### Better Buildings Workforce Guidelines

**Energy Manager and Federal Facility Manager**

2014 Building Technologies Office Peer Review

<table>
<thead>
<tr>
<th>Technical Standards</th>
<th>Skills Standards</th>
<th>Curricula &amp; Training</th>
<th>Industry-Recognized Certifications</th>
<th>Third-Party Accreditation</th>
<th>Driving Market Demand</th>
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</table>

**Framework for a Better Buildings Workforce**

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LBNL
Project Summary

Timeline
Start date: August 2013
Planned end date: December 2014

Key Milestones
1. Present draft plan for energy manager and facility manager to CWCC Board of Direction (11/7/13)
2. Coordinate with NIBS to convene subject matter experts (SMEs) for the development of job task analyses (3/20/14)
3. Contribute to the development of the energy manager certification and federal facility manager certificate “schemes” (9/15/14)

Budget
Total DOE $ to date: $197K
Total future DOE $: $200K for related training program

Target Market/Audience
• Energy managers in commercial sector
• Federal facility managers (including contractors)
### Project Summary (continued)

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Contractors</th>
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<tbody>
<tr>
<td>NIBS</td>
<td>Resource Dynamics</td>
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<tr>
<td>GSA</td>
<td>SOLID</td>
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<td>DoD</td>
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<td>DOE/FEMP</td>
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<td>NREL</td>
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### Project Goals

Provide technical contributions to development of Better Buildings Workforce Guidelines as follows:

1. Energy manager certification – including energy management system business processes
2. Federal facility manager certificate – satisfying requirements of Federal Buildings Personnel Training Act (FBPTA) and including relevant energy management system business processes
Purpose and Objectives

Problem Statement

• Absence of consistent national guidelines in commercial workforce credentialing programs related to energy use
• Proliferation of competing certifications and certificate-based training of varying quality
• Federal agencies need to demonstrate compliance with the Federal Buildings Personnel Training Act (FBPTA)

Target Market and Audience for LBNL Scope of Work (2 credentials)

• Energy managers in the commercial sector
• Federal facility managers, including contractors (~ 50,000)

Planned Outcomes

• Energy manager – ANSI/ISO/IEC 17024 accredited certification suitable for licensing into the market for use in the commercial sector
• Federal facility manager – certificate and training program accredited to IREC 14732 and widely available to federal employees and contractors
Purpose and Objectives

Planned Contribution to Energy Efficiency

• Introduce consistent standards of practice into qualification of energy and facility management qualifications for commercial and federal sectors
• Support improved building energy performance, market value and recognition
• Provide path for professional advancement, including analysis of equivalency for selected military classifications

Outputs

*Phase I (through 9/14 using current funding) will result in*

• Defined knowledge and skills
• Requirements for education and work experience leading to energy manager certification and federal facility manager certificate

*Phase II (through 12/14) will result in*

• Map and identify gaps in currently available open access or federal training relevant to federal certificate requirements
• Develop implementation plan for federal certificate program in cooperation with BTO, GSA, FEMP, and DoD
Better Buildings Workforce Guidelines Approach

**NIBS** CWCC** develops Better Buildings Workforce Guidelines

- **Industry Technical Standards**
  - Job task analyses***
  - Guidelines for certification programs (common certification schemes)
  - Guidelines for certificate programs (content outlines and learning objectives)

- Which are implemented by:
  - Industry certification bodies
  - Certificate program providers

- Which seek accreditation under appropriate standard:
  - ISO/IEC 17024
  - IREC 14732 and/or others TBD

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*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)
Approach

Develop certificate/certification programs based on requirements of national accreditation standards

Key Issues

• Energy manager – includes an emerging topic in this field, energy management systems business processes
• Federal facility manager – provides government agencies a method to demonstrate compliance with FBPTA

Distinctive Characteristics

• Energy manager certification to be licensed to multiple certification bodies – unique approach to ISO 17024-accredited programs
• Federal facility manager certificate suitable for use across all federal agencies; mapped to relevant military occupations
Progress and Accomplishments

Discoveries
No significant barriers have been discovered

Accomplishments
Progress is meeting planned milestones

Project Contribution to Energy Efficiency
• Credentials will improve consistency and rigor for energy managers and federal facility managers, contributing to more effective energy management across the commercial sector
• Federal facility manager certificate will provide agencies access to a one-stop shop for training to fulfill the intent of the FBPTA – improving energy performance of federal sites

Awards/Recognition
• Energy manager certification and federal facility manager certificate will be recognized by ANSI and IREC accreditation, respectively
• Recognition will be provided to qualified personnel via the resulting credentials
Project Integration and Collaboration

Project Integration

• Energy manager – several private-sector certification bodies are involved to ensure market acceptance
• Federal facility manager – GSA and other relevant agencies are involved to ensure agency acceptance
• Requirements of Veteran Skills to Job Act will be considered

Partners, Subcontractors, and Collaborators

• Partners/Collaborators - NIBS, DoD, DOE/FEMP, NREL, GSA
• Contractors - Resource Dynamics, SOLID

Communications

• External communication managed by NIBS under DOE direction
• Presentations:
  • NIBS CWCC Board of Advisors and Board of Direction
  • SME workshops (energy manager and federal facility manager)
Next Steps and Future Plans – Energy Manager

1. Next steps
   a. Participate in JTA validation study
   b. Collaborate with partners and SMEs to define certification scheme

2. Risks
   a. Number of entities involved
   b. Resulting certification scheme will not be accepted in market
   c. Mitigation of risk managed by NIBS and DOE through CWCC Board of Direction and relevant stakeholders

3. Impacts
   • Intermediate-term – strong market acceptance of resulting certification scheme improves number and breadth of energy efficiency actions undertaken in commercial sector
Next Steps and Future Plans – Federal Facility Manager

**Develop Draft JTA**
- Early Career Federal Facility JTA
  - March 18-20
- FPTA Competency Model
  - Completed
- Crosswalk / Mapping (GSA/DOE)
  - April 2014

**Develop Final JTA**
- Validation Study
  - All Federal Agencies
  - Additional Priority/Weighting
  - May 2014
- Review Results of Validation Study
  - (15 JTA SMEs)
  - Modify/Accept Validation Results
  - June 2014
- Revise Scope of Certificate
  - (15 JTA SMEs)
  - Based on Final JTA Committee
  - June 2014
- Follow-Up Webinar(s)
  - (15 JTA SMEs)
  - Review Crosswalk
  - Modify JTA
  - Respond to Questions
  - Conduct Initial Priority/Weighting
  - May 2014

**Develop Certificate**
- Content Outline + Learning Objectives
  - (3 members of JTA committee)
  - w/Instructional Design Expert
  - August 2014
- Certificate program training curriculum and tests
  - (Meeting basic requirements of FBPTA)
  - FY 2015
- Approve Scope and JTA for Certificate
  - (NIBS CWCC Board with CHCO+RPA sub-committee)
  - July 2014

**Core FBPTA Certificate**
- FY 2015
REFERENCE SLIDES
**Project Budget**: $197K

**Variances**: Per request of the NIBS Board of Direction, project plan revised to focus on Federal Facility Manager and Federal interagency value, rather than market-based facility manager

**Cost to Date**: $90.5K

**Additional Funding**: anticipate $200K later in FY14

### Budget History

<table>
<thead>
<tr>
<th>August – FY2013 (past)</th>
<th>FY2014 (current)</th>
<th>FY2015 (not planned)</th>
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<tbody>
<tr>
<td>DOE</td>
<td>Cost-share</td>
<td>DOE</td>
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<tr>
<td>$197,000</td>
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** anticipated $200K additional later in the FY
## Project Plan and Schedule

### Project Schedule

<table>
<thead>
<tr>
<th>Project Start: August 2013</th>
<th>Completed Work</th>
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<tbody>
<tr>
<td>Projected End: December 2014</td>
<td>Active Task (in progress work)</td>
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<tr>
<td></td>
<td>Milestone/Deliverable (Originally Planned)</td>
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<tr>
<td></td>
<td>Milestone/Deliverable (Actual)</td>
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<table>
<thead>
<tr>
<th>FY2013</th>
<th>FY2014</th>
<th>FY2015</th>
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<tbody>
<tr>
<td>Q1 (Oct-Dec)</td>
<td>Q2 (Jan-Mar)</td>
<td>Q3 (Apr-Jun)</td>
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<tr>
<td>Q4 (Jul-Sep)</td>
<td>Q1 (Oct-Dec)</td>
<td>Q2 (Jan-Mar)</td>
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<td>Q3 (Apr-Jun)</td>
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</tbody>
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### Current/Future Work

1. **Q1** Present draft written plan for energy and facility management workforce guidelines to Board of Direction
2. **Q2** Coordinate with NIBS to convene the energy and facility management SMEs
3. **Q3** Prepare draft JTAs, gap analysis of GSA core competencies and CP EnMS
4. **Q3** Contribute to final JTAs based on survey results and other inputs
5. **Q3** Draft development plan for Federal Facility Manager certificate program
6. **Q4** Develop draft Certificate(s) Content Outline/Learning Objective
7. **Q4** Draft crosswalk of existing training against certificate learning objectives; identification of gaps
8. **Q4** Present plan to NIBS CWCC Boards for review and approval