



## Guiding Principles for Existing High-Performance Sustainable Buildings – Resolving Sticky Issues

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## FEMP Mission

To enable federal agencies to comply with the Guiding Principles for High-Performance Sustainable Buildings and apply best sustainable management practices by equipping agency officials and key personnel with actionable information, tools, and project implementation methods and other needed support, in pursuit of excellence in environmental and energy-efficient performance for federal agencies.



## FEMP Program Strategy

- **Education:** Fan out across the country to conduct site assessments and provide workshops on Guiding Principles
- **Leverage:** Partner with other DOE offices, federal agencies, nonprofits, and private industry to leverage limited resources
- **Make it easier:** Streamline and standardize requirements, processes, and implementation tools
- **Make the business case:** Reinforce the business case for sustainability in government

# Guiding Principles for Existing Buildings

- I. Employ integrated assessment, operation, and management principles
- II. Optimize energy performance
- III. Protect and conserve water
- IV. Enhance indoor environmental quality
- V. Reduce environmental impact of materials



## Targets

- Achieve 30% reduction in vehicle fleet petroleum use by 2020
- Achieve 26% reduction in potable water and 20% reduction in industrial, landscaping, and agricultural water consumption by 2020
- Comply with new EPA stormwater-management guidance
- Achieve 50% recycling and waste diversion by 2015
- Ensure that 95% of all applicable procurement contracts meet sustainability requirements
- Ensure that 15% of buildings meet the *Guiding Principles for HPSB* by 2015
- Design all new federal buildings that begin the planning process by 2020 to achieve zero-net energy by 2030
- Pursue cost-effective and innovative strategies such as highly reflective and vegetated roofs



## Section (g)

(iii) ensuring that at least 15% of the agency's existing buildings (above 5,000 gross square feet) and building leases (above 5,000 gross square feet) meet the Guiding Principles by fiscal year 2015 and that the agency makes annual progress toward 100 percent agency conformance.

**FEMP training focuses on meeting the 15% goal.**



## Regional Workshops for Federal Agencies

- Dallas, Texas – February 15
- Washington DC – March 14
- Seattle, WA – April 5
- Denver, CO – May 17

## Past Workshops

- Department of Energy – FY 2011

## Technical Assistance

- Webinars
- Agency specific workshops
- Follow-up point of contact
- FEMP resources:

[http://www1.eere.energy.gov/femp/program/sustainable\\_buildings.html](http://www1.eere.energy.gov/femp/program/sustainable_buildings.html)



**For each Guiding Principle:  
Say it.  
Do it.  
Prove it.**





# GENERAL OBSERVATIONS



- Agencies have increasing awareness of the Guiding Principles (GP).
- Agencies at all levels support sustainability.
- Sustainability is often implemented by multiple organizations and individuals within an agency.
- Staff resources vary from experienced staff to no staff available.
- Agencies are beginning to evaluate their buildings and enter compliance into the Portfolio Manager HPSB Checklist or other agency tracking tools.
- The HPSB Checklist embedded within Portfolio Manager is generally liked, but improvements are required.

**Federal High Performance Sustainable Buildings Checklist**  
The purpose of this checklist is to assist Federal agencies with assessing their existing building stock against the Guiding Principles for Sustainable Existing Buildings, and for reporting on the sustainability data element of the Federal Real Property Profile (FRPP). Click [here](#) for instructions on completing the checklist.

Agency: Department of Energy (DOE)  
Department/Region:  
Federal Campus:  
Building Name: Test Site 1  
Federal Real Property ID: 01  
Checklist Manager:  [save](#)  
Sustainability Path: Guiding Principles [edit](#)

**Guiding Principle Completion**

Category	Percentage
Yes	69%
No	0%
In Process	19%
Not Assessed	12%

Guiding Principle Completion: 69% Yes

Last edit date: 08/09/2010 [Upload & View Compliance Documents on File](#) [Generate Report](#)

✓ Indicates that "YES" has been selected for all guiding principles within a section.

**Employ Integrated Design** ✓ **Optimize Energy Performance** **Protect and Conserve Water** **Enhance Indoor Environmental Quality** **Reduce Environmental Impact of Materials** ✓

**Employ Integrated Assessment, Operation, and Management Principles** [Exit](#) [Save](#)

Guiding Principle	Action Required	Compliance Verification Documents on File	Responsible Team Member	Notes / Comments
<b>Integrated Assessment, Operation, and Management</b>				
Integrated 1	Use an integrated team to develop and implement policy regarding sustainable operations and maintenance.	<input type="checkbox"/> Team roster or equivalent <input checked="" type="checkbox"/> Completed "Responsible Team Member" fields <input type="checkbox"/> Other: <input type="text"/>	Enter Name : James Sandia	<a href="#">View Note/Comment</a>
<a href="#">References and Resources</a>				
Integrated 2	Establish operational performance goals for energy.	<input checked="" type="checkbox"/> EMS Manual that incorporates	Enter Name :	<a href="#">Enter Note/</a>

# ISSUES AND CONCERNS

## General Issues

- Can redundancy be minimized or eliminated among Executive Order (EO) requirements, Guiding Principles, Energy Independence and Security Act (EISA), and other federal requirements?
  - EISA audits: every 4 years
  - Condition assessments: every 5 years
  - GP commissioning: every 4 years
- Agencies should be able to use the same documentation to meet multiple compliance requirements wherever possible.
- Agencies should be able to use the same database to meet multiple tracking and reporting requirements wherever possible.





## General Issues

- What is meant by “major renovation”?
  - Which set of Guiding Principles (GP) should be used?
- Portfolio Manager and the HPSB Checklist must be user friendly.
- Agency-independent validation:
  - What is meant by “independent validation”?
  - Is it a requirement?
- Can individual agencies make a determination to accept third-party program certification as equivalent to GP compliance beyond the grandfathering timeline?

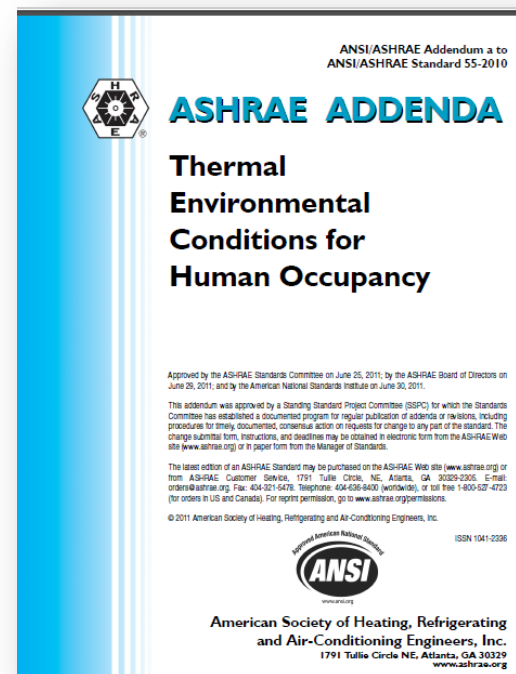


## General Issues

- Exemptions:
  - Can there be a unified and consistent exemption procedure for buildings?
  - Who can grant an exemption?
  - There are different categories of buildings such as “High-Energy Mission Support” facilities.
- For how long does a building’s “GP 100% Compliance” rating last?
- When is “percentage reduction from an established baseline” no longer desirable or achievable?
  - Should there be an alternative path to compliance, such as by performance standard?

## General Issues

- Additional expenditures may be required to meet the GP:
  - Energy efficiency
  - Lighting performance
  - Renewable energy
  - Water-use reduction
  - Indoor air quality (ASHRAE 55 and 62)
  - Measurement and verification (meter installation)
- Need a process to submit and respond to changes to the GP for quick action (modifications and interpretations)
- Uncertainty means delay and additional cost.



## GP-Specific Issues

- EPA's Portfolio Manager does not have a category for laboratories, prisons, other building types of interest to agencies.
- "Quality energy (or water) data" is different from "quality metered data."
  - Quality energy (or water) data provides flexibility for an agency to show 20% reduction for buildings that made major changes before building was metered.
  - If an agency must use "quality metered data" but does not yet have buildings metered, the agency will likely be unable to meet the Energy Efficiency GP by 2015.





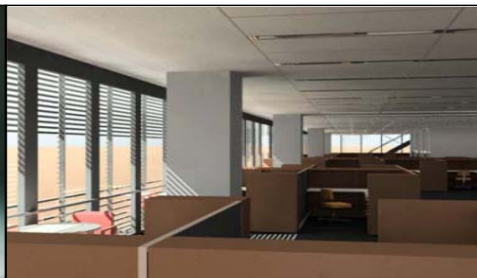
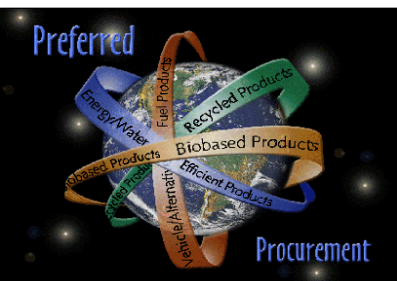
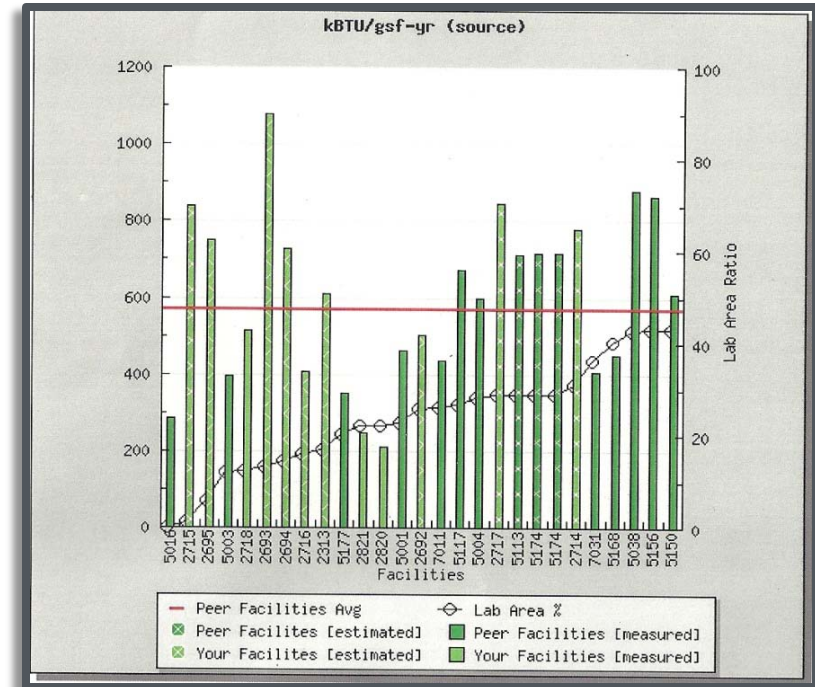
## GP-Specific Issues

- Buildings built to the 2006 UPC/IPC should meet the GP.
- Continue to allow the single site meter for potable water use alternative.
- Do not require building-level potable water meters (they are not cost effective for many sites).
- What is considered “potable water” for outdoor water use?



## GP-Specific Issues

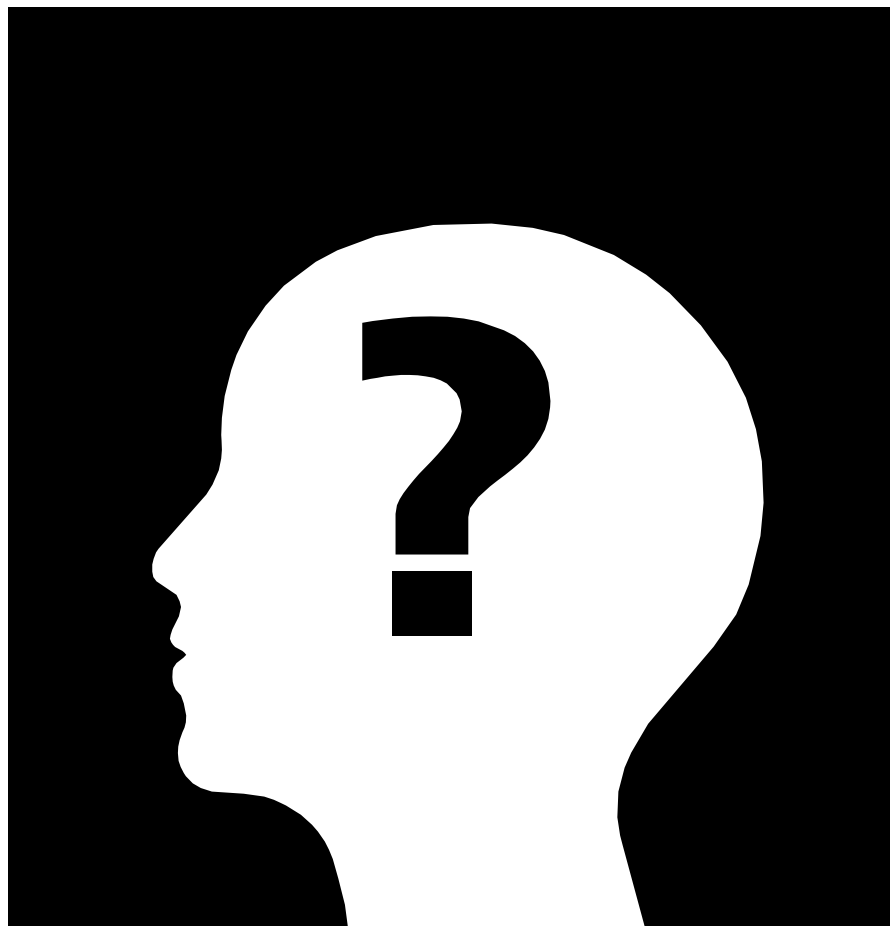
- Provide multiple paths to achieve benchmarking.
- Need definitions, specifications, or acceptable product labels to comply with GP for “Low-Emitting Materials” & “Environmentally Preferable Products.”



- Many agencies are **RED** and struggling to meet the 15% goal by 2015:
  - Encourage flexibility; one size does not fit all.
  - Do not make existing requirements more difficult to achieve.
  - Set achievable interim targets.
  - Maintain baseline dates.
  - Eliminate requirements covered elsewhere or peripheral to sustainability.
  - Provide quick response and interpretation.
  - Make tracking and reporting compliance simple and straightforward.
- Agencies at all levels:
  - Understand the intent of the GP.
  - Support sustainable buildings and sites.
  - Want to do the right thing.

***Let's help them be successful!***

# Questions?





# Thank You!

## Contact Information

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