



LEED-EB for Multi-Tenant Buildings

June 24, 2008

Introduction

What is LEED-EB?

What is LEED-EB?

LEED-EB addresses:

- Energy efficiency
- Water efficiency
- Ongoing indoor air quality
- Systems upgrades to meet green building energy, water, IAQ and lighting performance standards
- Building cleaning and maintenance issues
- Recycling
- Exterior maintenance
- Food and beverage purchases and waste handling

What is LEED-EB?

Why LEED-EB matters

- Maximize operational efficiency
- Create healthy and productive places to work for occupants
- Demonstrate commitment to environmental stewardship & social responsibility
- An integrated and collaborative organizational culture
- Lower operating costs
- Ongoing analysis and measurement protocol

What is LEED-EB?

LEED-EB Categories

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality
- Innovation in Operations

LEED-EB Point Breakdown

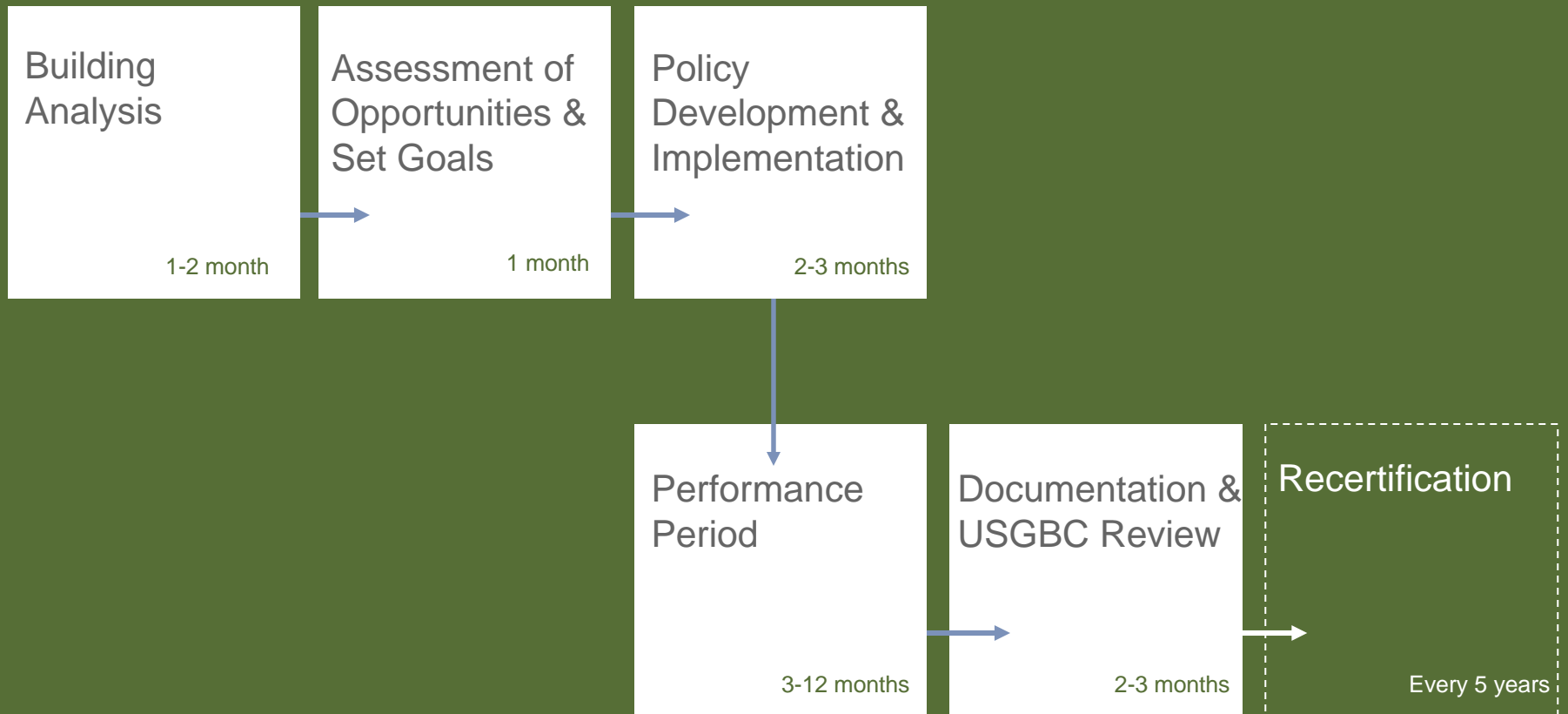
- Certified, 34-42 points
- Silver, 43-50 points
- Gold, 51-67 points
- Platinum, 68-92 points

What is LEED-EB?

LEED-EB Stakeholders and Participants

- Owner
- Facilities Management
- Building Engineer
- Tenants
- Building Exterior Maintenance Staff
- Janitorial Staff
- Landscape Maintenance Staff
- Building Trades
- Purchasing
- Information Technology
- Food Services
- Finance
- Snow Removal Provider
- Pest Management Provider
- Waste Hauler
- Mechanical Engineer &/or Commissioning Agent
- Landscape Architect &/or Civil Engineer
- Architect &/or Interior Designer

The Process



The Rating Systems

LEED-EB V2.0

2004 – Summer 2008

**LEED-EB Operations &
Maintenance**

February, 2008 – January, 2009

LEED-EB 2009

January, 2009 onwards

What is LEED-EB?

Example: Water Efficiency Prerequisite 1 – Minimum Indoor Plumbing fixture and Fitting Efficiency

- Plumbing systems must meet 120% of the 2006 Uniform Plumbing Code performance requirements if completed in 1993 or later or 160% if completed prior to 1993.
- Must address:
 - All base building and tenant:
 - Water Closets & Urinals
 - Lavatories & Kitchen sinks
 - Janitor's sinks
 - Showers
- Integrated Team required:
 - Building Engineer
 - Building Management
 - Architect or Engineer if retrofits needed

What is LEED-EB?

Example: Water Efficiency Prerequisite 1 – Minimum Indoor Plumbing fixture and Fitting Efficiency

– Success Story:

- For a 1.2 million square foot office building to comply with prerequisite requirements, the base building lavatories were retrofitted with 0.5 gpm aerators (2.0 gpm lavatories originally installed)
- Capital cost of \$6,100 in material (labor performed by building engineers)
- Will save the building an estimated \$107,000 annually
- Less than 1 month payback
- Saves approximately 75,600,000 gallons of water annually
- Also, earned the project 3 points under Water Efficiency credit 2: Additional Indoor Plumbing Fixture and Fitting Efficiency

What is LEED-EB?

Example: Energy & Atmosphere Credit 1 – Optimized Energy Efficiency Performance

- Using EPA's ENERGY STAR Portfolio Manager Achieve a rating of:
 - 69 for 2 points
 - 71 for 3 points
 - 73 for 4 points
 - 75 for 5 points
 - 77 for 6 points
 - 79 for 7 points
 - 81 for 8 points
 - Up to 95+ for 15 points
- Integrated Team required:
 - Building Engineer
 - Engineer if retrofits are pursued

What is LEED-EB?

Example: Indoor Environmental Quality Credit 3.4-6 – Green Cleaning, Purchase of Sustainable Cleaning Products & Materials

- Implement sustainable purchasing for cleaning materials and products
- Must address:
 - Cleaning products (degreasers, glass, carpet, bathroom, all-purpose cleaners, etc.)
 - Disposable janitorial paper products (paper towels, napkins, tissue paper, toilet tissue, etc.)
 - Trash bags
 - Hand soaps
- Integrated Team required:
 - Procurement
 - Janitorial Staff
 - Facilities Management

LEED-EB & Multi-Tenant Buildings

Why Certify?

Besides all the warm fuzzy reasons . . .

LEED Certification becoming the standard for a Class A Office Building in many markets

Attracts Tenants

- Many large tenants now asking for LEED certification
- Rent for an average of \$11.33 more per sf
- Have an average of 4.1% higher occupancy

Sell for an average of \$171 more per sf

Cutting Operations Cost

Leaders in energy management achieve superior stock and financial performance

Demonstrate corporate social responsibility

Burr, CoStar Study, March 2008 & Innovest Strategic Value Advisors, REIT Study, October 2002

What is the Challenge?

100% of the building area for both base building and tenant spaces

Energy Star covers many building types, but not all

Vacancy must be 25% or less for 12 months of performance period

Commitment and buy-in needed from entire project team

Team needs to be open to changes and upgrades

Collection of necessary data and documentation

Vendor awareness

Determining performance period

Meeting Prerequisites

- Building owner needs to be able to gather data about tenant plumbing fixtures (water closets, urinals, lavatories, kitchen sinks, and janitors sinks)
- Must work with tenants to get utility bills if paid separately, for Energy Star rating
- Need data about number of occupants, number of computers, etc.
- Work with tenants to retrofit if necessary to meet prerequisites

Meeting Credits

If building owner has control of base building mechanical system and maintenance for the building

- 26-29 Credits require tenant involvement of the 92. (approximately 63 points still available)
 - 5 of 12 in Sustainable Sites
 - 2 of 30 in Energy & Atmosphere
 - 10-13 of 14 in Materials & Resources
 - 9 of 19 in Indoor Environmental Quality



Meeting Credits

If building owner does not control cleaning & maintenance of tenant spaces

- 6 additional Credit require tenant involvement. (approximately 57 points still available)
 - 6 more of Indoor Environmental Quality (15 of 19)

OR

If building owner does not control mechanical system

- 33 additional credits and 5 prerequisites require tenant involvement. (approximately 30 points available)
 - 6 of 10 in Water Efficiency
 - 24 more of Energy & Atmosphere (26 of 30)
 - 3 more of Indoor Environmental Quality (12 of 19)

Working with Tenants

Working with Tenants

Surveys

Forming a “Green Committee” with tenant representatives

Tenant education programs & outreach

Building Management implements retrofits desired

Working with Tenants

Surveys

Examples:

- Employee Commuting Habits (Alternative Transportation, 4 points)
- Building Comfort (Occupant Survey, 1 point)
- Effectiveness of Cleaning Staff (Green Cleaning: Custodial Effectiveness, 2 points)

Working with Tenants

TISHMAN SPEYER LEED FOR EXISTING BUILDINGS TENANT QUESTIONNAIRE

Alternative Transportation

Do you have information on employee transportation practices that show who drives single use automobile, who used public transportation and who carpools?

Yes _____ No _____

If not, would an employee survey conducted by Tishman Speyer be acceptable?

Yes _____ No _____

Light Pollution Reduction

Does your interior lighting have automatic shut-off of interior lighting fixtures near the building's exterior?

Yes _____ No _____

If Yes, can you share the shutoff schedule?

Yes _____ No _____

If no, would you consider the installation of a timed automatic shutoff control system?

Yes _____ No _____

Performance Measurement: System-Level Metering

Are you willing to share energy use data for your tenant space? This can be provided either as energy bills or as energy use data exported from energy bills. Cost data is not needed, just monthly use information.

Yes _____ No _____

Sustainable Purchasing: Ongoing Consumables

Are you willing to consider alternative consumables purchasing for products such as printing & copy paper, notebooks & notepads, envelopes, toner cartridges, binders, batteries & desk accessories?

Sustainable considerations include:

- Recycled materials,
- Rapidly renewable materials,
- Regionally harvested materials,
- Forest Stewardship Certification (FSC) paper products, and
- Rechargeable batteries.

Yes _____ No _____

If Yes, are you willing to share cost information of ongoing consumables?

Yes _____ No _____

Sustainable Purchasing: Durable Goods – Electric Powered Equipment

Are you willing to consider alternative consumables purchasing for electric power equipment? Sustainable considerations include:

- Computers,
- Monitors,
- Copiers,
- Printers,
- Scanners,
- Fax machines,
- Refrigerators,
- Dishwashers,
- Water coolers,
- External power adapters,
- Televisions,
- Other audiovisual equipment,
- Maintenance equipment and vehicles,
- Landscape equipment, and
- Cleaning equipment

Yes _____ No _____

If Yes, are you willing to share cost information of electric powered equipment?

Yes _____ No _____

Sustainable Purchasing: Durable Goods – Furniture

Are you willing to consider alternative consumables purchasing for furniture? Sustainable considerations include:

- Recycled materials,
- Refurbished, and reused
- Rapidly renewable materials,
- Regionally harvested materials,
- Forest Stewardship Certification (FSC) paper products, and
- Rechargeable batteries.

Yes _____ No _____

If Yes, are you willing to share cost information of furniture?

Yes _____ No _____

Sustainable Purchasing: Food

Are you willing to consider alternative purchases for food and beverages? Sustainable considerations include:

- labeled USDA Certified Organic,
- Food Alliance Certified,
- Rainforest Alliance Certified,
- Protect Harvest Certified,
- Fair Trade or Maine Stewardship Council's Blue Eco-Label, or
- Produced within a 100-mile radius of the site.

Working with Tenants

“Green Team” Approach

Examples:

- Tenant energy usage & metering (Performance Measurement System Level Metering, 2 points)
- Tenant purchases (Sustainable Purchasing, 6 points)
- Drawings of tenant spaces to document day lighting levels and views in tenant spaces (Daylight & Views, 2 points)

Working with Tenants

Tenant Education

Examples:

- Educate tenants on what the building can recycle & ways to make the program more effective (Solid Waste Management, 3 points)
- Educate tenants on sustainable purchasing options available (Sustainable Purchasing, 6 points)
- Educate tenants on alternative transportation options and amenities available. (Alternative Transportation, 4 points)
- Educate tenants on things they can do to save energy (Optimized Energy Efficiency Performance, 15 points)

Working with Tenants

Owner/Tenant Retrofits

Examples:

- Lighting controls to turn off building lights at night (Light Pollution Reduction, 1 point)
- CO₂ sensors (IAQ Best Management Practices, Outdoor Air Delivery Monitoring, 1 point)

Questions?

A large, full-canopied green tree stands on a grassy hill. The sky is a deep blue with scattered white clouds. The foreground is a vast, green field.

Thank you