
Percentages indicate share of "Performances" covered (All O&M)					24% / 43% / 47%
Inherently a shared responsibility of more than one role			FM/FO/EM		
Federal References, Local Knowledge, or Agency-Specific Processes; must be verified by supervisor				FED REF	
Click on links to see website references)					
Competency Areas (12)	Core Competencies (43)	Performances (232)			Early Career?
1. Management of Facilities O&M	Building Systems (High Priority / High Value)	1. Demonstrate familiarity with Building Systems.	FM	Yes	✓
		2. Demonstrate ability to work with Facilities team to assess a facility's need for building systems.	FM	Yes	✓
		3. Demonstrate ability to oversee the acquisition, installation, and operation of building systems.	FM	Yes	✓
		4. Demonstrate ability to work with Facilities Team to establish practices and			

Certified Measurement & Verification Professional (CMVP)

<http://www.aee-center.org/databases/index.cfm?pageid=5006>

## Description:

Association of Energy Engineers, in cooperation with the Efficiency Valuation Organization (EVO), has established the Certified Measurement and Verification Professional program with the dual purpose of recognizing the most qualified professionals in this growing area of the energy industry, and raising the overall professional standards within the measurement and verification field.





# Defining a Recommended Curriculum

## Vendor Evaluation Criteria

- Near-term: Process to confirm alignment
- Long-term goal: Formal conformity model

**Accreditation:** Given to a program or institution by an objective evaluating body as meeting a set of standards.

**Accreditation**  
*FBPTA or 3rd Party*

## Provider Program Requirements

- JTA-based learning objectives
- Syllabus, lesson plan
- Assessment of results
- Adequate staff / facilities

**Individual Credential:** Given to an individual by an objective evaluating body as meeting a set of standards.

**FBPTA “Qualifications”**  
*Certificate Programs / Certifications*  
*Professional Registrations / Licenses*

## Competencies

- FBPTA
- Agency-specific

**FBPTA Competency Model**  
*Core Competencies and performances*  
*Based on Job Task Analyses and community review*



# Qualification Review Process

## Step 1

- Agency identifies a qualification

## Step 2

- Qualification provider prepares [FBPTA Submission Form](#), and
- submits form and materials to [AskFMI@gsa.gov](mailto:AskFMI@gsa.gov)

## Step 3

- 3<sup>rd</sup> Party Contractor reviews and provides an evaluation
- Qualification provider allowed a response

## Step 4

- Submission and final evaluation are posted on FMI for comment

## Step 5

- Updates are made to FBPTA Curriculum and Core Competency Web Tool

3<sup>rd</sup> Party evaluations to begin August 2013

# GSA – FBPTA Implementation

## Facility Management Institute

*GSA - OFHPGB*

- Maintain the FBPTA Competency Model
- Maintain Recommended Curriculum
- Provide technical assistance to agencies
- Develop FMI website and Core Competency Web Tool

## Human Capital Planners

*GSA - Chief People Officer*

- Maintain National GS-1176 Classification
- Implement PD / Performance Plan updates
- Coordinate with Collective Bargaining Units
- Coordinate with National CHCO Council

## Practitioners

*PBS - FMSP*

- Conduct baseline assessment of personnel
- Identify training priorities from assessment
- Establish and implement training plans
- Provide feedback on competency model, curriculum and tools

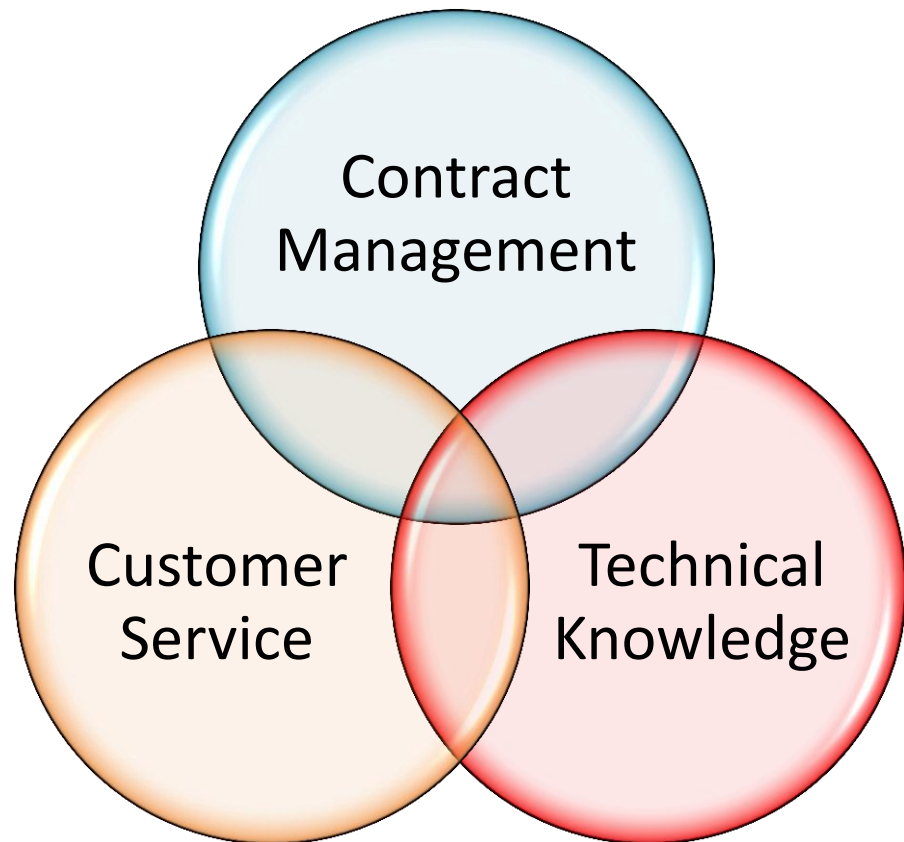




# GSA - Organizational “Coverage”

Competency Area	Core Competency	Performance	Fed Ref	Property Management			Energy Management			Environmental Compliance			Fire Life Safety			Asset Management			Project Management			Leasing Asset Manager		
				Early GS 9-11	Journey GS 12-13	Master GS 14-15	Early GS 9-11	Journey GS 12-13	Master GS 14-15	Early GS 9-11	Journey GS 12-13	Master GS 14-15	Early GS 9-11	Journey GS 12-13	Master GS 14-15	Early GS 9-11	Journey GS 12-13	Master GS 14-15	Early GS 9-11	Journey GS 12-13	Master GS 14-15	Early GS 9-11	Journey GS 12-13	Master GS 14-15
1. Management of Facilities O&M	a. Building Systems (High Priority / High Value)	1. Demonstrate familiarity with Building Systems.[1]		P				A								P								
		2. Demonstrate ability to work with Facilities team to assess a facility's need for building systems.		P				A					A			P								
		3. Demonstrate ability to oversee the acquisition, installation, and operation of building systems.		A	P			A					A			P								
		4. Demonstrate ability to work with Facilities Team to establish practices and procedures.		A	P			A								A								
		5. Demonstrate ability to work with Facilities Team to determine and administer the allocation of building systems' resources.		A	P			A								P								
		6. Demonstrate ability to monitor and evaluate how well building systems perform.		P				P								P								
		7. Demonstrate ability to manage corrective, preventive and predictive maintenance.		P				A								A								
		8. Demonstrate ability to work with Facilities Team to develop emergency procedures for building systems.		A	P						P			P										
		9. Demonstrate knowledge of how to implement disaster recovery plans for building systems as required.		A	P						P			P										
	b. Building Interior	1. Demonstrate knowledge of how to evaluate building structures and permanent interiors.		P												P								
		2. Demonstrate ability to manage the service/repair requests and maintenance and cleaning needs of building structures and permanent interior elements.		P												P								
		3. Demonstrate ability to evaluate furniture and equipment performance.		A												A								
		4. Demonstrate ability to manage the maintenance and cleaning of furniture and equipment.		A												A								
	c. Building Exterior	1. Demonstrate familiarity with managing grounds and exteriors, parking structures, site utilities, landscaping and grounds, exterior envelope (roof, brick, masonry, etc.).		P				A								P								
		2. Demonstrate ability to assess the effect of climate and extreme environmental conditions.		P				A								P								
		3. Demonstrate ability to evaluate the performance of grounds and exterior elements.		P												P								
		4. Demonstrate ability to assess the need for alterations in grounds and exterior elements.		A	P											P								
		5. Demonstrate ability to manage the maintenance and custodial needs of grounds and exterior elements.		P												P								
	d. Other Facility Systems	1. Demonstrate ability to manage equipment and infrastructure for vehicles and vehicle maintenance.		A												A								
		2. Demonstrate ability to work with Security Personnel as required. [2]		P												A								

# To Drive Employee Requirements



Position description and Performance Plans for GS-1176 property manager position need greater technical emphasis:

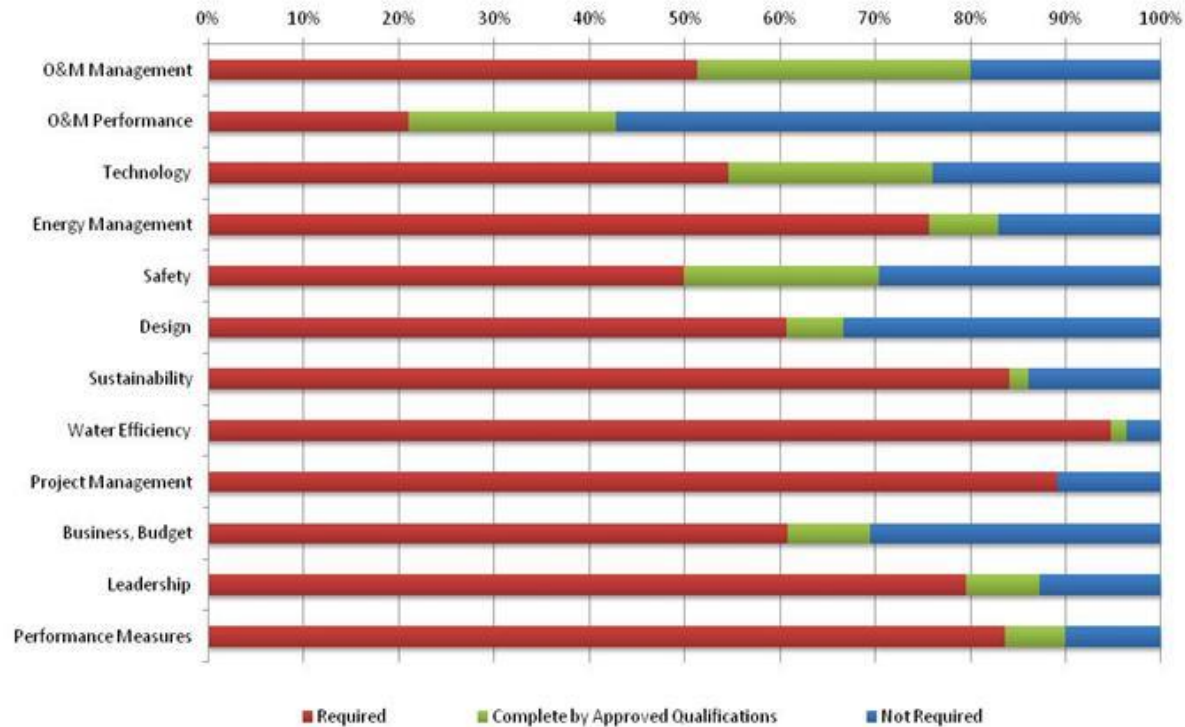
- Operate & maintain HVAC systems
- Technology - BAS, CMMS
- Demand reduction strategies
- Design “Infrastructure”
- Managing sustainability programs
- Life cycle cost analysis (LCCA)





# Early Assessment Results

Assessment Results by Core Competency Area, All Grades





# Early Assessment Results

Workforce Qualifications			
Certifying Entity	Qualification	Count	Percent of Workforce
BOMI	Real Property Administrator (RPA)	156	15%
BOMI	Facilities Management Administrator (FMA)	119	12%
LEED	Green Associate	65	6%
BOC	Building Operator Certification (BOC)	62	6%
IFMA	Facility Management Professional (FMP)	52	5%
BOMI	Facilities Management Certificate (FMC)	38	4%
GMU	FM Certificate	31	3%
BOMI	Systems Maintenance Technician (SMT)	24	2%
BOMI	Systems Maintenance Administrator (SMA)	24	2%
BOMI	Property Administrator Certificate (PAC)	21	2%
LEED	LEED AP Operations & Maintenance (O+M)	20	2%

Grade Band	Employees Claiming a Qualification	
	Count	Percent of Grade Band's Workforce
GS11 & Below	61	19%
GS12/13	317	43%
GS-14/15	3	13%
Total	381	37%





# Competency Advisory Group

<u>Agency</u>	<u>FRPP Total SF</u>	<u>FRPP Total O&amp;M Cost</u>
Department of Defense	2,130,004,000	\$14,628,672,000
General Services Administration	419,664,000	\$6,306,664,000
Veterans Affairs	154,616,000	\$1,018,566,000
Energy	129,000,000	\$2,144,370,000
Interior	104,158,000	\$1,418,388,000
State	74,074,000	\$1,095,874,000
Justice - JMD	70,401,000	\$614,316,000
Agriculture	58,780,000	\$889,943,000
Homeland Security	48,609,000	\$458,923,000
NASA	45,786,000	\$561,735,000
Health and Human Services	36,142,000	\$515,894,000
Transportation	28,050,000	\$430,856,000
Tennessee Valley Authority	26,939,000	\$77,329,000
Labor	25,228,000	\$127,580,000
Smithsonian	12,053,000	\$256,411,000
Commerce	7,850,000	\$91,796,000
Treasury	6,128,000	\$139,717,000
National Archives and Records Administration	5,270,000	\$54,296,000
State (USAID)	5,227,000	\$74,932,000
Environmental Protection Agency	4,293,000	\$55,388,000
National Science Foundation	2,369,000	\$34,552,000
	3,394,641,000	\$ 30,996,202,000

- Comprised of reps from major landholding agencies
- Updated [membership list](#) maintained on FMI.gov



# Advisory Group - Tasks

- Priority on developing “High-Priority / High-Value” competencies
- Differentiate performances:
  - Distinctions between early career and master proficiency?
  - Distinctions where functional roles overlap?
  - When / what experience is necessary for proficiency
- How do we address small, distributed locations?
- Consider “sector” working groups
  - Healthcare, specialized labs, secure locations, collections
- Better define continuing education, contractor compliance



# FBPTA - Next Steps

- Stakeholder input on Competency Model – Aug 12th
- Start 3<sup>rd</sup> Party Qualification Reviews – Aug 15<sup>th</sup>
- Advisory Group Meetings – Aug 28th
- Curriculum update submissions – Aug 31<sup>st</sup>
- Final updates to Model and Curriculum – Sep 30<sup>th</sup>



# Community of Practice

- Beginning in September 2013
- Present topics of interest to Facility Managers
- Start with a focus on “Federal References”
- Develop a constituency, build a resource library
- Please [suggest topics!](#)



**Pacific Northwest**  
NATIONAL LABORATORY



**National Institute of  
BUILDING SCIENCES**  
*An Authoritative Source of Innovative Solutions for the Built Environment*



**NATIONAL ACADEMY OF SCIENCES**  
1863–2013 • Celebrating 150 Years of Service to the Nation



**FEDERAL HIGH-PERFORMANCE GREEN BUILDINGS**

# Conclusion

- Questions / discussion?
- Give feedback
  - Competency model and recommended curriculum are drafts
  - Post comments on [FMI thread](#), or, email [AskFMI@gsa.gov](mailto:AskFMI@gsa.gov)
- Get involved - visit [www.fmi.gov](http://www.fmi.gov) and register!
- My contact information: [brian.gilligan@gsa.gov](mailto:brian.gilligan@gsa.gov)

