

## *From Policy to Practice: Promoting Green Buildings*

The Federal government has been involved in many elements of green building. As shown in Table 2, it has programs covering such areas as energy efficiency, renewable energy, indoor air quality, water conservation, recycled content, and other environmentally preferable building products, construction and demolition debris, heat island reduction, and non-point source water pollution, as well as diverse programs targeting such audiences as residential builders, commercial builders, community planners, homeowners, schools, and the general business community. These programs cover a wide range of environmental design topics and audiences, but have never been coordinated to form a single comprehensive, unified Federal green building program or standard.

**Table 2:**  
**Selected Federal Green Building Programs<sup>33</sup>**

<b>Agency</b>	<b>Program</b>	<b>Website</b>	<b>Description</b>
Multi-agency effort	Whole Building Design Guide (WBDG)	<a href="http://www.wbdg.org">www.wbdg.org</a>	Gateway to up-to-date information on 'whole building' design techniques and technologies
DOE	Federal Energy Management Program (FEMP)	<a href="http://www.eere.energy.gov/femp">www.eere.energy.gov/femp</a>	Aids Federal agencies to reduce energy and water use and build green
DOE	Building Technologies	<a href="http://www.eere.energy.gov/buildings">www.eere.energy.gov/buildings</a>	Provides resources for energy efficiency and renewable energy
DOE	Smart Communities Network	<a href="http://www.sustainable.doe.gov">www.sustainable.doe.gov</a>	Provides resources on sustainability
EPA	Green Building	<a href="http://www.epa.gov/greenbuilding">www.epa.gov/greenbuilding</a>	Portal website to many sites listed here
EPA	Construction Sector Compliance Assistance	<a href="http://www.epa.gov/compliance/assistance/sectors/construction.html">www.epa.gov/compliance/assistance/sectors/construction.html</a>	Provides construction industry compliance assistance information
EPA	Indoor Environments	<a href="http://www.epa.gov/iaq">www.epa.gov/iaq</a>	Conducts research and outreach and develops guidelines to improve indoor environments
EPA	Environmentally Preferable Purchasing	<a href="http://www.epa.gov/oppt/epp">www.epa.gov/oppt/epp</a>	Provides resources to aid Federal purchasing of green products
EPA	Water Efficiency Program	<a href="http://www.epa.gov/owm/water-efficiency">www.epa.gov/owm/water-efficiency</a>	Provides resources to increase residential, commercial, institutional, and industrial water efficiency, including WAVE water management software
EPA	Non-point Source Pollution	<a href="http://www.epa.gov/owow/nps/urban.html">www.epa.gov/owow/nps/urban.html</a>	Provides guidance on how to reduce stormwater runoff from the built environment
EPA	Construction and Demolition (C&D) Debris	<a href="http://www.epa.gov/epaoswer/non-hw/debris">www.epa.gov/epaoswer/non-hw/debris</a>	Provides resources to reduce, reuse and recycle C&D debris
EPA	Comprehensive Procurement Guidelines	<a href="http://www.epa.gov/cpg">www.epa.gov/cpg</a>	Provides information and guidelines on the Federal purchase of recycled-content products
EPA	Brownfields	<a href="http://www.epa.gov/brownfields">www.epa.gov/brownfields</a> <a href="http://www.epa.gov/swerosps/bf/sustain.htm">www.epa.gov/swerosps/bf/sustain.htm</a>	Provides grants and resources for safe development of polluted sites and supports sustainable brownfields redevelopment

<sup>33</sup>This is not meant to be an all-inclusive list of Federal programs related to green building, but rather to highlight those of most relevance to the greening of Federal facilities.

EPA/DOE	EnergyStar®	<a href="http://www.energystar.gov">www.energystar.gov</a>	Partnership and labeling program for energy-efficient commercial and residential buildings and building products
EPA/DOE	Labs 21	<a href="http://www.epa.gov/labs21century">www.epa.gov/labs21century</a>	Provides information on improving the environmental performance of labs
USDA	Biobased Products and Bioenergy Coordination Council	<a href="http://www.ars.usda.gov/bbcc/">www.ars.usda.gov/bbcc/</a>	Provides a forum for coordinating, facilitating, and promoting research, development, transfer of technology, commercialization, and marketing of biobased products and bioenergy
NIST	Building for Environmental and Economic Sustainability (BEES)	<a href="http://www.bfrl.nist.gov/oae/software/bees.html">www.bfrl.nist.gov/oae/software/bees.html</a>	Measures environmental and economic performance of building products through life cycle assessment and life cycle costing

Some agencies have developed detailed specifications and guidance to put sustainability principles into practice. The military services, for example, are combining their specifications into one set of Unified Facilities Guide Specifications (UFGS).<sup>34</sup> With input from FEMP, the UFGS technical committees are now revising existing standards to incorporate the FEMP and ENERGY STAR® efficiency criteria for installed equipment.<sup>35</sup> In general, however, Federal agencies maintain their own individual sets of master specifications or guidance, incorporating LEED™ or other green building requirements in different ways and to varying degrees.

***Recognizing the need for a comprehensive and consistent approach to incorporating green requirements into Federal building, EPA is teaming up with the Whole Building Design Guide (WBDG)<sup>36</sup> to provide model green construction solicitation provisions and specification language. Currently in draft form, the model green construction guides will help Federal building project managers meet various mandates, as established by statute and Executive Orders, as well as EPA and DOE program recommendations (e.g., regarding recycled content products, energy efficiency, indoor air quality, persistent bioaccumulative toxics, and water stewardship.) In addition, model language will assist Federal agencies in using the LEED™ rating system as a metric. Organized according to the Construction Specifications Institute's MasterFormat™, the tool will provide users with multiple, performance-based options, allowing for flexibility in application. Although promising, this work has yet to be completed and put into use throughout the Federal government.***

<sup>34</sup>See the Construction Criteria Base at <<http://www.ccb.org/ufgs/ufgs.html>>.

<sup>35</sup>For example, several sections of the Unified Facilities Guide Specs now incorporate, directly or by reference, the FEMP criteria for energy-efficient chillers, lighting and (ENERGY STAR®) exit signs, transformers, and some motors.

<sup>36</sup>The web-based WBDG, a multi-agency effort managed by the National Institute of Building Sciences (NIBS), provides design guidance to Federal agencies in fulfillment of seven design principles, one of which is sustainability. (The others are accessibility, aesthetics, cost-effectiveness, functionality, productivity, and security/safety.) See <<http://www.wbdg.org>>.