*Revised-January 2009

The USGBC State and Local Government Tool Kit has been revised to remove references to USGBC programs and certification procedures that are no longer in force. None of the other information within the Tool Kit has been updated or modified.

For current information on LEED initiatives and implementation in the government sectors, please visit: www.usgbc.org/government
U.S. GREEN BUILDING COUNCIL
State and Local Government Tool Kit

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The U.S. Green Building Council

The U.S. Green Building Council (USGBC) is the nation’s foremost coalition of leaders from across the building industry who are working to promote buildings that are environmentally responsible, profitable, and healthy places to live and work. By elevating building science and technology to the forefront of the building industry, USGBC is helping to create green and sustainable solutions that benefit both the bottom line and the bottom line of our communities. The Council ensures that green building practices are adopted and implemented on a large scale by organizations of all sizes, from small businesses to multi-national corporations.

The State and Local Government Committee

Within the U.S. Green Building Council, the State and Local Government Committee works to promote the integration of green building principles into state and local government policies, programs, and practices. The Committee is comprised of elected and appointed officials from state and local governments who have identified green building as a key initiative to address the needs of their residents and promote sustainable development.

Development of the State and Local Government Tool Kit

The Strategic Action Plan for 2000-2005, the U.S. Green Building Council recognized the need to work with state and local governments as strategic partners in the path for global adoption of green building practices. Early results from the American Local Government Building Survey confirmed that green building programs and policies are becoming more prevalent at the state and local levels. The Committee, with the support of the Public Technology Institute (PTI), developed a suite of tools to assist state and local governments in implementing green building programs and policies. This tool kit is designed to help state and local governments implement green building programs and policies that align with the principles and standards of the USGBC.

Survey results indicated that a reverse-audit survey of public sector green building programs was needed to develop an information clearinghouse on the existing programs. The survey identified the leading green building programs and policies and provided a framework for ongoing tracking and evaluation. The survey also identified the need for a comprehensive tool kit to support the implementation of green building programs and policies.

The tool kit includes a series of guides, case studies, and resources that provide a comprehensive overview of the state of green building in state and local government. The guides cover a variety of topics, including green building standards and frameworks, green building policies and regulations, and green building case studies. The tool kit also includes a case study of the city of New York, which has developed a comprehensive green building program that includes policies, regulations, and incentives for both public and private sector green building projects. The case study provides a detailed overview of the program, including its goals, objectives, and outcomes.

Entities surveyed:

- Arlington County, Virginia
- City of Santa Monica, California
- City of New York, New York
- City of Austin, Texas
- City of San Diego, California
- City of San Jose, California
- City of Tucson, Arizona
- Commonwealth of Pennsylvania
- City of Seattle, Washington
- City of Scottsdale, Arizona
- State of Maryland
- Office of Environmental Development (at LEED for Cities) and
- Jennifer Reiling (City of Portland)
Introduction

Green building stewardship in the public sector

In the last several years, there has been a ground swell of public sector interest in building and operating green. Throughout the United States, federal, state, county, and municipal governments have begun to incorporate energy and resource-efficient principles into public works programs. With billions of square feet of space under their direct control, state and local government agencies are major consumers of design and construction-related services. Together with a proactive federal government, they are starting to transform conventional practice in the building industry into an approach that reduces the environmental impact of construction-related activities while producing meaningful savings to the taxpayer.

By championing green building practices in real estate development, the public sector is helping to set the standard for others to follow. Through operating efficiencies that reduce water, fossil fuel, and material resource use, green public and private facilities can save millions of dollars annually. By building green through the use of appropriate materials, increased daylighting, and ensuring investments in good indoor air quality, governments can foster healthy and supportive places of work, thus reducing absenteeism, employee turnover, and improving worker performance. Governments can also use their purchasing power to expand the markets for green building products, including clean and renewable energy technologies.

Activities at the federal level

Under a 1999 Presidential Executive order and through programs fostered within many of its key agencies, the federal government has committed to building green. The Armed Services (Army, Navy, and Air Force) and the General Services Administration (GSA) together with the Department of the Interior are using the LEED Green Building Rating System™ as the standard for renovating and constructing new facilities. At present, several dozen LEED registered projects are under design or construction.

State and local leadership

Much of the early leadership and groundbreaking work in the public areas for green building was started at the local level. Since the City of Austin, TX, founded its Green Builder Program in 1991, there has been a steady progression of initiatives from various municipalities and states around the country. Cities like Seattle, WA; Portland, OR; San Diego and Santa Monica, CA; New York, NY; and states including California, Maryland, and the Commonwealth of Pennsylvania, among many others, are contributing their successful innovations to the knowledge base of greening facilities in the public sector. Over the past several years an increasing number of green building guidelines have been published and made available on the Internet. At the annual USGBC Membership Summits, state and local leaders are sharing experiences and resources in an effort to help others get started.

State and local green building programs today are taking many forms. While early programs were frequently launched by green building champions acting within government agencies, today, more programs are taking shape in legislative initiatives given form through the political will of citizen interest groups or advocacy organizations. With increasing frequency, mayors and governors are supporting the green building movement through executive orders or ordinances that commit their jurisdictions to building green. Some initiatives are voluntary, others compulsory, and a number offer building owners and developers incentives such as green building commercial and residential tax credits. Across the nation, these activities have been the product of bipartisan creativity and advocacy work.

USGBC advocacy for public sector innovation

Throughout the country, USGBC members continue to play an important role in championing green building policy. An important recent development has been the incorporation of the LEED Rating System into the basic framework for state and municipal policies. In several cases, government agencies or appointed task forces have been working directly with Council personnel to supplement the national LEED standards with appropriate local laws and regulations.

One of the USGBC’s vital functions is developing guidelines to define sustainable building and development — in the areas of design, construction, and operations. This guideline, known as the LEED Green Building Rating System, is rapidly becoming the nation’s standard for designing, constructing, and certifying sustainable buildings.
Getting Started

Introduction

How do green building programs start? In many cases, they have started with one person, with a vision or an idea that building greener can happen within their community. Green building programs have started with individuals discussing with key policy makers and asking them to make a community-based sustainability plan. These programs have then built on the success of these early efforts.

First steps: Creating a context

Sustainable design and construction programs develop in the context of broader institutional policy making. Specifically, green buildings should be viewed as a part of a community of concerns known as sustainable development which encompasses areas such as:

- Smart growth
- Infrastructure development
- Community health
- Waste management and use of recycled materials
- Materials reuse
- Local and regional economics
- Responsible energy policies
- Public open space
- Transportation policies

Assessing your opportunities and barriers

To develop a model program for green buildings in your city or state, begin by reviewing the opportunities that exist and addressing the barriers.

Opportunities — Quantify your benefits. Many programs have won advocacy or reached a critical mass or level through a promotional campaign that shows how government or society benefits.

- Expansions to green building centers in terms of measurable outcomes as a way to articulate the benefits of building green.
- Consider quantifying the value of project, in terms of dollars or cost savings, and the long-term savings due to energy and water conservation.
- Consider the potential for project to save the city money in the long run.

Example: New York City attempted to quantify the cost of a green building project in terms of the "measurable benefits" section of the LEED FOR HIGH PERFORMANCE BUILDING GUIDELINES. This tool also provides a way to measure social benefits, such as the amount of time saved by using public transportation, and the use of recycled materials to avoid new material production. This analysis helped to quantitate the benefits of the project.

Gardiner Elementary School

Gardiner is a K-8 school located in the heart of downtown St. Paul, Minnesota. The school is designed to meet the LEED Gold standard and features sustainable design elements throughout.

Carnegie Institution for Science

The Carnegie Institution for Science is a nonprofit organization dedicated to advancing the understanding of the physical and biological processes at work in the natural world.

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Barriers — assess your challenges. Anticipate some of the main barriers to building green. In your jurisdiction, awareness can help to mitigate negative reactions. For example, awareness of potential constraints includes:

- Regulatory barriers (site or environmental) — lack of green building guidance or policies can be perceived as a barrier, or may conflict with local ordinances or codes (such as using graywater, for example).
- Resource barriers — obtaining permits for innovative materials and equipment can be challenging, as they may be new or not yet available.
- Financial barriers — underwriting guidelines, the payback period often used as the determinant for implementing green measures, and related financial incentives, may be limited or nonexistent. Low-cost strategies often paid for in the long term, such as reduced operating costs, may not be considered.
- No link to savings — the administrative and financial gap between capital and operating costs is a significant barrier to linking projects. This is often seen as a barrier when projects are not linked to other financial incentives. Energy savings can be made and recorded and are the basis of the building code by providing the right incentives.

Best practice: select and prioritize

- Citizens, public servants, and government executives who want to promote scalable and sustainable development and environmental policies should take notice of the many exemplary approaches to building green. Among the legislative options are: green buildings and policies that focus on green buildings, development incentives, and tax credits. Increasingly states and municipalities are beginning to support environmentally sound policies, such as Executive Orders, which require or encourage green buildings and policies. The state of California, for example, requires LEED-certified projects over 30,000 square feet to be green buildings and policies.
- Each local program must address the political, economic, and environmental realities of its area. Local variations aside, there are some proven strategies that can be adopted as best practices. For example, a local program that identifies areas for growth, or a model program for green buildings in your city, or state, is effective when it is designed to address the barriers identified in the previous section. Assessing your opportunities and barriers is the first step.

**Get Started**

**SETUP A WORKING GROUP**

- Create a working group or task force. A working group provides a forum for discussion, idea exchange, and action. It can be a valuable tool for implementing green building policies and strategies.

**ESTABLISH AN ADVISORY GROUP**

- Establish an advisory group. An advisory group can enhance the work of a task force. Such groups can include industry representatives, government officials, and other stakeholders. By involving these individuals in the development of green building policies, the group can help to promote support for these policies by the local building industry.

**SUMMARY: Steps to consider**

- **Identify the goals and objectives**
  - Determine the scope and objectives of the green building project.
  - Identify the key stakeholders and decision makers who will be involved.

- **Consider working groups and task forces**
  - Establish a working group or task force to implement green building policies and strategies.
  - Ensure that the group includes representatives from all relevant stakeholders.

- **Develop and adopt guidelines for the jurisdiction**
  - Develop and adopt guidelines and standards for green building practices and technologies.
  - Ensure that the guidelines are implemented through local codes and regulations.

- **Join the U.S. Green Building Council**
  - Join the U.S. Green Building Council to stay informed about the latest developments in green building and to connect with other professionals in the field.
Examples of public programs that developed an integrated approach to green building policy:

- The City of Seattle, Washington, created a Sustainable Building Action Plan, identifying opportunities, barriers, and an action plan for sustainable building. The Action Plan identified the creation of a Sustainable Building Policy as a priority item, subsequently adopted by the city's building department, an inter-departmental committee of technical, policy, and program staff that established the sustainable building policy and program implementation.

- The Commonwealth of Pennsylvania established the Governor's Green Building Council.

- New York City's Informal Green Building Task Force undertook a feasibility study before launching the High Performance Building Guidelines.

- The State of Maryland's Executive Order 01-2001:182, Sustainable Maryland's Future with Zero Power, Green Buildings and Energy Efficiency. This requires the creation of a commission to make recommendations and set criteria for constructing and maintaining energy-efficient and environmentally responsible state facilities, setting goals for the purchase of "green power" and outlining a comprehensive energy conservation strategy.

Capitalizing on organizational resources

Partnering can augment efforts and create synergies, so consider combining resources and sharing visions with other appropriate organizations. Many public sector programs have looked to the government or government agencies to assist in getting green building initiatives off the ground. Often, evidence of success, partnerships, community, and individual action have evolved to collaboration with agencies around the opportunity for policy development. In some cases, such as research and development, these organizations have been involved as participants. Municipalities and public benefit organizations can often play a key role. Collectively these organizations provide leadership and help build a broad consensus for sustainable development across the board. Governments have benefited by leveraging this additional energy and expertise in pursuit of common missions.

Examples of nonprofit organizations that partnered with local governments:

- Center for Maximum Potential Building Systems in Austin, Texas, provided much of the conceptual and programming assistance for the city of Austin's Green Building Program in 1989.

- New York State's Green Building Tax Credit Legislation, an initiative emanating from Governor's Office 6010, an effort by the New York State Energy Research and Development Authority that was largely enabled by the New York State Department of Environmental Conservation, the New York City Board of Environmental Services Advocates, and the agencies of the New York State Energy Research and Development Authority.

- The State of California's partners included the Building Owners and Managers Association (BOMA).

Partnerships with other municipal and non-profit organizations:

- New York City was the beneficiary of NYCBA grant money that funded technical assistance for city-wide development as well as ongoing monitoring and reporting of energy usage on a city-wide scale as well as current research and development.

- Seattle's Office of Environment, Seattle City Light (electrical and Seattle Public Utilities (water, solid waste, and drainage) are both departments. Both these municipal utilities have served as a driving force for the development of Seattle's Sustainable Building Program, incorporating the existing climate change initiative between the program and the utilities.

What decision makers need to know

Citizen activists, community agency heads, media managers — a group of individuals or groups public or private or both — can help create a green building program by putting information and expertise at the disposal of the crucial decision makers.

Each new program needs more or less. The economic closer to the standard of sustainable design and construction. A local initiative sponsored by multiple city or state agencies will help accelerate the process by convincing the green design moment there are some basic points to make to decision makers:
Why the public sector should mean its buildings

- **Good financial management**
  Green buildings produce operating cost savings in addition to saving taxpayer dollars. Relative small first cost investments can leverage annual long-term and short-term savings, freeing up large sums of money for other purposes.

- **Quality of life issues**
  Green buildings offer improved working environment through the use of environmentally friendly materials, investments in "daylighting" and good indoor air quality. High quality, healthy work environments can improve occupant performance, and the savings also reduce energy costs and costs to employees. Also, buildings that have been previously managed and maintained to a high standard will become a favorite of leasing agents.

- **Economic development potential**
  Widespread application of green practices across a large real estate portfolio could foster new markets for green products and green energy technologies.

- **Environmental stewardship**
  Green buildings at a large program level produce environmental outcomes such as: reducing environmental and financial costs; water, energy, and resource savings; and reducing air and water pollution. This means that green buildings can contribute to local environmental goals and sustainable energy generation will also significantly reduce the greenhouse gas emissions.

Developing guidelines

Many jurisdictions have created their own guidelines or adapted building codes to new standards of sustainability. Many excellent examples of such guidelines exist, led by government entities or advocacy organizations that are early adopters of public green buildings programs before the existence of LEED.

As a strategy to develop new methods of building practices and policies, current guidelines need to incorporate the general public as well as actual green building practices. In the absence of sustainable design codes, existing green building practices have been the cornerstone of green building policy.

Adapting LEED

Currently, a large number of programs rely upon the Counsel’s LEED Rating System and Reference Guides as the defining standards for building performance. Many cities, counties, and states have adopted LEED as the baseline, even at the state and local level. The LEED system allows for:

- **Efficiency**: LEED provides all the benefits of a LEED system while allowing flexibility for accommodating state and local priorities, including unique circumstances. While some jurisdictions find LEED works well "out of the box," others prefer to create their own versions with the LEED system as a starting point.

- **Leadership**: LEED encourages leadership and administrative expertise because it has been produced by the leadership coalition of leaders from across the building industry.

- **Sustainability**: LEED encourages and supports the development of comprehensive sets of tools for local application.

- **Leadership**: LEED promotes the need to establish local certification bodies.

- **Government incentives**: Many jurisdictions adopt LEED as a means to improve sustainability, achieving local and federal sustainability goals.

Many experienced green building advocates claim that LEED Silver rating may be achieved at no additional cost to the project.
Adopting and supplementing LEED

This is the route taken by the City of Seattle. It consists of adopting LEED as is, but then supplementing LEED with additional criteria or mandating certain criteria. The City retains the responsibility of enforcing the supplements to LEED, while USGBC continues to administer the normal LEED application. This approach is much easier to implement across the LEED family of products and would require less update of the supplements than wholesale local adaptation of LEED.

Incentives

There is an enduring and widespread perception in the building industry that green buildings inherently carry a higher initial cost premium for design and construction. This has become a popular position among those most adverse to innovation and organizational change. Some bureaucracies also adhere to this view citing it as an obstacle to green as government on a portfolio-wide basis.

The pa is, as yet, no statistically definitive answer in the public building sector to the first-cost issue. Many experienced green building advocates claim that a LEED Silver rating may be achieved at an additional cost to the project. Others contend that a probable range of construction cost increase is between 1% to 3% for a LEED rating, and considerably higher for gold or platinum ratings. It is safest to say that it depends entirely on the project type, interactiveness of the design team with LEED, level of performance being sought as well as the stage at which (and how thoroughly) LEED is integrated into the design and construction process.

In getting started, these are a number of ways to progress beyond the first-cost concern and avoid debate, by ensuring at the outset the overall adequacy of project resources for the desired performance attainment level. Considerations include:

- Adjusting total project budgets incrementally and in advance — i.e. in the “outer year” of a budget cycle — when adjustments are more easily made.
- Adding funding increments for design fees to cover the costs of energy modelling, daylighting and materials analysis. These services are readily justifiable as they clearly go beyond conventional design services.
- Locating funding sources (grants or cost-shared) for these additional design services from utilities or other partners. New York State Energy Research and Development Authority, for example, provides such services listed above on a cost-shared basis.
- Investigating additional construction funding or financing sources with utilities. In some locales, systemic benefit charges (a charge to utilities to help fund efficiency and renewable energy programs) can be used to fund the incremental cost of efficiency improvements.
- Coordinating other grant and loan programs that increase energy efficiency use (performance contracting!) or other financial incentives that offset higher costs of technologies that save energy and water.
- Considering the use of performance contracting to fund any additional first-costs. These costs would be paid in a few years and the long-term cost savings would be realized.
- Comparing first cost investments to annual life-cycle O&M savings to calculate Rate of Return.
Develop training and outreach programs

One important step in creating a successful green building program is to ensure crucial support from staff that will implement the projects. They will need training to understand and accept the new practices. In addition, there is further need to promote education and outreach to gain institutional support for the program from the community and the building community.

Education

1. Provide training programs that educate government agency staff — technical and non-technical — as well as intergovernmental departments with focus for administrative input into design and construction.

2. Develop seminar or training modules to address each of the key technical areas for green buildings. Formal training seminars may also be applied by arranging for presentations by vendors and manufacturers of new products.

3. Develop the training modules around case studies of actual projects accomplished in the program. Consider documenting successes on a Website or through videos as a means of outreach.

4. USGBC offers a series of training workshops for LEED including:
   - A full day, interactive LEED workshop for LEED Green Associate.
   - A full day, interactive LEED workshop for LEED Accredited Professional.
   - A full day, interactive LEED workshop for LEED Accredited Professional.
   - A full day, interactive LEED workshop for LEED Accredited Professional.

Outreach

- Create support in the professional community for the new policies. Establish regular opportunities for receiving their input into the program (such as review of new policies or procedures) and sharing their successes.

Create exemplary or showcase buildings

Ultimately, nothing builds local momentum and accelerates the learning curve more quickly than applying principles to a real site and building program. Consider the following criteria in selecting appropriate projects:

- Select projects that are analysis planning or in a conceptual design stage rather than one already advanced in design. Once design is underway, it is more difficult and costly to switch from a conventional design process to an integrated design approach. A late-stage approach implies that green features will likely be considered as an overlay to existing architectural ideals rather than an integral part of the design.

- Consider buildings types that will be replicated in the future, for example, one of several data centers at Amazon for future data centers.

- Select projects that might be compared, increasing, conventionally designed buildings, for example, the opening and operating performance of a new green library might be readily benchmarked against existing library building in the portfolio.

- Select projects that have high civic visibility — a new city hall, municipal library, courthouse, educational institution. Any of these larger public buildings types could be an example, a public showcase for monitoring and demonstrating economic and environmental benefits.

- Encourage clients to design green building projects with their core teams, and to select appropriate, installable goals from among alternative levels of performance. Some project examples include lighting as a preferred source of illumination in libraries, sustainable landscaping practices for a botanical garden or water pollution prevention for an aquarium emphasis on water quality and other factors surrounding water or nature centers.
Using LEED

Why choose LEED?

One of the USGBC’s vital functions is developing guidelines to define sustainable building and development — in the areas of design, construction, and operation. This guidebook, known as the LEED Green Building Rating System, is rapidly becoming the nation’s standard for designing, constructing, and certifying sustainable buildings.

Leadership in Energy and Environmental Design (LEED)

The core mission of LEED is to encourage and accelerate global adoption of sustainable building practices through the development and implementation of universally understood and accepted standards, tools, and performance criteria. LEED is a voluntary, consensus-based, market-driven building rating system based on existing proven technology. It evaluates performance and assesses the potential of a new building or building improvement. LEED helps the marketplace define thresholds of performance in relation to sustainable sites, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resources. LEED is a system designed to rate and certify new and existing commercial, institutional, and high-rise residential buildings with related products under development for commercial interiors and other residential applications.

LEED is a flexible, yet consistent architecture. Its development process is broad and inclusive of the needs of different building types, regions or markets, while maintaining the integrity of the system’s goals and objectives.

Benefits to State and Local Governments using LEED

- LEED provides all the benefits of a national market transformation system while affording built-in flexibility to accommodate state and local priorities. In most jurisdictions LEED works well “off the shelf,” some others prefer to create and enforce official supplements within the context of their own green building efforts. Still others are willing to invest long-term in producing and maintaining an official LEED Application Guide.

- LEED reduces technical and administrative uncertainties because it has been produced by the nation’s leading coalition of leaders from across the building industry.

- LEED saves time and resources by providing a comprehensive set of tools for local application and use.

- LEED avoids the need to establish local certification bodies.

- Government entities that join the USGBC as members have the opportunity to shape LEED by being involved in committee work and voting on LEED ballot issues.

- LEED provides a tool for benchmarking with jurisdictions across the country. See the LEED Web site for a current list of projects registered for certification.

- LEED already has tremendous momentum due to its design elegance. The growing number of public-private partnerships with federal, state, and local governments enhances LEED’s credibility.

- Since the performance level of the building industry gradually improves over time, LEED evaluates performance thresholds every five years, saving the jurisdiction money and time to change statutes.

What They’re Saying:

Federal, State, and Local LEED Testimonials

U.S. General Services Administration (GSA)

We chose to use LEED as a measure for our Build Green efforts because it is the primary green building rating system in the country and is already familiar to many design professionals. Using LEED as a goal in design criteria will help us to apply principles of sustainable design and development in our buildings projects.


Commonwealth of Pennsylvania

Pennsylvania is proud of its leadership in “building green.” We are home to 3 of the first 12 buildings in the United States to achieve certification as “green” under the U.S. Green Building Council’s rating system. Our Building Green in Pennsylvania program has provided tools and some actual completed government projects that demonstrate how sustainable building design and construction is possible and cost-effective, while achieving high-quality, people-friendly, energy-efficient buildings to live, learn, and work in.

—Former Pennsylvania Governor Tom Ridge

The Governor’s Green Government Council’s Building Green in Pennsylvania program was piloting projects utilizing LEED as the driver to achieve integrated design and coupling it with the specific performance standards contained in our Model Green Office Specifications for Leased Buildings. This has resulted in several LEED Certified Facilities which must perform and maintain that performance over the life of the lease and any renewal option terms. Additionally, we now have six documentary educational Building Green videos available at no cost on www.ggpcc.state.pa.us.

—Jim Tothaker, Former Director, Bureau of Office Systems and Services, Pennsylvania Department of Environmental Protection
LEED is the first system to offer us all of the features I believe that we need to make progress toward greener buildings in one package...

—Lynne Echtern Kelley, Energy Analyst, City of Eugene, Facilities

State of Maryland

The LEED Rating System is rapidly becoming the national standard for green buildings and provides the ability for the State to compare and measure its progress with other jurisdictions around the country. Being able to use the existing LEED Rating System infrastructure eliminates the need to “reinvent the wheel”. In creating and administering the State’s green building program, allows quicker implementation of the program, and saves taxpayer dollars.

—Stephen Gillis, Maryland Department of General Services

Arlington County, Virginia

Arlington County has adopted...LEED as a way to measure the energy and environmental performance of buildings in the County...LEED is the easiest way for any professional, business, or organization to master green building standards and practices.

—“Green Building” page of Arlington County Department of Environmental Services Web site: www.co.arlington.va.us/designgreen.htm

Arlington adopted the LEED standard as the centerpiece of our green building incentive program because it is a carefully crafted rating system reviewed and approved by professionals from all areas of the building industry. The County does not have the in-house expertise to review specific green building components, and we felt that the nationally accepted LEED program would add credibility and uniformity to our program.

—Joan Kellis, Environmental Planner, Arlington County Department of Environmental Services

City of Seattle, Washington

Use of a national standard helps to establish minimum performance levels, create a common dialogue for discussion, and allows Seattle to measure its sustainable building performance relative to other jurisdictions using LEED. In addition, technical rulings, training, networking, and marketing support are provided by the USGBC.

—Seattle CI Supplement to the LEED Rating System

Using LEED has accelerated our accomplishments in sustainable building with a fast-moving capital improvement program, by piggybacking with a nationally recognized program and incredible group of national experts who developed the tool. It’s also valuable to know how we are doing compared to other jurisdictions.

—Lucy Allen, Chair, City of Seattle Green Building Team

City of Portland, Oregon

Localization of LEED is important. It meshes local regulations and environmental values — two important aspects of bringing about market transformation at a local and regional scale.

—Rob Beesley, Manager, Green Building Division, Office of Sustainable Development, City of Portland

City of Eugene, Oregon

In thinking about the organization that I work for, I asked myself the question: What is it that we would need to help us move toward the goal of producing a “greener” building?

• We need a definable goal for the project. A directive that simply says “Build a green building” causes major confusion.
• We need practical guidance through the design process, yet this guidance needs to be flexible enough to encourage and reward creativity...
• We need a mechanism to challenge us to go beyond code or beyond our own limits. We need something that will help us continue to improve...
• We need a comprehensive evaluation of the environmental impact of our building...
• We need a common language in order to share our experiences and results with others, locally or nationally...
• We need recognition for our efforts. It’s not easy to change the direction of a large organization; sometimes we simply need the moral support of recognition...

LEED is the first system to offer us all of the features I believe that we need to make progress toward greener buildings in one package...

—Lynne Echtern Kelley, Energy Analyst, City of Eugene, Facilities

City of Austin, Texas

LEED has provided a nationally accepted set of standards for architects and engineers working on commercial and municipal projects in Austin to use as goals throughout the design process. We believe that this gives our Green Building efforts greater credence and can only lead to higher quality buildings.

—Richard Morgan, Green Building Manager, Austin Energy

City of New York, New York

We are excited by our clients’ interest in using LEED on our green building initiatives. We also value LEED’s versatility and compatibility with the use of New York City’s High Performance Building Guidelines.

—Hillary Brown, (former) Assistant Commissioner, NYC’s Office of Sustainable Design

WHAT THEY’RE SAYING

Being able to use the existing LEED system infrastructure eliminates the need to “reinvent the wheel” in creating and administering the State’s green building program.

Stephen Gillis, Maryland Department of General Services
Who's Done It

Introduction

Several state and local government entities have been leading the way using LEED to
form and enhance their own green building and development programs. The case
studies that follow examine who the entities are, how they are using LEED and what
considerations have been taken into account for their use of LEED, including:

- Policy and Program
- Structure
- Application (tung)
- Additional Actions

Contact information and links to reference Internet resources are also included.

U.S. General Services Administration

Policy: As of January 2002, GSA's Public Buildings Service (PBS) has committed to
achieving the LEED Certified level for all future construction projects, beginning
with those designed in FY 2003. As an exception to Section 10.5 Environmental Policies & Practices of the PBS-PS-100 Standard,
the LEED Certified level for new projects shall be achieved by green building solutions as described above.

LEED Certification

LEED Certification is a measure of green buildings, and LEED-certified buildings are
measured against other LEED-certified buildings. LEED certification requires:

- A minimum of 20 points
- A maximum of 20 points
- A minimum of 40 points
- A maximum of 60 points
- A minimum of 80 points
- A maximum of 100 points

GSA's LEED Certification level for new construction projects shall be achieved by green building solutions as described above.

Structure: Sustainable design is reviewed at several different stages of a GSA project,
both in terms of energy efficiency and general sustainable design. Initially, each GSA
region responds to the "Sustainable Design Review" to establish the project's sustainability goals and energy efficiency targets.

Training: GSA training aims to provide sustainable design training to all project managers and support staff, including:
- LEED training
- Sustainable Design training
- Environmental Sustainability training
- Energy Efficiency training
- Green Building training

WHO'S DONE IT

Contact

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“Building Green in Pennsylvania” has evolved as one of the major initiatives of the GGGC (Governor’s Green Government Council). ...
Successful green buildings stem from an integrated design process.

State of Maryland

Politics: In March 2001 Maryland Governor Parris Glendening issued Executive Order 01-2001, entitled "Integration of Energy and the Environment." This executive order recognizes the importance of energy conservation and the need to incorporate energy efficiency into the design and operation of public buildings. The goal of this executive order is to achieve a 10% reduction in energy consumption by 2005.
Application: The Maryland Green Buildings Council will develop a LEED application format for evaluating state projects. This work is currently in progress.

Additional Activities: Section A, "Clean Energy Procurement Goal," of Executive Order 01.31.2001.02 lists the following:
1. "Green energy" is defined as energy generated from wind, solar photovoltaic, solar thermal, biomass, landfill gas, and the combustion of municipal solid waste.
2. For the procurement of electricity for use within state-owned facilities, the state of Maryland has a goal of 20% to be generated from green energy. More than 50% of the total Green Energy procurement shall be derived from the combustion of municipal solid waste.
3. In the selection of a power generation contractor chosen through the procurement process, priority consideration shall be given to companies that produce green power in Maryland.

Section B, "High efficiency Green Buildings Program," of Executive Order 01.31.2001.02 lists the following additional responsibilities of the Maryland Green Buildings Council:
- An advisory Committee, the Clean Energy Procurement Goal, contained in Section above.
- Consider additional State energy efficiency, energy production, and sustainability issues.
- Develop a comprehensive set of initiatives known as the "Maryland Greenhouse Gas Reduction Action Plan;" and
- Develop a comprehensive set of initiatives known as the "Maryland Greenhouse Gas Reduction Action Plan;" and
- Report annually to the Governor and to the General Assembly on the effort of State agencies in the implementation of High Efficiency Green Building Program Goals: Clean Energy Procurement Goal, the Greenhouse Gas Reduction Plan, and other energy efficiency, energy production, and sustainability issues on policies the Council may have considered.

Section C, "Additional Efficiency Goals," of Executive Order 01.31.2001.02 lists the following requirements of the State:
1. Energy Efficiency Improvement Goal: Reduce energy consumption for space heating and cooling by 10% by 2003 and 15% by 2010 relative to a 2000 baseline.
2. Renewable Energy Project Goal: Expand the use of renewable energy within its facilities, including supporting the federal Million Solar Roofs program.
3. Efficient Product Purchasing Goal: Purchase Energy Star products whenever purchasing energy-saving products, including computers, printers, copiers, and other office equipment, and shall purchase products in the top 20% of energy efficiency products whose labels are not available.

4. Pollution Prevention Cities or region at least 25% of the waste generated is now at least 25% of the waste generated.
5. Alternative Fuel Vehicles Goal:
   - Promote fuel pricing and purchasing guidelines for alternative vehicles, as well as increased use of alternative fuel vehicles for public service.
   - Ensure that where it is operating hybrid or diesel fuel vehicles, the state of Maryland has a goal of 50% of all state vehicles shall be alternative fuel vehicles.
   - Develop the refueling and maintenance infrastructure required to make it feasible to buy alternative fuel vehicles and provide technical assistance and other incentives to use this technology where practical in State transport fleets.

In addition to the State Executive Branch's efforts in the public buildings sector, Maryland's legislature recently passed the Green Tax Credit for Green Buildings bill, signed into law by the Governor in May 2001. This law is designed to encourage green private development in Maryland and will be applicable to all buildings larger than 10,000 square feet. The full text of the law is available online at the Maryland Department of the Environment. A partial synopsis written by Ed Garcia, Maryland Representative of the Natural Resources Defense Council, follows:

"Green Energy" is defined as energy generated from the wind, solar photovoltaic, solar thermal, biomass, landfill gas, and the combustion of municipal solid waste.
Arlington County, Virginia

Program: In order to encourage more green building in Arlington, the County recently required the following for commercial development:

1. All site plan applications in Arlington County are required to include a completed LEED checklist. The checklist allows the developer to assess the options for including green components in a project. It also allows the County to measure a project's overall performance and to collect data on the environmental impact of all site plan buildings in the County.

2. The County offers a bonus density incentive to developers who design green buildings as outlined by the LEED Rating System. The developer may be granted additional density up to 0.25 floor area ratio (FAR) and additional height up to 5 stories of the height limit by the Silver LEED rating or higher.

The full text of the Arlington County Pilot Green Building Incentive Program is available online at www.arlingtonva.us/departments/environmentinfo. The following excerpt explains the purpose of the Pilot Program.

Introduction

In April 2002, Arlington County implemented its Pilot Green Building Incentive Program to encourage construction of more environmentally friendly office buildings. Developers can stabilize lower density by incorporating green building components. The program uses the LEED green building rating system to evaluate green building components and the incentives.

To date, one potential developer has come to the table in March 2002. The entire program will be up for review in 2003.

Structural Concepts: Explaining the basic rules of the Pilot Green Building Incentive Program:

How the Incentive Program Works

The program will allow the County to incentivize developers to incorporate green building components into their projects. The program will provide an initial bonus for all projects that incorporate green building components into the design. The proposed building must meet or exceed the Silver level of the LEED Rating System (building score between 50 and 60).

The program will encourage developers to make additional decisions to reflect the environmental benefits of green building. For example, the bonus density and height will be determined based on the LEED Green Building Program.

Implementation of the Pilot Green Building Incentive Program begins with the following requirements:

1. The developer submits the LEED checklist along with the site plan application to the County.

2. The developer registers the project with the USGBC and agrees to meet the specific components of the LEED program they intend to pursue.

3. The proposed site plan including the measured bonus density and height undergoes the typical county review process.

4. If the site plan is approved, the developer is required to submit a plan drawing and construction of the building. Plans are not considered complete until approved LEED components are included in the plan drawings.

5. The application for LEED Certification and an application are submitted to USGBC when the building construction is complete or substantially complete, depending on the credit selected.

In addition, various checks and enforcement mechanisms are put in place by the County to ensure the integrity of the Pilot Incentive Program. Prior to issuance of the Site Plan certificate of occupancy, the developer must demonstrate the project's financial feasibility. This may be achieved by presenting documentation from an independent certified financial analyst that demonstrates that the project will meet its financial commitments. The developer must also demonstrate that the project will meet the financial feasibility requirements set forth in the aforementioned procedures.
City of Seattle, Washington

Policy: The City of Seattle is among the pioneers of local LEED adoption, and was the first city to adopt a Silver LEED policy. Seattle’s Sustainable Building Policy was passed in February 2000, and is available online at www.cityofseattle.net/sustainable/building/policy.htm. Excerpts of the Policy follow:

Purpose
The purpose of a Citywide policy on sustainable building is to demonstrate the City’s commitment to environmental, economic, and social stewardship, to yield cost savings to the City taxpayers through reduced operating costs, to provide healthy work environments for staff and visitors, and to contribute to the City’s goals of protecting, conserving, and enhancing the region’s environmental resources. Additionally, the City helps to set a community standard of sustainable building.

Policy
It shall be the policy of the City of Seattle to finance, plan, design, construct, manage, renovate, maintain, and decommision its facilities and buildings to be sustainable. This applies to new construction and major remodeling in which the total project square footage meets the criteria given. The U.S. Green Building Council’s LEED Rating System and accompanying Reference Guide shall be used as a design and measurement tool to determine what constitutes sustainable building by national standards.

Structure: Under Seattle’s Sustainable Building Policy a LEED Silver rating, certified by the USGBC, is the policy target for city projects, which currently applies to around $650 million of capital development, as follows:

All (City of Seattle) facilities and buildings (new construction and major remodels) over 5,000 gross square feet of occupied space shall meet a minimum LEED Silver rating. Design and project management teams are encouraged to meet higher LEED rating levels. A Mayor’s Award for achieving a higher rating will be awarded.

To facilitate use of LEED by City Capital Improvement Project (CIP) Managers and their design teams, the City’s Green Building Team created the CIP Supplements to the LEED Rating System. This document provides a wealth of Seattle-specific information on applying the rating system, directs users to relevant local and regional resources, and highlights the additional requirements for City of Seattle projects. Although written for City CIP Managers, the Supplements may serve anyone applying LEED to a project in the Seattle area. The current version of the Seattle CIP Supplements is available as a downloadable PDF file at www.cityofseattle.net/sustainable/building/leeddoc/LEED Supplements.PDF. The City is constantly refining the content of this document, straining to address the technical and general guidance needs of its users.

According to Seattle Green Building Team Chair Lucia Athens, technical questions to the City of Seattle are handled on case-by-case basis — most are handled directly by representatives of the City’s Sustainable Building Program (such as those listed in the Supplements document), while others are referred back to the USGBC. Generally, the City of Seattle tries to handle all the technical issues itself, looking to USGBC for technical support only when credits are modified. The City of Seattle also operates a Sustainable Building Reference Library containing LEED referenced standards, maintains a Web resource (www.cityofseattle.net/sustainablebuilding), conducts training and education, develops tools, and offers incentives to further assist in LEED implementation.

Application: The specific deviations from LEED 2.0 required for City of Seattle projects, as described in the Seattle CIP Supplements, are summarized below:

LEED 2.0 Prerequisite or Credit | Seattle LEED Application
---|---
Site Prerequisite 2 Landscape and Views Management | Supplemental Prerequisite requiring compliance with the City of Seattle Landscape and Grounds Management Guidelines
Energy Prerequisite 1 Fundamental Building Commissioning Amendments | Demonstrated Equivalency which also requires compliance with the 1997 Washington State Energy Code with Seattle Amendments
Energy Prerequisite 2 Minimum Energy Performance | Demonstrated Equivalency which also requires compliance with the 1997 Washington State Energy Code with Seattle Amendments
Energy Credit 1 Optimize Energy Performance | Demonstrated Equivalency which also requires compliance with the 1997 Washington State Energy Code with Seattle Amendments. Mandatory Credit requiring credit level 1 (2 points) minimum
Energy Credit 2 Renewable Energy | Clarification that to receive credit the energy benefits from renewable/alternative energy must be above and beyond the energy measures employed to obtain energy efficiency credits.
H&Q Prerequisite 1 with Minimum (AQ) Performance | Demonstrated Equivalency, which also requires compliance with the Seattle Mechanical Code and Washington State Ventilation and Indoor Air Quality Code.
H&Q Credit 2 with Increased Ventilation Effectiveness | Demonstrated Equivalency, which also requires compliance with the Seattle Mechanical Code and Washington State Ventilation and Indoor Air Quality Code.
H&Q Credit 7 Thermal Comfort | Clarification to state “unless special design conditions justify other values”
The City of Seattle is among the pioneers of local LEED adoption, and was the first city to adopt a Silver LEED policy.

City of Portland, Oregon

Policy: The City of Portland adopted the LEED Rating System in January 2001 and completed a local application of Portland LEED in the summer of 2002. The full text of the Policy is available online at www.portland.gov/leed. An excerpt from the Policy follows:

Policy Statement
The city of Portland shall incorporate green building principles and practices into the design, construction, and operation of all new and renovated public facilities and public projects. In certain districts, the city shall require LEED Silver certification for new building projects.

Structure: The City of Portland Green Building Policy outlines four key components or “Policy Strategies”:

1. The City of Portland shall incorporate green building practices into all facilities projects constructed, owned or managed by the City, including:
   - New Construction and Major Renovations: Requirement to meet and be certified by USGBC at the “Certified” level of Portland LEED; the use of a LEED building rating system.
2. The Portland Development Commission (PDC) shall adopt Portland LEED Green Building Rating System as its official policy and incorporate green building practices into each of its ongoing and future programs. 

Additional Activities: Several other City policies and programs that relate to sustainable building are referenced in the Seattle LEED Supplement, though not required for the specific purposes of achieving a LEED rating including:
- The City’s Resolution regarding land use of sustainable design and development (Resolution 2012).
- The City’s Policy regarding the purchase of recycled-content materials (SMC section 8.25.040).
- The Adopter Project: the City’s plan to convert its entire fleet to LEED certified vehicles and the City of Portland’s use of LEED certified vehicles.

In addition to the LEED add-on LEED for City Projects, various financial incentives and technical assistance are made available to commercial, multifamily, and single family projects. Highly recommended for use with program applications, and focus on the following resource conservation areas:
- Water Conservation
- Materials conservation
- Multiple Resource Conservation
- Site and Landscape
- Community Planning/Transportation
- Energy Conservation
- LEED Certification

WHO'S DONE IT
Contact
Rob Bennett
Manager, Green Building Division
Office of Sustainability
City of Portland
502-222-7002
transport@portland.gov

For information on the potential application of the State of Oregon’s current Energy Tax Credit to the LEED buildings contact:

Charles Stinson
Oregon Office of Energy
503-770-4220 or 800-221-0035
www.energy.sabor.oregon.gov

City of Portland Green Building Project
City of Portland, OR
3. The construction, operation, and maintenance of public infrastructure that serves building development will be accompanied in order to determine the opportunity and need for a sustainable living systems infrastructure similar to Portland LEED Green Building Rating System.

4. The City will promote the voluntary application of the Green Building Guidelines in private section planning design, construction, and operations, including:
   - training and providing access to technical expertise and information about green building in the residential, commercial, and institutional building sectors;
   - resolving code and other regulatory conflicts with green building practices;
   - conducting workshops and training targeted at specific building industry sectors;
   - developing building type-specific, green building resource guides and expanding market demand by educating Portland area residents and businesses.

Since relatively few cities exist, Portland is currently focusing on implementing incentive programs for the private sector. Through the Portland LEED Incentive Program, the City has retained a $2,000,000 fund to promote LEED at the private sector offering the following incentives to commercial projects, for which achievement of the LEED level must be certified by the USGBC:

- $1,000 for green design services at the Portland LEED Certified level
- $2,000 for green design services at the Portland LEED Silver level

75% of the above fees are available up front with a signed agreement. If the agreed upon LEED level is not attained by the project, the fees are recouped by the City. To date, 13-14 commercial pre-applications have been received for the Portland LEED Incentive Program at the Silver level or better.

Application: The City of Portland LEED application file was approved by the USGBC in the early 2000s. Portland's application includes waterfront, mixed-use, mixed-use competition, mixed-use development, mixed-use design and construction, and mixed-use renovation. These applications, which merged from a combination of local values and application needs, are summarized in the table below:

<table>
<thead>
<tr>
<th>LEED Credit</th>
<th>LEED Incentive Amount</th>
<th>Portland LEED Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Credit 1</td>
<td>Landscape improvements in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 2</td>
<td>Site improvements, including transportation management and access management.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 3</td>
<td>Additional incentives, such as traffic-calming strategies, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 4</td>
<td>Innovative strategies, such as the use of LEED Green Building Councils, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 5</td>
<td>Energy Efficiency, including the use of LEED Green Building Councils, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 6</td>
<td>Water Efficiency, including the use of LEED Green Building Councils, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 7</td>
<td>Innovation Credits, such as the use of LEED Green Building Councils, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 8</td>
<td>Innovation Credits, including the use of LEED Green Building Councils, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 9</td>
<td>Innovation Credits, such as the use of LEED Green Building Councils, are available in the City's central business district.</td>
<td>Portland LEED adaptation.</td>
</tr>
<tr>
<td>Site Credit 10</td>
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</tr>
</tbody>
</table>

The Portland office building, an eco-friendly building, is on the top floor of the new Willamette Capital Center, designed for high performance green building design, natural light, and energy efficient design. The building features include:

- A green roof system
- A rainwater collection system
- A solar panel system
- A high-efficiency HVAC system

The Portland office building is the first LEED certified office building in Oregon.
Using LEED

"In many ways we are still learning what a ‘green’ building looks like. We’ll be much more successful... if we don’t limit how we accomplish the goals..."

City of Eugene, Oregon

Policy

City of Eugene, Oregon

Policy: The Eugene City Council adopted a Sustainability Resolution in February 2000. Included in the resolution was the policy to use the LEED Rating System as a design guideline for construction of new city facilities with the goal of achieving LEED Certification. An excerpt from the Sustainability Resolution reads:

The City is committed to assessing current practices and programs with respect to their compliance with sustainable strategies. The City is further committed to developing strategies for implementing sustainable practices that address aspects of product selection, maintenance, facility design and municipal operations.

Structure

As a part of the Sustainability Resolution, the Environmental Policy Team (EPT) was formed to provide guidance to the City’s sustainability efforts. The EPT consisted of technical teams, the Environmental Services Team (EST), the Integrative Services Team (IST), and the Green Building Team (GBT).

The focus of the Green Building Team is on the application of green building technologies and policies. The team is comprised of City representatives from several city departments and divisions that have expertise in building functions as well as external regulatory and economic development functions. In presentation to the Association of Professional Energy Managers, Energy Analyst Lynn Greenhut explained the City of Eugene’s initiative for adopting the LEED Rating System by beginning with the question: “What is it that we would need to do more toward the goal of producing a ‘green’ building?”

1. We need a definable goal for the project. A directive that simply says “Build a green building” creates major confusion. We needed to have a way to describe what we want from the project in order to give direction to our contractors.

2. We need practical guidance through the design process, but this guidance needs to be flexible enough to encourage creative and new thinking. In many ways we are still learning what a ‘green’ building looks like. We’ll learn much more successful in meeting the challenge if we don’t limit how we accomplish the goals that we have defined for the building.

3. We need a mechanism to challenge us to go beyond code or beyond our own limits. We need something that will help us to continue to improve. If there is not some additional goal, then it is very likely that we would change some practices and go no further.

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• We need a comprehensive evaluation of the environmental impact of our buildings—
not just the energy impact, or just the impact on the watershed, airshed or internal
environment of the building. We have many environmental groups here in Eugene,
each with one strongly held concept and all with their own merit. How do we decide
which features we will incorporate and evaluate the entire impact of our work?

• We need a common language in order to share our experiences and results with
others, locally or nationally. Benchmarking has become a buzzword, but there are
so many related programs that it takes too much time to become familiar with
them all in order to compare your buildings.

• We need recognition for our efforts. It’s not easy to change the direction of a large
organization; sometimes we simply need the moral support of recognition.
Additionally, in environmentally-oriented Eugene, the citizens want to hear about
the steps that their local government is taking toward sustainability.

The City of Eugene’s first new building project utilizing LEED 2.0 is the Eugene Public
Library, a 127,000 square foot facility currently under construction. The facility is
registered under the LEED Rating System and aspirers to achieve LEED Certification
just below the LEED Silver level.

Application: The City of Eugene uses LEED 2.0 without modification for local
conditions. They may develop a LEED Application Guide in the future.

Additional Activities: The GBT will initially build from the city-wide data collected
by the ERT and identify potential areas of improvement utilizing current green
building technology. The Team will review information on research and application of
green building practices in the public and private sector, identifying practices
for application to the City, evaluate the costs and benefits of those practices, and
recommend changes and additions to the City’s internal policies and procedures.

The Team will also evaluate the experiences of other jurisdictions in the development and
adoption of principle of sustainability, including green building codes and their impact
of the development community. The Team will present best practices in other communitiess and recommend steps that can be taken by the City to encourage adoption of green
building practices by the private sector, including green building technologies and enviromentally friendly land subdivision and site development practices.

In anticipation of the LEED 3.0 program, the City is developing its own guidelines for
application of green building principles in renovation projects and operations and
maintenance.

The City initiated its current Energy Management Program in 1994, utilizing utility
tracking software to document energy use and establish priorities for completion
of energy projects. To date the City has reduced energy consumption in City facilities
by over 20%, compared with the 1995 baseline.
Resources

FEDERAL USERS:

DOE: The Department of Energy supported the development of the LEED Rating System, training workshops, and reference materials.

Contact: Heather S. Davies
202-287-1644
heather.davies@eere.energy.gov

DOE: The Department of the Interior has signed a Memorandum of Understanding with the U.S. Green Building Council agreeing to use LEED for Existing Buildings.

Contact: Heather S. Davies
202-287-1644
heather.davies@eere.energy.gov

EPA: The Environmental Protection Agency participated in the pilot testing of LEED version 1.0, but did not earn project certification. The Agency currently has two laboratory projects registered and is supporting development of LEED for Existing Buildings.

GSA: The General Services Administration requires that all building projects beginning design in 2003 meet LEED Certified level standards. To support this policy, the GSA has signed a Memorandum of Understanding with the USGBC agreeing to use LEED on all new projects. It is not requiring that all projects apply for certification, however, it has 19 projects registered including federal courthouses, laboratories, border stations, and office buildings. The GSA is the nation's largest tenant, managing space in over 8,300 owned and leased buildings for over one million federal employees. GSA was the Council's first federal member.

Contact: Don Hoehn and Debra Yap
202-501-4525
donald.hoehn@gsa.gov, debra.yap@gsa.gov

State: The Department of State has committed to using LEED on the construction of 180 new embassies worldwide over the next 10 years and worked with the USGBC to coordinate a green charrette for the project team in early 2001. The Department has multiple projects registered with LEED.

Contact: David Barr
703-785-2179
barrdp@dstate.gov

Air Force: The Air Force has developed a LEED Application Guide for Lodging projects and has registered projects for LEED Certification.

Army: The Army has adopted LEED into its Sustainable Project Rating Tool (SpRT), but is not requiring certification of its projects.

Navy: The Navy was the first federal entity to certify a LEED project, the Bachelor Enlisted Quarters at the Great Lakes Naval Training Center. This project was certified under the Pilot version of LEED. Navy currently has one project registered with LEED and is supporting the development of LEED Residential.

Contact: Mike Chapman, Naval Facilities Command
202-485-9175

STATE USERS:

California: California is currently considering LEED adoption and has developed a draft LEED Supplement for state projects.


Maryland: Maryland adopted LEED Certification for all state capital projects greater than 7,000 gsf in October 2001. An implementation plan for the new policy is completed. The state currently offers a green building tax credit for commercial projects. Further information on Maryland’s activities available at http://business.marylandtaxes.com/taxinfo/taxcredit/greenbuild/default.asp

MD Green Building Council contacts:
Mark Bundy, MD Dept. of Natural Resources
410-367-8720
mbundy@dnr.state.md.us
Steve Gilmer, MD Dept. of General Services
410-767-4675
sgilmer@dgs.state.md.us
Massachusetts: Massachusetts is considering LEED adoption for all state projects.
Contact: John DiModica, Dept. of Capital Planning
617-727-4030
John.DiModica@dcr.state.ma.us

New Jersey: The New Jersey Economic Development Authority is encouraging the use of LEED on its $12 billion public school construction program. The New Jersey Department of Environmental Protection is supporting the development of a LEED application guide for K-12 and higher education facilities.
Contact: Mark Lohbauer, Economic Development Authority
609-292-1800
Donald Wheeler, Chair
LEED for Schools Organizing Committee
201-445-9272

New York: New York Governor Pataki issued an executive order in June 2001 encouraging but not requiring state projects to seek LEED Certification. The New York State Green Building Tax Credit Program provides a tax incentive to commercial developments incorporating specific green strategies (not directly tied to LEED).
New York Green Building Tax Incentive Program:
www.dec.state.ny.us/website/epu/gmbd/gbindex.htm
New York Executive Order:
www.gom.state.ny.us/gom/EO/111_fulltext.htm
Contact: Craig Kneedler, NYSERDA
518-862-1090, ext. 3311
cik@nys erda.org

Oregon: Oregon’s 35% Business Energy Tax Credit for commercial development is tied to LEED Certification level
100,000 sf LEED Silver building eligible for $105,000 tax credit
100,000 sf LEED Gold building eligible for $142,500 tax credit
http://oreweb.sos.state.or.us/rules/DARS_300/DAR_339/339_090.html

Pennsylvania: LEED Silver certification is required in new construction RFPs issued by the Department of Environmental Protection and Department of General Services. A draft bill requiring LEED Certification of state projects was released for review in March 2002.
H.ouse bill 2433 including a High Performance Green Building Tax Credit is currently under committee review.
www.legis.state.pa.us/MU271/U2B/4ALL2001/0HE2433.HTM

Four state funds including the $20 million Sustainable Energy Fund provide grants, loans and "near-equity" investments in energy efficiency and renewable energy projects in Pennsylvania.
Contact: Paul Zeigler, Engineering & Building Technology
Governor’s Green Government Council
717-772-5161
pzeigler@state.pa.us

Washington: Currently, use of the LEED Rating System is voluntary; however, pending legislation may require state and college facilities be built to LEED Silver.

MUNICIPAL USERS:
Several municipalities are currently requiring LEED Certification of their projects:

Austin, TX: Austin requires LEED Certification of all public projects over 5,000 sf.
City of Austin Green Building Program:
http://www.ci.austin.tx.us/greenbuilder/
Contact: Richard Morgan,
City of Austin Green Building Program
512-995-3709
richard.morgan@austintexas.gov

Arlington, VA: Arlington County allows commercial projects earning LEED Silver certification to develop sites at a higher density than conventional projects.
All site plan applications for commercial projects are required to include a LEED Scorecard regardless of whether or not the project intends to seek LEED Certification.
Contact: Joan Kelsch
703-228-3599

Boulder, CO: Boulder requires all municipally funded new construction and major addition projects to achieve LEED Silver certification. The City is considering requiring certification of commercial projects or developing a LEED-based incentive program.
Contact: Christine Andersen, Deputy City Manager
andersenc@ct.boulder.co.us
**Cook County, IL:** The Cook County Commissioners adopted an ordinance requiring LEED Silver Certification of all new county building projects and encouraging the application of LEED to existing building retrofit and renovation projects.
www.coocokountyil.gov/leed

**Kansas City, MO:** The City of Kansas City, Missouri, formed a LEED committee to research the adoption of LEED Certification of public projects. The committee will report its findings in the spring 2002 with a final decision on adoption anticipated by mid-year.
Contact: JC Abner
816-719-4177
jc_abner@yahoo.com

**King County, WA:** King County Executive Order EEO 9-01 (KCBS) requires all new public construction projects to seek LEED Certification and encourages the application of LEED criteria to building retrofit and renovation improvements. A local LEED Application Guide is currently under development.
Contact: Theresa LaPine
King County Solid Waste Division
theresa.lapine@kingcounty.gov

**Los Angeles, CA:** On April 18, 2002, the Los Angeles City Council voted in favor of requiring LEED Certification of all public works construction projects greater than 7,500 sf.
Contact: Deborah Weintraub, City Architect
213-649-6970
dw@lacity.org

In March 2002, LEED Certification of new construction projects was approved as part of the .18 billion bond proposition funding building projects on the nine campuses of the Los Angeles Community College District.

**New York, NY:** New York City is moving towards increased use of LEED as a complementary tool to its High Performance Building Guidelines. Contact: Hilary Brown
New York City Department of Design and Construction
718-636-1397
hroman@dnr.state.ny.us

**Portland, OR:** Portland requires LEED Certification of all public projects over 5,000 sf and has developed Portland LEED supplement. Portland LEED incentive programs provide funding to commercial projects to offset costs of certifications. $1,000 for LEED Certified and $300,000 for LEED Silver ratings.
City of Portland 503-823-7002
320 SW Main - City of Portland Green Building Program
www.ci.portland.or.us/greenbuildingsportal.html

Contact: Rob Bennett, Office of Sustainable Development
320 SW Main - City of Portland Green Building Program
503-823-7002
robb@ci.portland.or.us

This site also contains a link to the City of Portland cost comparison study at www.ci.portland.or.us/greenbuildingsportal.pdf

**San Diego, CA:** San Diego Mayor Dick Murphy included requiring LEED Silver certification of all municipal projects among his 10 goals for the year in his 2002 State of the City Address. The City has subsequently adopted LEED for all public projects.
Contact: Richard Hayes, Director, Environmental Services
619-235-5370
richard_hayes@san-diego.gov

Mayer's office: Terri St. Policy Advisor
619-235-5398
st_advisor@san-diego.gov

**San Jose, CA:** San Jose requires LEED Certification of all municipal projects over 10,000 sf.
Contact: Mary Tucker
408-277-6111
mary.tucker@city.gov

or Darren Biondo
408-277-6170
darren.biondo@city.gov
Contact: Jill Boone, Recycling Program Coordinator
650-599-1433
jboone@recycleworks.org

Seattle, WA: Seattle requires LEED Silver certification of all public projects over 5,000 sqf.
City of Seattle Sustainable Building Policy:
The City’s Sustainable Building Policy was unanimously endorsed by the City Council and signed by the Mayor in February 2000.
The policy uses the U.S. Green Building Council’s LEED Rating System to evaluate City projects:
www.cityofseattle.net/utilresors/susbuiltpolicy.htm
Contact: Lucia Athens, Sustainable Building Program
206-684-4643

Site plan of Park
90/Fuilding SC (LEED registered project),
City of Seattle, WA.