

Energy Audit

Ghirardelli

*Environmental Building Strategies' view:
"Energy, efficiency, costs, operations, facilities, building management, operating expenses, NOI, ROI, Discounted Payback, CAP rate -these terms are highly correlated yet rarely thought of in the same sentence."*

Our Goal: To provide customers with energy reduction solutions showing compelling returns on their investment as well as strategies to comply with AB 1103, ENERGY STAR, and LEED for Existing Building Operations & Maintenance.



Environmental Building Strategies provides a comprehensive approach to existing commercial facilities. With the passage Assembly Bill 1103 (an energy use disclosure act) and its enforcement beginning in 2011, building energy efficiency is now imperative. No longer can property owners think their buildings are comparable without understanding operational efficiency as it dictates Net Operating Income and therefore impacts property value.

ENERGY STAR Portfolio Manager is an energy efficiency starting point, but an on-site audit of the building systems is a necessary approach in making sure a building is compliant, efficient, and properly valued. Our Professional Engineers are experienced, qualified, and will make finding money saving opportunities easy.

ABILITIES

- Commercial Energy Audit
- Existing Building Commissioning (EBCx)
- ENERGY STAR Compliance
- Tax Credit/Rebate Analysis
- ASHRAE Level I, II, III Assessment

BENEFITS

- Demonstrates Increase in NOI
- Reduces Vacancy Rates
- Healthy, Comfortable Environment for Occupants
- Lowers Operating Costs
- Increases Value/Marketability
- Energy Efficiency

**environmental
BUILDING STRATEGIES**

Environmental Building Strategies
San Francisco, CA | Los Angeles, CA | Aspen, CO
www.EBSconsultants.net

415.329.7100

LEED Certification

*Environmental Building Strategies' view:
"The Leadership in Energy and Environmental Design (LEED) Green Building Rating System encourages and accelerates adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria."*

Our Goal: To provide independent, third-party documentation and verification that a building meets the highest green building performance standards as dictated by the USGBC—the most recognized authority on green building. EBS' in house tools will optimize project design, construction, or operating costs while achieving the highest level of LEED Certification.

ABILITIES

- Documentation
- Project Management
- Product Compliance
- Design Charrette Facilitator
- Commissioning
- Energy Modeling
- Tax Incentive Analysis
- LCCA



BENEFITS

- Lowers Operating Expenses/Increased Asset Value
- Reduces Landfill Waste
- Conserves Energy and Water
- Health/Safety for Occupants
- Reduces Harmful Greenhouse Gas Emissions
- Qualifies for Tax Reduction, Cost Rebates, Zoning Allowances
- Increases Employee Production
- Increases Marketability
- Mitigates Risk of Obsolescence
- Demonstrates an Owner's Commitment to Environmental Stewardship

Environmental Building Strategies can facilitate LEED for:

- New Construction (NC)
- Core and Shell (CS)
- Commercial Interiors (CI)
- Existing Buildings Operations & Maintenance (EBOM)
- Homes (H)
- Neighborhood Development (ND)

Building Commissioning

*Environmental Building Strategies' view:
"Commissioning is a strategy that ensures the design and construction delivery process is streamlined in an effort to reduce change orders increase occupant satisfaction and educate building managers on the most efficient way to operate their building systems."*



Our Goal: To deliver a facility that operates beyond expectations while meeting the needs of an owner's budget, its occupants comfort desires, and management's daily needs.

At Environmental Building Strategies our commissioning program is the quality process for documenting and achieving the performance of systems and equipment that meet the basis of the design, owner's project requirements, and prepare personnel for the maintenance and operations of facilities.

ABILITIES

- HVAC/Air Distribution System
- Plumbing /Piping Systems
- Heating/Cooling Plant Equipment
- Control/Electrical Systems

BENEFITS

- ~8-20% Reduction in Operating Expenses for Commissioned Buildings
- Fewer Change Orders
- Lowers Energy Usage
- ~20-50% ROI (1 yr)
- Reduces Operational Problems

At the conclusion of a project we provide documented evidence showing the systems will consistently meet the standards of the Owner's Project Requirements. This philosophy allows Environmental Building Strategies delivery of facilities that satisfy the most demanding performance expectations.

Residential

*Environmental Building Strategies' view:
"The owner of a residence has different needs than the owner of a commercial building, homeowners' intentions are aligned as much with health, comfort, and safety as with the bottom line."*

Our Goal: To use our sustainability expertise and building science techniques to provide the customer with energy reduction strategies as well as solutions for living a more healthy and sustainable lifestyle.

ABILITIES

- HERS Verification
- GreenPoint Certification
- Building Diagnostic Testing
- ENERGY STAR Compliance
- Tax Credit/Incentive Analysis
- LEED for Homes Certification
- California Multifamily New Homes Energy Efficiency Program
- New Solar Homes Partnership

BENEFITS

- Healthy, Comfortable Environment for Occupants
- Energy Efficiency
- Reduces Water Consumption
- Conserves Natural Resources
- Financial Incentives, Tax Rebates
- Increases in Value/Marketability



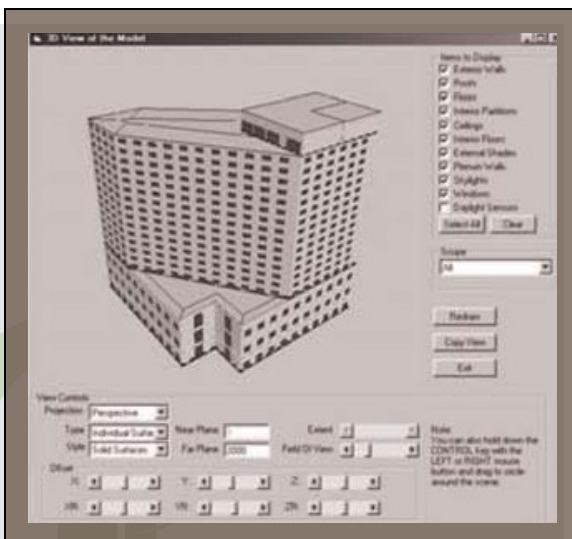
Environmental Building Strategies specialize in Energy Efficiency, HERS Verifications for ENERGY STAR, GreenPoint Rated, The New Solar Homes Partnership, the California Multi-Family New Homes Energy Efficiency Program, and LEED. Determining costs savings and energy efficiency opportunities are our first priority when looking into a residential project whether it be a suburban LEED ND development or a low income mid-rise urban project.

Energy Modeling

*Environmental Building Strategies' view:
"Architects and the building owners have little experience with energy modeling - energy simulation software has the power to inform the design/decision making process and when properly used, energy modeling can optimize the building's energy and financial performance giving owners the knowledge to invest in Triple Bottom Line strategies."*

Our Goal: To make great buildings by using advanced energy modeling techniques combined with the latest software to provide clients with energy use and energy cost forecasting information.

Using various energy modeling techniques, Environmental Building Strategies determines building parameters with the goal of improving energy efficiency and thermal comfort, keeping cost-effectiveness a priority. We model the proposed building, forecast energy usage, then determine strategies that conserve energy, comply with ENERGY STAR, or achieve LEED Certification.



ABILITIES

- Whole Building Energy Simulation
- eQuest
- Energy Pro
- Title 24
- Target Finder/Portfolio Manager
- 179D Tax Credit

BENEFITS

- Takes Only Hours to Demonstrate 40-70% Energy Savings with Little to No Increase in Construction Cost
- Forecasts Operational Performance
- Shows Impact of Different Energy Consumption Strategies

Life Cycle Cost Analysis

Environmental Building Strategies' view:

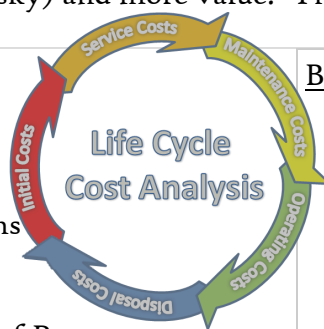
"We use Life Cycle Cost Analysis (LCCA) to estimate the overall costs for project alternatives, allowing us to advise the most appropriate Triple Bottom Line design. This ensures the operational costs of ownership without sacrificing quality or function. Performing cost analysis early in the design process ensures a reduction in life-cycle costs and increased facility appreciation."

Our Goal: To provide our clients with an assessment of their buildings' sustainability potential and advise the wisest design strategies for achieving the highest Triple Bottom Line. GAP Analysis determines a baseline for the facility's current energy costs compared to cost savings from implementing sustainable strategies.

A Life Cycle Cost Analysis determines whether a higher performing HVAC system or sophisticated glazing system will derive value or not. Some alternatives incur higher initial costs, but our clients are looking to maximize Net Operating Income. Dramatically reduced operating and maintenance costs moves money otherwise allocated for a utility to the owner's pocket, all the while netting a lower cap rate (less risky) and more value. This is the power of an EBS LCCA.

ABILITIES


- GAP Analysis
- Design Alternatives
- Present-Value Analysis
- Net Savings Calculations
- Discounted Payback
- DOE Software BLCC5
- Modified Internal Rate of Return
- NOI/Building Value
- 179D Tax Credit



BENEFITS

- Reduces Future Operational Expenses
- Increases Building Value
- Avoids Inaccurate Project Alternatives
- Fewer Change Orders
- Improves IRR and NPV
- DOE Software Allows Precise Financial Projections of Design Strategies

Net Zero Consulting



*Environmental Building Strategies' view:
"Net Zero Consulting uses an innovative design process and inspired delivery team in order to produce projects with Net Zero sustainability metrics. This level of performance requires extensive effort, but the results are beyond compare."*

Our Goal: To achieve true Zero Net Energy performance and integration EBS meshes the expertise of diverse professionals in an evolving dialogue and development around project purpose, resources, and vision. This exciting in-depth process yields a uniquely tailored solution for each project combining social, environmental, and financial sustainability objectives. Uncommon to green building and especially ZNE, the EBS' process also yields projects that consume less energy and resources with no increase in construction costs. The process and expertise that EBS brings to ZNE projects inspires clients to produce exemplary systems.

ABILITIES

- Energy Efficiency Measures (EEM)
- Life Cycle Cost Analysis (LCCA)
- Collaborative Design Facilitation
- Integrated Passive and Active Design

BENEFITS

- Isolation from future energy price increases
- Higher building resale value
- Increase comfort due to uniform interior temperatures
- Projects that fit their exact needs