Topics

1. Green Building Mandates & Implications for VA
2. Available Green Building Certifications
3. VA Green Building Program Milestones
4. Future Plans
1. Green Building Mandates & Implications for VA

- **Federal Mandates - Existing Buildings**

  - **EO 13514, sec. 2(g), iii:**
    
    “ensuring that at least 15% of the agency’s existing buildings (above 5,000 gsf) and building leases (above 5,000 gsf) meet the Guiding Principles by fiscal year 2015 and ....”

  - **Options:**
    
    **EB-1**
    
    comply all guiding principles listed in the EO 13423

    **EB-2**
    
    initiate 3rd party certification process prior to Oct 1, 2008 AND get the certification developed by ANSI-accredited organization.

    LEED & Green Globe
1. Green Building Mandates & Implications for VA

**Federal Mandates - Major Projects**

- **EO 13514, sec. 2(g), ii:**
  
  “ensuring that all new construction, major renovation, or repair and alteration of Federal Buildings complies with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings……”

- **10 CFR Part 433.6, (b), (2):**
  
  “The cost of the building or major renovation is at least $2,500,000 (in 2007 dollars, adjusted for inflation)”

- **Options:**
  
  - **NC-1:** comply all guiding principles listed in the EO 13423
  - **NC-2**
    
    initiate 3rd party certification process prior to Oct 1, 2008 AND get the certification developed by ANSI-accredited organization.
1. Green Building Mandates & Implications for VA

- **Implications for VA**

  - Owns + Lease for VA
    - 160 million sqft (98% medical space)
    - Over 3,000 buildings ≥ 5,000 sqft

  - Sustainable Building Mandate by 2015
    - 24 million sqft
    - ≥ 450 buildings
      - Should be Green Buildings

  - All Major Construction Project Should be Green:
    - Many obstacles for HC facilities
    - LEED HC (only 35 pts with meeting GP’s)
2. Available Green Building Rating Systems

- **Certification developed by ANSI-accredited organization:**
  - LEED (Leadership in Energy and Environmental Design)
  - Green Globe

- **Other Green Building Rating System:**
  - Earth Craft House (Residential)
  - Energy Star
  - ASHRAE Standard 189.1
  - BREEAM (Building Research Establishment Environmental Assessment Method - UK)
  - Green Star (Green Building Council Australia)
3. VA Green Building Program Milestones

- 1st Sustainable Building survey (using GP’s) - 2008
- Pilot Project (Ann Arbor VAMC) started June, 2008
  - Dual certification (LEED & GG)
  - received GG certification, no LEED certification yet

- Green Globe certifications for 21 Facilities (131 bldgs) - 2009

Green Globe certification for San Diego VAMC
# 3. VA Green Building Program Milestones

<table>
<thead>
<tr>
<th>VISN</th>
<th>MEDICAL CENTER</th>
<th>CERTIFICATION</th>
<th># OF BLDGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Brooklyn, NY</td>
<td>3 Green Globes</td>
<td>Entire Campus</td>
</tr>
<tr>
<td>6</td>
<td>Richmond, VA</td>
<td>3 Green Globes</td>
<td>Entire Campus</td>
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<tr>
<td>6</td>
<td>Asheville, NC</td>
<td>3 Green Globes</td>
<td>Entire Campus</td>
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<td>Salisbury, NC</td>
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<td>Entire Campus</td>
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<td>2 Green Globes</td>
<td>Entire Campus</td>
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<td>7</td>
<td>Atlanta, GA</td>
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<td>Entire Campus</td>
</tr>
<tr>
<td>7</td>
<td>Augusta (Uptown)</td>
<td>3 Green Globes</td>
<td>Entire Campus</td>
</tr>
<tr>
<td>7</td>
<td>Birmingham</td>
<td>3 Green Globes</td>
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<td>8</td>
<td>West Palm Beach, FL</td>
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<td>Entire Campus</td>
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<tr>
<td>11</td>
<td>Ann Arbor, MI</td>
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<td>Entire Campus</td>
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<tr>
<td>12</td>
<td>Milwaukee, WI</td>
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<tr>
<td>16</td>
<td>Houston, TX</td>
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<tr>
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<td>Shreveport, LA</td>
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<td>Little Rock, AR</td>
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<td>Portland, OR</td>
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<tr>
<td>21</td>
<td>Oakland Mental Health Clinic</td>
<td>LEED Certified</td>
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<tr>
<td>22</td>
<td>LA ACC, CA</td>
<td>2 Green Globes</td>
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<tr>
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<td>Entire Campus</td>
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<tr>
<td>22</td>
<td>San Diego</td>
<td>3 Green Globes</td>
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3. VA Green Building Program Milestones

<table>
<thead>
<tr>
<th>LEED Certified Buildings</th>
<th>CERTIFICATION</th>
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<tr>
<td>Reno Regional Office</td>
<td>LEED Silver</td>
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<tr>
<td>Ft. Harrison Regional Office</td>
<td>LEED Certified</td>
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<tr>
<td>VISN 8 office (Bay Pine, FL)</td>
<td>LEED Silver</td>
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<tr>
<td>Oakland MH bldg</td>
<td>LEED Certified</td>
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<tr>
<td>Pittsburg VAMC bldg 69</td>
<td>LEED Certified</td>
</tr>
<tr>
<td>Boise Regional Office</td>
<td>LEED Gold</td>
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</table>

Boise VBA Regional Office – LEED Gold
3. VA Green Building Program Milestones

- **2nd SB Survey in 2009**
  - Result – none of VA buildings meet all GP’s
  - Retro-Cx and day-lighting are common deficiencies

- **Sustainable Building Survey using Energy Star Portfolio Checklist – 2010**
  - same result with 2009 survey

- **Sustainable Building survey (GG tool) – 2011**
  - GBI was selected by competitive bid process
  - ALL 173 Medical Centers – main hospital building
  - 5 VBA Office Buildings
  - Selected 11 campuses (170+) for GG and GP certifications
  - 103 buildings received 3 or 4 Green Globes
  - Expect 100+ buildings to receive GP certifications
Integrated Green Building Team were organized

Some Selected sites organized integrated green building team. Team members are:

- Facilities Manager
- Environmental Manager
- Industrial Hygienist
- Energy Manager, facility
- Energy Manager, regional
- A/E consultant to this project
- Environmental Services
- Grounds
- Central Plant
- Infection Control
- HVAC / Electrical Technicians
- Purchasing
- Materials Handling
- Contractors

Improved communication
Raise Awareness
Recognitions
3. VA Green Building Program Milestones

Can’t rely on self certified scores:
3. VA Green Building Program Milestones

- Selection Criteria for certifications:
  - Green Building Survey Results
  - Energy Star Ratings (above 75)
  - On-site Renewable Energy
  - Square Footage
  - Willingness – VAMC (sites)
4. Future Plans

- **Ex. Buildings**
  - GP Pilot will be completed April 2012
  - 2\textsuperscript{nd} Round GP certification will start April 2012
  - Annual Sustainability Survey will be performed –
    - find & correct deficiencies
  - Improve Energy Star ratings
    - Accuracy: square footage
    - Energy improvements: ECMs, renewable installations, etc.
  - Advanced Metering
    - Improve Monitoring - Reporting
    - Improve facility energy management program
4. Future Plans

- **Ex. Buildings**
  - **Green Routine Pilot**
    - A building is only as sustainable as its users
    - Promote Employee and Veteran awareness
  - VA is positioned to meet the mandate aggressively:

<table>
<thead>
<tr>
<th></th>
<th>VA FY10 Actual</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
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<tbody>
<tr>
<td>% GSF</td>
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<td>14</td>
<td>14.5</td>
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<tr>
<td>% Buildings</td>
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<td>7.5</td>
<td>12</td>
<td>15</td>
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<tr>
<td>VA # Buildings</td>
<td>131</td>
<td>251</td>
<td>375</td>
<td>468+</td>
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</table>
4. Future Plans

- **Major and Minor projects**
  - Have to meet 5 Guiding Principles (21 sub requirements)
  - Use 3rd party certifications (2 GG or LEED silver)
Question?

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- Visit web: www.green.va.gov