

2016 Guiding Principles for Sustainable Federal Buildings Updates Crosswalk:

Existing Buildings

Prepared by the U.S. Department of Energy
Federal Energy Management Program

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2016 Guiding Principles for Sustainable Federal Buildings Comparison to 2008 version: *Existing Buildings*

Executive Order 13693, Planning for Federal Sustainability in the Next Decade, March 19, 2015, called for revisions to the Guiding Principles for Sustainable Federal Buildings (Guiding Principles). On February 26, 2016, The White House Council on Environmental Quality, Office of Federal Sustainability, issued the 2016 version of the Guiding Principles (GP) in two documents: “Determining Compliance with the Guiding Principles for Sustainable Federal Buildings” (GP Compliance Document), which outlines evaluation criteria on which the Guiding Principles will be scored, and the “Guiding Principles for Sustainable Federal Buildings and Associated Instructions,” which provides instructions, guidance and recommended practices. The 2016 version of the Guiding Principles supersedes all previous versions of the Guiding Principles. This document was developed by Federal Energy Management Program to help explain and highlight the differences between the new and previous Guiding Principles for Existing Buildings based on the evaluation criteria included in the GP Compliance Document.

Comparison of Scoring and Applicability

	2016 Guiding Principles for Existing Buildings	2008 Guiding Principles for Existing Buildings
1.	Goal is to have at least 15% (by number) of buildings or square feet meet the GPs by 2025.	Goal was to have at least 15% (by number) of buildings meet the GPs by 2015.
2.	Should be used to qualify any applicable existing building over 5,000 square feet that has not crossed the "substantial progress" threshold.	Can be used through Sept. 30, 2017 to qualify any applicable existing building over 5,000 square feet where "substantial progress" has already been made.
3.	Twelve out of 18 metrics are required—eight that are specified as required plus four additional. Agencies are encouraged to meet as many elements and sub-elements as possible.	All GPs must be met.
4.	Any metric determined to be "not applicable" cannot be counted toward the 12 required metrics.	"Not applicable" was not addressed.
5.	GPs do not pertain to leases.	GPs did pertain to leases.
6.	Life cycle cost effectiveness applies to all individual elements.	Life cycle cost effectiveness applied to select elements.
7.	Campus or installation-wide protocols and policies can be used to demonstrate compliance with the GPs.	Did not specifically address the use of campus or installation-wide protocols.
8.	Introduces a new sub-element for "Health and Wellness" and a sixth Guiding Principle, "Assess and Consider Climate Change Risks."	Did not specifically address health and wellness nor climate change risks.
9.	Buildings that met the 2008 GPs are in compliance through 2025, as long as they meet ongoing EISA requirements; grandfathered buildings should also add the sixth GP, "Assess and Consider Climate Change Risks," within four years.	Buildings that were registered for third-party certification before October 2008, and achieved certification were considered compliant with the GPs.

Updates to Requirements

Category	2016 Guiding Principles for Existing Buildings Evaluation Criteria	Major Updates from 2008 GPs
I. Integrated Assessment, Operation, and Management Principles		
1. Integrated Assessment, Operation, and Management Principles	<p>Through an integrated process and team, assess building and operating conditions and identify areas for improvement; establish operational goals for environmental performance; and incorporate goals into building management.</p> <p>[Required]</p>	<ol style="list-style-type: none"> 1. Removes requirement to incorporate goals into an Energy Management System (EMS).
2. Commissioning	<p>Commissioning reports for certification purposes must be completed within two years prior to certification date. Recommissioning should be completed at least every four years thereafter to optimize building performance. Use commissioning agents who are independent of the design and construction or operating team. Commissioning should be consistent with EISA section 432 and FEMP commissioning guidance.</p> <p>[Required]</p>	<ol style="list-style-type: none"> 1. Experienced commissioning provider must be independent of the project design, construction, and operation teams. 2. Commissioning reports can be no older than two years from the date of certification. 3. Recommission every 4 years.

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II. Optimize Energy Performance		
3. Energy Efficiency	<p>A. Ensure:</p> <ol style="list-style-type: none"> 1. The building has an ENERGY STAR rating of 75 or higher, OR 2. Energy use is 20% below the FY 2015 energy use baseline, OR 3. Energy use is 30% below the FY 2003 energy use baseline, OR 4. Energy efficiency is 30% better than the current ASHRAE 90.1 standard, AND <p>B. Use energy efficient products, as required by statute.</p> <p>[Required]</p>	<ol style="list-style-type: none"> 1. Adds option for 20% reduction from FY2015 baseline year. 2. Increases reduction from 20% to 30% from 2003 baseline year. 3. Replaces ASHRAE 90.1 2007 with “current” version. 4. Increases reduction from “current” ASHRAE version from 20% to 30%. 5. Removes Labs21 benchmarking tool as an option for laboratory buildings.
4. Renewable and Clean Energy	<p>Evaluate and implement, where appropriate, life cycle cost-effective renewable energy projects on-site; consider long-term offsite renewable sources and RECs; and utilize clean and alternative energy where possible.</p>	<ol style="list-style-type: none"> 1. Adds RECs and long-term offsite renewable sources. 2. Adds clean and alternative energy.
5. Metering	<p>Install building level meters for electricity, natural gas, and steam; install advanced or standard meters</p>	<ol style="list-style-type: none"> 1. No significant change.

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	as appropriate.	
6. Benchmarking	Compare building performance with energy performance benchmarks at least annually, preferably using ENERGY STAR Portfolio Manager; regularly monitor building energy performance against historic performance data and peer buildings.	<ol style="list-style-type: none"> 1. Removes reference to equivalent benchmarking tools such as the Labs21 tool for laboratory buildings.
III. Protect and Conserve Water		
7. Indoor Water Use	<p>A. Install building level water meters, reduce water use 20% below FY 2007 baseline, and use water efficient products, OR</p> <p>B. Install building level meters, conduct an analysis of water use, identify and repair leaks, eliminate single pass cooling, optimize cooling tower operations, and use water efficient products.</p> <p>[Required]</p>	<ol style="list-style-type: none"> 1. Replaces performance based compliance option with performance and prescriptive options. 2. Requires building-level water meters. 3. Updates baseline year in option A from 2003 to 2007. 4. Removes option to reduce water use from a baseline estimated by fixture performance. 5. Requires water evaluations for option B. 6. Requires the identification and repair of leaks for option B. 7. Prohibits single pass cooling in option B. 8. Removes option to reduce indoor and outdoor water by 20% if only one meter.

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8. Outdoor Water Use	<p>A. Install water meters for irrigation systems serving more than 25,000 square feet of landscape, AND</p> <p>B. Either:</p> <ol style="list-style-type: none"> 1. Use water efficient landscaping, OR 2. Limit potable water use for irrigation to 50% or more below conventional practices using methodologies from (but not the numeric requirements contained in) ASHRAE standard 189.1-2014 section 6.5.1, or current comparable standard, to calculate water use of conventional practices. 	<ol style="list-style-type: none"> 1. Replaces measured performance based compliance option with prescriptive options and calculations. 2. Requires installation of water meter for irrigation systems serving more than 25,000 sf² of landscaping. 3. Removes option to reduce water use from a baseline measured by actual consumption. 4. Adds ASHRAE 189.1 methodology for calculating a reduction compared to conventional practices. 5. Removes requirement to use irrigation contractors who are certified through a WaterSense-labeled program.
9. Alternative Water	Consider alternative sources of water where cost-effective and permitted by local laws and regulations.	<ol style="list-style-type: none"> 1. New GP requirement.
10. Stormwater Management	Employ strategies that reduce storm water runoff and discharges of polluted water offsite to protect the natural hydrology and watershed health.	<ol style="list-style-type: none"> 1. Removes reference to EISA Section 438.

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IV. Enhance Indoor Environmental Quality		
11. Ventilation and Thermal Comfort	Meet the current ASHRAE 55 and either 62.1 or 62.2 standards for ventilation and thermal comfort. [Required]	<ol style="list-style-type: none"> 1. Replaces ASHRAE Standards 55-2004 and 62.1-2007 with "current" versions. 2. Adds ASHRAE 62.2 for Low-Rise Residential.
12. Daylighting and Lighting Controls	Maximize opportunities for daylighting in regularly occupied space, automatic dimming controls or accessible manual controls, task lighting, and shade and glare control.	<ol style="list-style-type: none"> 1. Replaces prescriptive requirement to meet automated lighting controls, AND daylighting OR occupant controlled lighting with the goal to "maximize" these items. 2. Removes specific target for daylighting. 3. Removes specific target for occupant controlled lighting. 4. Adds shade and glare control.

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13. Indoor Air Quality	<p>Develop and implement an indoor air quality policy that considers the following: moisture control, use of low emitting materials and products with low pollutant emissions, necessary protocols to protect indoor air quality during construction and in the finished building, prohibition of smoking in any form inside and within 25 feet of all building entrances, operable windows, and building ventilation intakes, and use of integrated pest management techniques.</p>	<ol style="list-style-type: none"> 1. Realigns moisture control, use of low-emitting materials and products, tobacco smoke control and integrated pest management under new category, "Indoor Air Quality." 2. Adds protocols to protect indoor air quality during construction and in the finished building. 3. Removes requirement to use EPA-registered pesticides. 4. Removes reference to "Façade renovations" and "dew point analysis" for moisture control.
14. Occupant Health and Wellness	<p>Where feasible, promote opportunities for voluntary increased physical movement of building occupants such as making stairwells an option for circulation, active workstations, fitness centers and bicycle commuter facilities; and support convenient access to healthy dining options, potable water, daylight, plants, and exterior views.</p>	<ol style="list-style-type: none"> 1. New GP requirement.

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V. Reduce the Environmental Impact of Materials		
15. Material Content and Performance	<p>Procure products that meet the following requirements where applicable:</p> <ul style="list-style-type: none"> A. RCRA section 6002, AND B. FSRIA section 9002, AND C. Federally Recommended Specifications, Standards and Ecolabels or are on the Federal Green Procurement Compilation for other green products, as appropriate, AND D. Avoid ozone depleting compounds and high GWP chemicals. <p>[Required]</p>	<ol style="list-style-type: none"> 1. Realigns recycled, bio-based content, environmentally preferable products, and ozone depleting compounds under “Material Content and Performance.” 2. Removes reference to the Federal Green Construction Guide. 3. Removes the recycled content target of 10% for “other products.” 4. Removes reference to rapidly renewable resources and certified sustainable wood products for “other products.” 5. Adds reference to the Federally Recommended Specifications on the Federal Green Procurement Compilation for other green products. 6. Adds Global Warming Potential (GWP) chemicals. 7. Removes reference to the Montreal Protocol and Title VI of the Clean Air Act Amendments.
16. Waste Diversion	<p>Where markets exist, provide reuse and recycling services for building occupants and divert at least 50% of non-hazardous non-construction related materials from landfills.</p> <p>[Required]</p>	<ol style="list-style-type: none"> 1. Adds specific performance target to divert at least 50% of non-hazardous, non-construction related materials.

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17. Materials Management	Where markets exist, divert at least 50% of construction and demolition materials from landfills.	1. Adds specific performance target to divert at least 50% of construction and demolition materials.
VI. Assess and Consider Climate Change and Risks – NEW		
18. Climate Resilience and Adaptation	<p>A. Determine long-term mission criticality of the physical asset and operations to be housed in the facility, AND</p> <p>B. Evaluate climate change impacts, including wildfire, based on mission criticality and cost, AND</p> <p>C. Implement no and low cost actions to increase climate resilience.</p> <p>[Required]</p>	1. New GP requirement.

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