

Go Lean To Make Green

Presented by

LAW OFFICES
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PROFESSIONAL CORPORATION



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Meet the Gilchrist & Rutter Sustainability Practice Group



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Gilchrist & Rutter's Sustainability Practice

Gilchrist & Rutter has been providing legal services in California since 1985. Our [Sustainability Practice Group](#) provides expert guidance by helping clients to:

- ✦ navigate local, state and federal laws dealing with a project's environmental impact
- ✦ clarify legal requirements to maximize investments in "green" technology
- ✦ incorporate green building considerations in design and construction contracts
- ✦ address project sustainability issues in vendor/service provider contracts
- ✦ draft leases to address landlords' and tenants' concerns about increased energy efficiency and reducing a project's environmental footprint



Gilchrist & Rutter is proud to be a member of the ABA-EPA Law Office Climate Challenge.

This program is sponsored jointly by the American Bar Association and the U.S. Environmental Protection Agency. Member law firms become "energy stewards" through their dedication and focus on their internal, operational and environmental practices.



Summary of Key Sustainability Statutes

AB 758

Signed into law on October 12, 2009

Will require all existing residential and commercial buildings to reduce energy consumption. Three-quarters of all homes and apartments were constructed before the first energy efficiency building standards (Title 24) were implemented. The CEC is required to develop a program to achieve energy savings by March 2010.

Retrofitting and weatherizing an existing building can:

- Lower utilities costs for residents
- Reduce greenhouse gas emissions
- Reduce stress on our power grid
- Reduce the likelihood of rolling blackouts (remember summer of 2000?)



Summary of Key Sustainability Statutes

[AB 1103](#)

Effective as of January 1, 2009, AB 1103 (aka Public Resources Code §25402.10) has required commercial landlords to upload energy consumption benchmarking data to the Energy Star Portfolio Manager (website). Originally scheduled to become effective on January 1, 2010, but now delayed to address questions related to privacy and to exempt utility companies from confidentiality laws that would otherwise prohibit the release of benchmarking information required by AB 1103, commercial landlords will be required to disclose energy consumption benchmarking data for at least the past twelve month period to prospective buyers, lenders and to tenants of single-occupant buildings. [AB 531](#) removes the hard effective date of January 1, 2010 from AB 1103 to allow the CEC to develop an implementation schedule that satisfies both the benchmarking and confidentiality requirements of current law.



Summary of Key Sustainability Statutes

[SB 375](#)

This Anti-Sprawl Law affects development plans and the CEQA review process for new developments. The objective is to reduce vehicle miles traveled and GHG emissions from transportation by encouraging transit-oriented, higher-density development projects. Guidelines (due by December 31, 2009) are currently being prepared by the regional targets advisory committee appointed by CARB to establish factors to be considered and methodologies to be used for setting GHG emission reduction targets for affected regions.



Summary of Key Sustainability Statutes

AB 32

The Global Warming Solutions Act of 2006 requires reduction of GHG emissions to 1990 levels by 2020. Transportation and energy consumption are largest targets for reductions in GHG emissions. AB 32 Scoping Plan (expected to be adopted in 2011 and effective in 2012) will include a Cap and Trade program allowing higher emitting businesses and industries to purchase rights to emit carbon in amounts in excess of cap.



Sustainability Issues for Owners and Asset Managers to Consider

1. LEASES

- **Who pays for “green” improvements?** Landlords should have their form leases evaluated to make sure they permit the landlord to pass-through to tenants the costs of improvements required to make a building more energy efficient. Many operating expense provisions already permit government mandated or cost-saving capital improvements to be treated as operating expenses, but do not address costs of energy audits, LEED and Energy Star certification costs, evaluation and certification of actual cost savings achieved, Energy Star benchmarking, and other green monitoring costs.
- **“Taxes” and Cap and Trade Payments** – for carbon emissions or for failing to meet energy reduction targets
- **Submetering Utilities** – to hold tenants accountable for their own energy consumption and to encourage energy efficient practices, landlords may want to require submetering of utilities. Leases will need to address who pays for the cost of installation, recalibration and maintenance of submeters, compliance with PUC, costs of reading submeters and preparing invoices



Sustainability Issues for Owners and Asset Managers to Consider

1. LEASES, Continued

- **Tenant Alterations** – require tenants to comply with sustainability standards for the Project
- **Use and Rules and Regulations** – require tenants to purchase Energy Star rated equipment and comply with energy reduction, recycling, and other sustainability policies for the Project (this may impact LEED certification)



Sustainability Issues for Owners and Asset Managers to Consider

2. ASSET MANAGEMENT

Review and document contracts with energy auditors, consultants and contractors providing services and work. Require vendors and service providers to adopt verifiable sustainability practices, use recycled/green materials and recycle materials when practicable.



Sustainability Issues for Owners and Asset Managers to Consider

3. CONSTRUCTION

Contracts with architects, engineers and contractors must be coordinated to properly allocate responsibility for achieving the sustainability goals established by owner. Many factors taken into account to obtain LEED certification:

- Sustainable sites (takes into account alternative transportation, light pollution, storm water management, heat island and sustainable landscaping, among other things)
- Water efficiency
- Energy efficiency and atmosphere
- Design for optimal energy performance
- Building operations and management (includes building systems monitoring)
- Materials and resources (includes source reduction, waste management, and storage and collection of recyclables)
- Indoor environmental quality (includes day-lighting, green cleaning supplies, controllability of lighting, temperature and ventilation systems)
- Innovation in operations, upgrades and maintenance (important to document additional benefits achieved)



Sustainability Issues for Owners and Asset Managers to Consider

4. RISK MANAGEMENT

- Evaluate changes to insurance to make sure client can recover the extra expenses of rebuilding to a green standard. Consider adding coverage to include:
 - extra expense to purchase power from a public utility until its alternative power generating equipment is repaired or replaced
 - cost of hiring LEED accredited designer and construction professionals
 - registration and certification fees to get LEED certification
 - retrofit with energy-efficient equipment
 - to the extent it takes longer to rebuild to a “green” standard, the loss of income during such longer reconstruction period
 - cost of diverting recyclable debris to recycling center instead of landfill
 - cost of compliance with upgraded green building codes
 - cost to flush reconstructed space with 100% outside air and new filtration media
 - commissioning costs paid to engineers to inspect systems to ensure they are running properly and in an efficient manner



Sustainability Issues for Owners and Asset Managers to Consider

4. RISK MANAGEMENT, Continued

- Consider insuring to recertify building to one level higher than previous LEED certification
- Even if insured property is not currently “green”, consider getting policy to upgrade to “green” after an insured loss
- Consider distinction between building with “green” materials and getting LEED certification



Sustainability Issues for Owners and Asset Managers to Consider

5. POTENTIAL BENEFITS OF ADOPTING SUSTAINABILITY PRACTICES AND RETROFITS

- Decrease in operating costs
- Increase in building value
- Improvement in ROI (*Rule of thumb: reductions in annual operating expenses can be multiplied by 10 (cap rate) to estimate increased building value*)*
- Increase in occupancy
- Rent increase
- Improve user satisfaction and increase productivity
- Improve indoor air quality
- Good PR – help landlord and tenants achieve and report their environmental stewardship efforts to customers and communities. Help differentiate your asset to be more competitive in the market
- Tax credits and financing incentives

* *The HOK Guidebook to Sustainable Design, Second Edition (2006), p. 11*



Sustainability Issues for Owners and Asset Managers to Consider

6. ENERGY EFFICIENCY

The highest operating cost for a commercial building is usually energy, so the best opportunity for operating costs reduction in a down economy is energy efficiency. Energy audits help owners to determine cost effective ways to reduce energy consumption, increase their Energy Star rating and reduce operating expenses.

Additional benefits include enhancing occupant/tenant health and productivity and reducing the building's resource footprint, which in turn can be used to attract and retain tenants and improve the value of the building for refinancing and disposition purposes (as well as meeting financial covenants in existing loan documents).



Sustainability Issues for Owners and Asset Managers to Consider

7. GREEN REMEDIATION

Recognizing that cleanup projects have their own resources footprint, Green Remediation is “the practice of considering all environmental effects of remedy implementation and incorporating options to minimize the environmental footprints of cleanup actions” (US EPA). This includes use, where feasible and consistent with cleanup goals, of state-of-the-art methods for:

- Conserving water and improving water quality
- Increased energy efficiency
- Managing and minimizing toxics and waste
- Reducing emission of air pollutants and greenhouse gases

Additional considerations:

- Cost savings or added cost
- Slowing down the process to allow the remediating party more time to raise funds to pay for remediation or develop a more cost-effective remediation strategy using state-of-the-art technology and best practices.



Meet Members of the Healthy Buildings Solutions Team



Today's presenter:

Brian Setness

Chief Operating Officer

More Members of the HBS Team:

Brian Wilson

Director, Western Region

Yonatan Tadasse

Energy/Resource Efficiency Manager

Nathan Krantz

Director of Sustainability



Healthy Buildings Solutions' Practice

Healthy Buildings Solutions (HBS) is a national green building solutions company that offers a collaborative and transparent approach to the green building process. This unique approach provides clear benefits to HBS' clients through increased Asset Value, Tenant Retention, Productivity, ROI and Lowered Operating Costs.

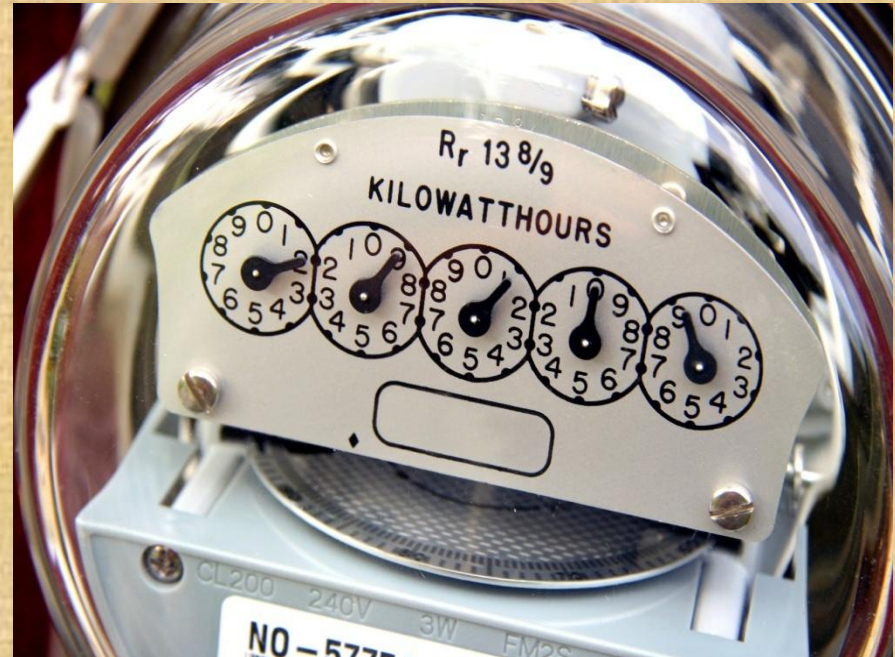
In addition to being experts in the field of green buildings, all of HBS' employees are LEED accredited professionals. HBS professionals provide business-minded, green building solutions in numerous areas, including:

- ⚡ Awareness/Training
- ⚡ Energy and Resource Audits
- ⚡ Onsite Generation Studies
- ⚡ LEED Certification
- ⚡ Feasibility Studies
- ⚡ Load Engineering
- ⚡ Sustainability Reports
- ⚡ BOMA 360
- ⚡ Energy Star Assessments



Overview

- Best Management Practices
- Energy Star
- Energy Audits
- Utility Rate Analysis
- ASHRAE Levels I, II & III
- Case Studies
- Rebates/Incentives



Energy Usage



It has been estimated by the EPA that 30% of the energy used in buildings five years or older is wasted.



Best Management Practices



- Track your Energy Usage
 - Minimum of 12 months of data
 - Review for irregularities
- Research Utility Rate Classes
- Rank your energy usage – Energy Star
- Research Available Rebates
- Tenant Education



Energy Star



- Compares similar buildings' energy usage
 - Utilizes Portfolio Manager tool
- Rating 1-100 = Percentile of energy performance
- Proper space usage classification is key



Introduction to Energy Audits

- **WHAT?** Detailed analysis of how a facility uses energy, what the facility pays for it and recommendations of cost effective energy conservation measures (ECMs).
- **WHY?** Saves energy and reduces cost, to meet regulations, or to save the environment (recognition for being green).
- **HOW?** Recommendations to retrofit inefficient old equipment, implement advanced technologies, control measures and change operational practices.

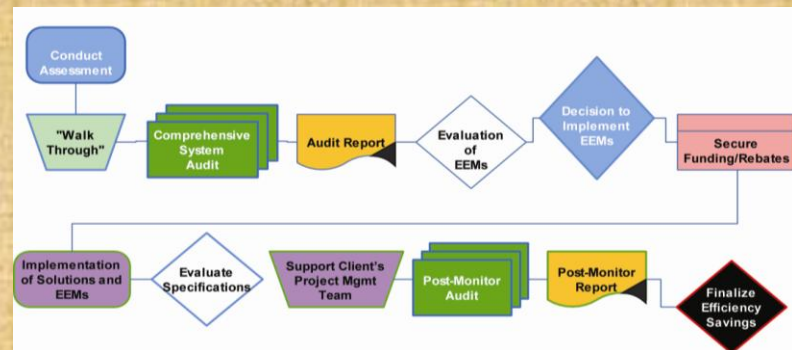


Energy Audits



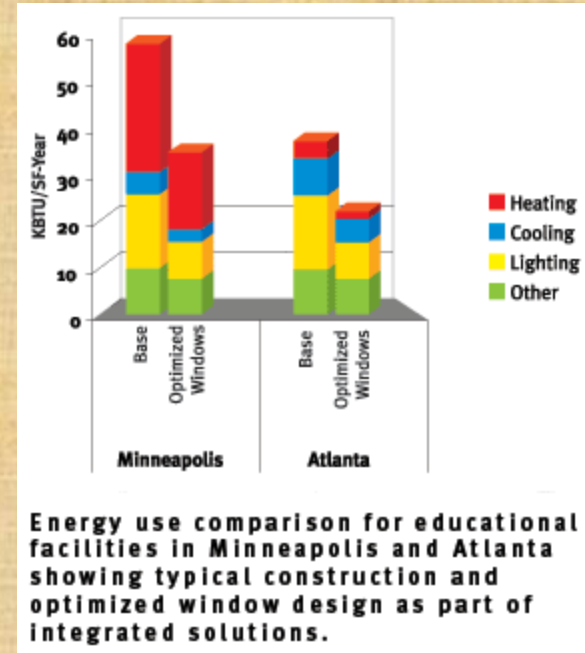
Three Types Recognized by ASHRAE:

- Level I: Walk-Thru Assessment
- Level II: Energy Survey & Analysis
- Level III: Detailed Analysis of Capital Intensive Modifications



Introduction to Utility Rate Analysis

- **WHAT?** It involves analysis of historic utility use and bills
- **WHY?** To reduce energy cost
- **HOW?**
 - Research and analyze alternative rates and tariffs
 - Evaluate alternative rates and tariffs, interpretations, applications and qualifications
 - Analyze the current pattern of usage to develop accurate load shapes



ASHRAE Level 1

Assess the building's energy cost and efficiency:

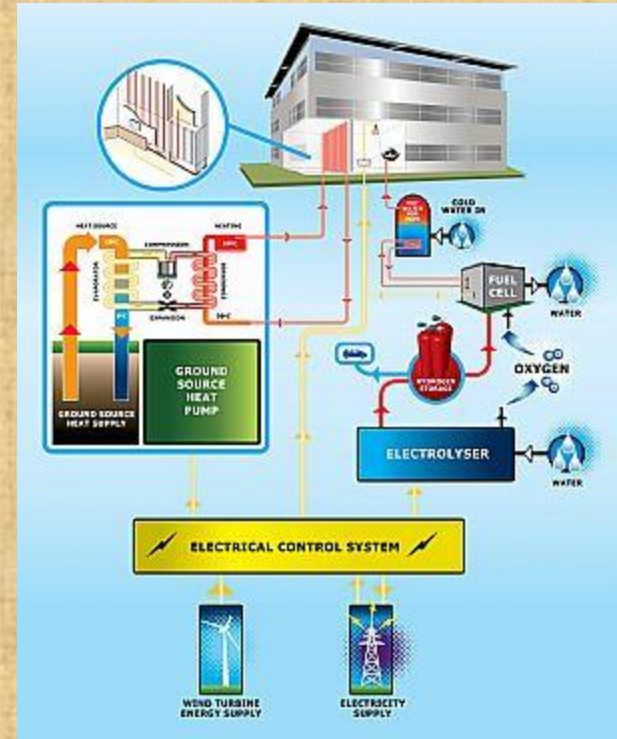
- Survey the building's operating systems
- Review operating procedures
- Preliminary energy use breakdown
- List "Low-Cost/No-Cost" ECMs
- Estimate costs & savings for implementing ECMs (+/- 25%)
- Identify potential capital improvements for further consideration (with cost & savings estimates)



ASHRAE Level II

Detailed Energy Analysis:

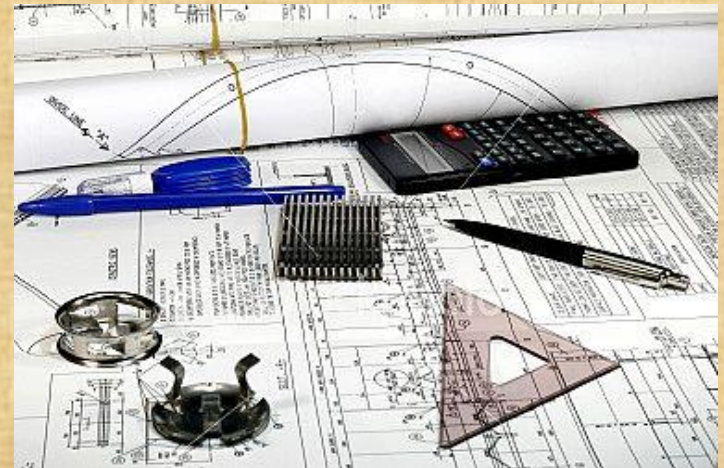
- Detailed review of mechanical plans
- Measure operating parameters and compare with design levels
- Breakdown actual energy use by building system
- Prioritization of what ECMs are practical to owner & how they interact if implemented
- Cost estimates including predicted kWh and \$\$ savings (payback estimate) +/- 15%
- Develop a logical 5-year Cap Ex plan



ASHRAE Level III

Focus on Capital Intensive Improvements

- Detailed engineering & financial analyses
- Provide schematics and equipment selection
- Obtain bids from contractors
- Include construction costs



HBS Case Studies



Nestle America

\$151,474
Annual Energy
Cost Saving

1,320,088
kWh Saved

\$95,271
One Time
Incentive



Source: Healthy Buildings Solutions Ecos



Federal Reserve Bank NY

\$120,694

Annual Energy
Cost Saving

\$85,851

Annual REC Income

291 kW

Solar PV Project

6 Year Payback

Source: Healthy Buildings Solutions



Federal Reserve Bank NY

21%
Annual Energy
Cost Saving

Energy Efficiency
Measures

Source: Healthy Buildings Solutions



Amerigroup Corporate Support Center I & II

18%
Energy
Savings

\$109,151
Annual Energy
Cost Saving

Utility Rate
Negotiation

Source: Healthy Buildings Solutions



Rebates and Incentives

FEDERAL

Energy-Efficient Commercial Buildings Tax Deduction

Tax deduction of \$1.80/sq ft for installation in new or existing buildings of:

- (1) interior lighting
- (2) building envelope
- (3) heating, cooling, ventilation, or hot water systems that reduce the building's total energy and power cost by 50%.

Tax deduction of up to \$0.60/sq ft for installation of individual systems that would significantly contribute to the 50% reduction, if additional systems were installed. Expiration Date: 12/31/2013.

U.S. Department of Energy – Loan Guarantee Program

For innovative technologies with total project costs over \$25 million. Full repayment within 30 years or 90% of projected useful life of asset.



Rebates and Incentives

CALIFORNIA



SCE Retro-Commissioning

Program to subsidize the cost of Retro-Commissioning investigation, participants are required to implement measures with less than 1-year payback. *Incentives average \$0.08 per kWh saved.*



Rebates and Incentives

LOS ANGELES & ORANGE COUNTY

SCE – Standard Performance Contract

Financial incentive to offset the cost of installing high-efficiency equipment/systems (i.e., retrofits) with reductions over a 12-month period. *Eligible to receive up to 50% of total project costs.*

SCE – Express Efficiency

Cash incentives to offset cost of replacing/upgrading equipment with new, energy-efficient technology. *Eligible to receive up to 100% of the measure cost per site.*

LADWP – Non-Residential Custom Performance Program

Utility Rebate Program for energy savings in lighting, air-conditioning & refrigeration, wet cleaning, and other equipment. *\$0.05-\$0.14 per kWh saved.*



Rebates and Incentives

LOS ANGELES & ORANGE COUNTY, Continued

LADWP – Small Business Direct Install Lighting Program

Utility Grant Program w/ Max limit of \$2,500

Anaheim Public Utilities – Commercial Energy Efficiency Rebate Programs

Utility Rebate Program to undergo a feasibility study to include a demand and energy-impact assessment and examine potential energy-efficient upgrades.

Anaheim Public Utilities – Low-Interest Energy Efficiency Loan Program

Low interest rate loan (currently 5%) up to \$350,000 or 10 times the amount of estimated annual savings, whichever is less with 8 yrs to pay.

Additional programs available in Glendale & Burbank.



QUESTIONS?

Should you have any questions for **Gilchrist & Rutter** or **Healthy Buildings Solutions** please direct your questions to:

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Thank You to Our Venue Hosts

Gilchrist & Rutter and **Healthy Buildings Solutions** would like to express their gratitude to the Santa Monica Regional Office of the **Natural Resources Defense Council** for graciously opening the doors of their LEED Platinum certified building for today's event.

We hope that you have found today's presentation helpful, and that you will take away some new thoughts and ideas on sustainability that you can implement within your own organizations.

In keeping with the theme of today's presentation, *no paper handouts have been generated*. You may direct your web browser to www.gilchristutter.com/sustainability to obtain a copy of today's presentation, link to online bios for the presenters, and to take advantage of imbedded links to other topical materials of interest.



Tour of the NRDC Building

For the fortunate first 20 people who signed up to take a tour of the NRDC building, please see Spencer Campbell, who will be waiting just outside the doors of this conference room. A complete tour of this facility may take up to 45 minutes. If you cannot devote time to take the entire tour, please consider allowing someone else to take the tour in your place. Thank you!



[NRDC Regional Headquarters, Santa Monica, CA](#)



Abbreviations of Key Terms Used in Sustainability Statutes

AB	Assembly Bill
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
ECM	Energy Conservation Measure
GHG	Greenhouse Gas
LEED	Leadership in Energy and Environmental Design*
PUC	Public Utilities Commission
ROI	Return on Investment
SB	Senate Bill
USGBC	U.S. Green Building Council

* LEED is an internationally recognized green building certification program by the USGBC providing third-party verification that a building was designed, constructed and operated using strategies intended to improve performance.

