

# *Sustainability and Historic Preservation*

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California State Historic Preservation Officer*

*California Preservation  
Conference  
Napa, California  
April 25, 2008*





**“Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs.”**

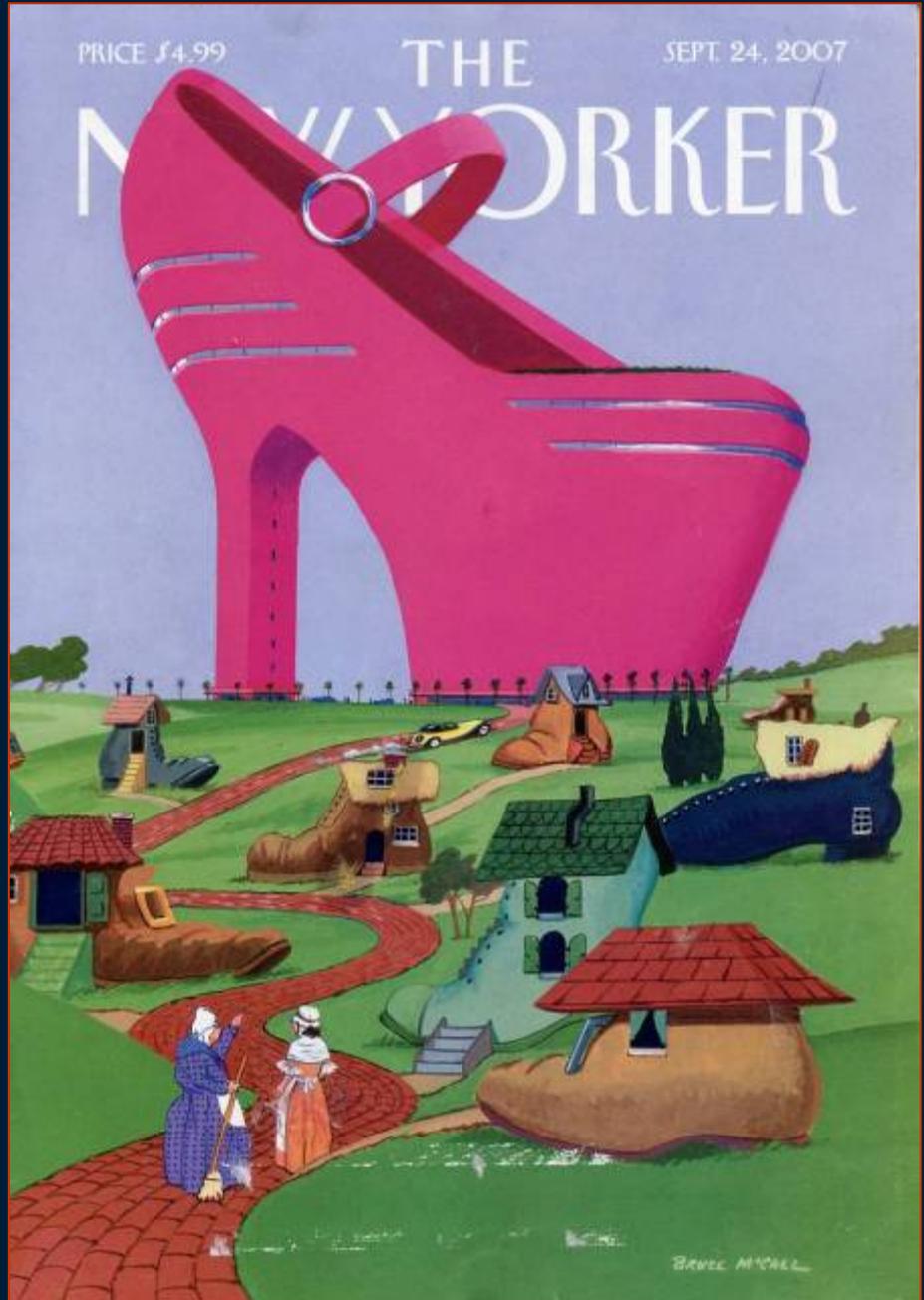
## **WHAT IS SUSTAINABILITY?**

**Source: UN World Commission on Environment and Development, 1987, The Brundtland Report**

PRICE \$4.99

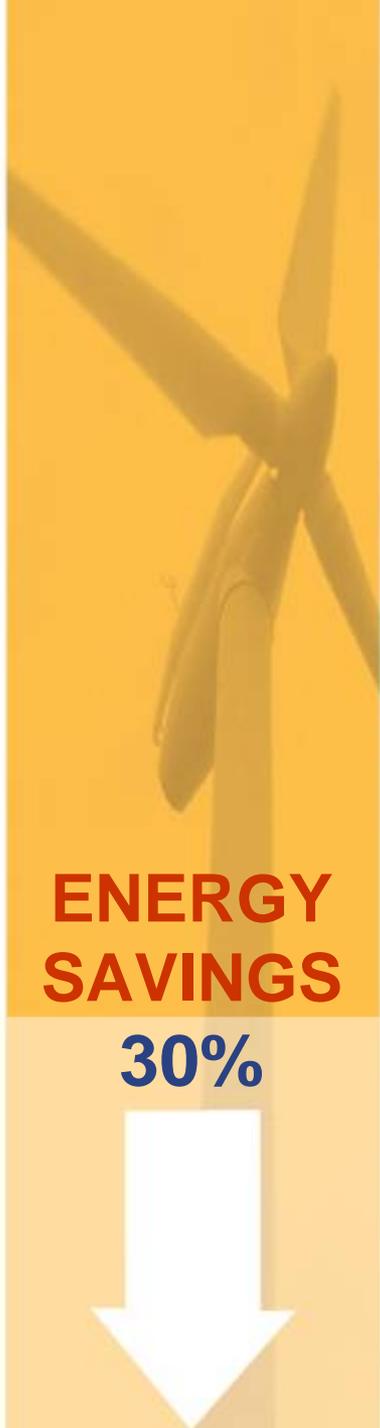
# THE NEW YORKER

SEPT. 24, 2007



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# Average Savings of Green Buildings



Source:  
Capital E

**Architects**

**Product  
Manufacturers**

**Federal,  
Local,  
and State  
Governments**

**Building  
Owners**

**Nonprofit Leaders**

**Planners**

**USGBC**

**Engineers**

**Financial  
Planners**

**Utility  
Managers**

**Interior  
Designers**

**Landscape  
Architects**

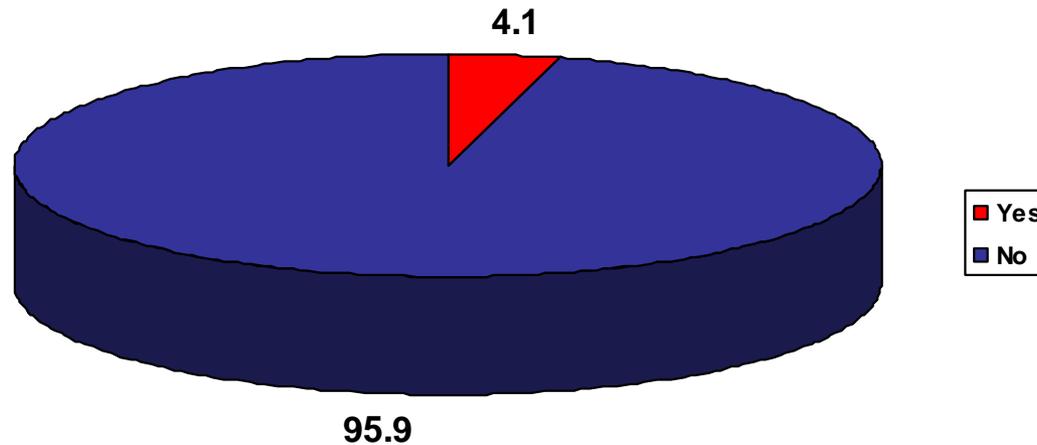
**Building  
Tenants**

**Property  
Managers**

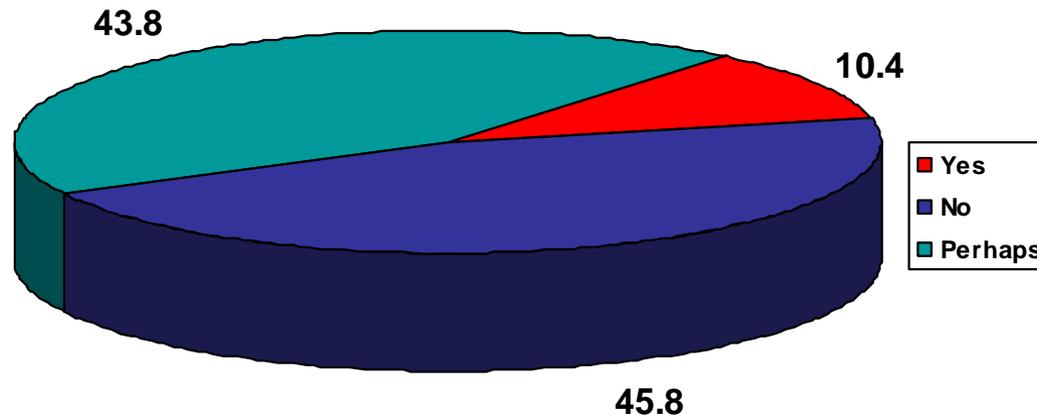
**Code  
Officials**



# NCSHPO Green Preservation Survey

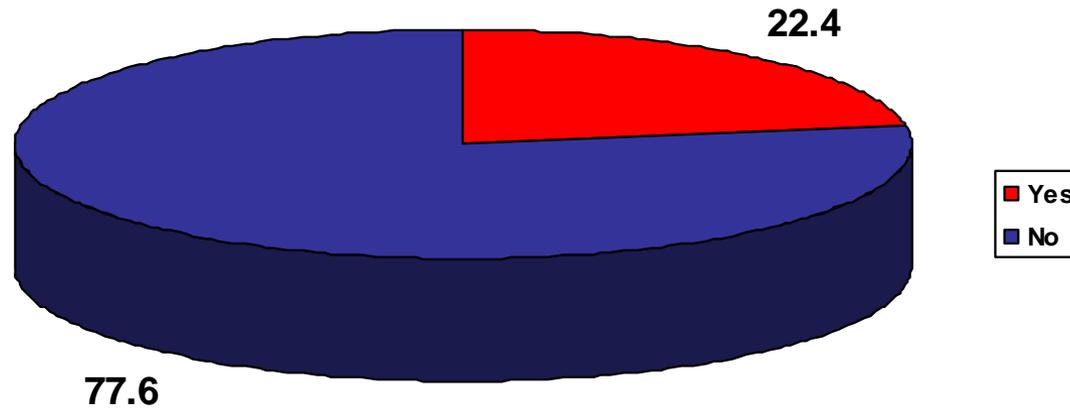


Do you have a LEED AP (accredited Professional) on staff?

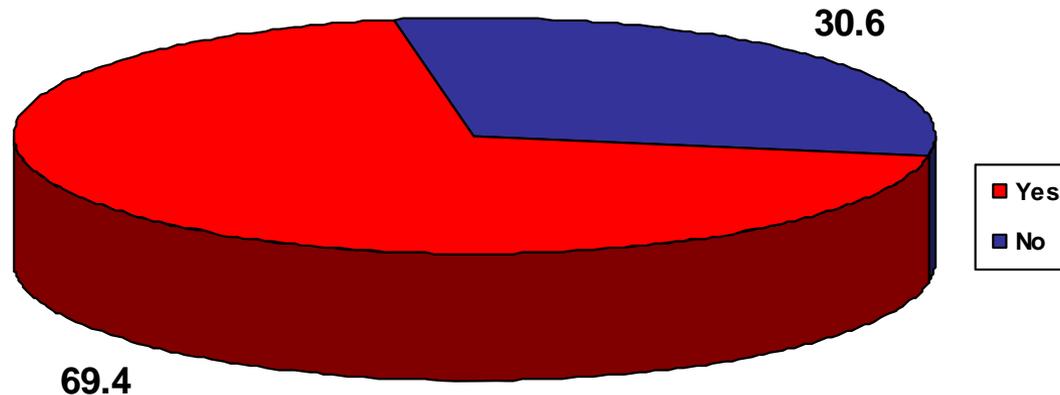


If no, does your office plan to add a LEED AP within the next two years?

# NCSHPO Green Preservation Survey

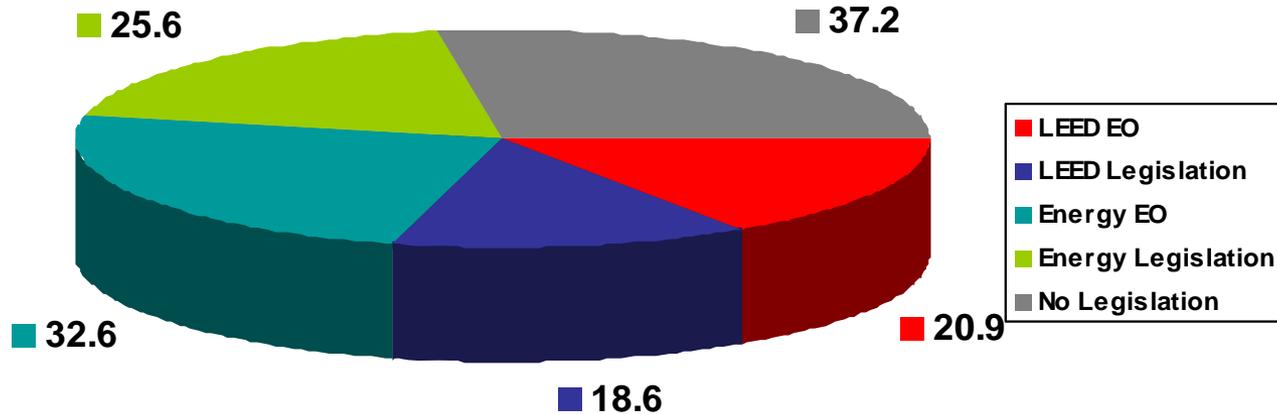


**Does your office web site link or refer to sustainable preservation issues?**

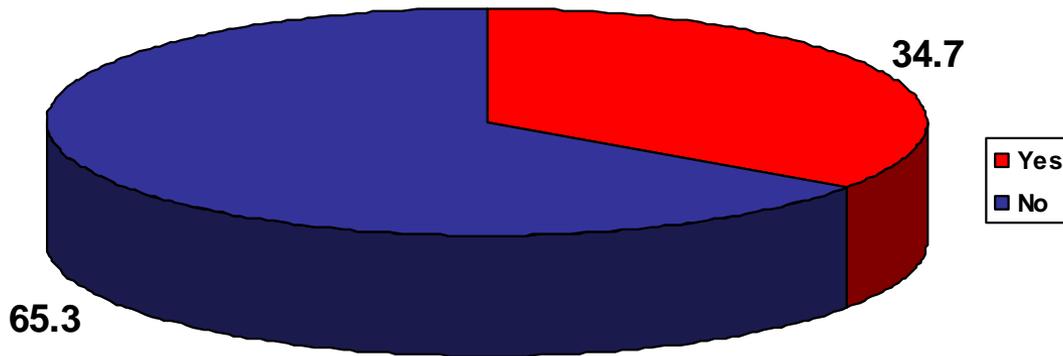


**Has a conflict ever arisen between preservation and sustainability goals in a Section 106, Tax Credit, or other review?**

# NCSHPO Green Preservation Survey



Does your state have an Executive Order or legislation including improved energy efficiency standards or LEED certification for existing state-owned buildings?



Is your office aware of sustainable mandates by your state and local jurisdictional authorities that adversely affect historic preservation?



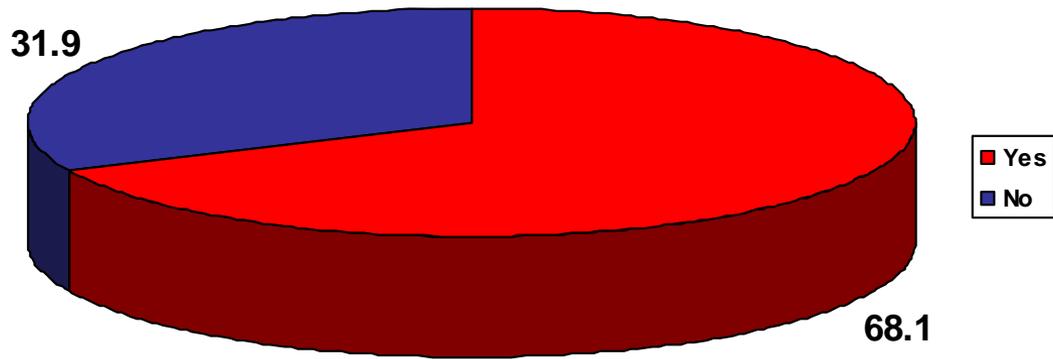
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## WHAT IS EMBODIED ENERGY?

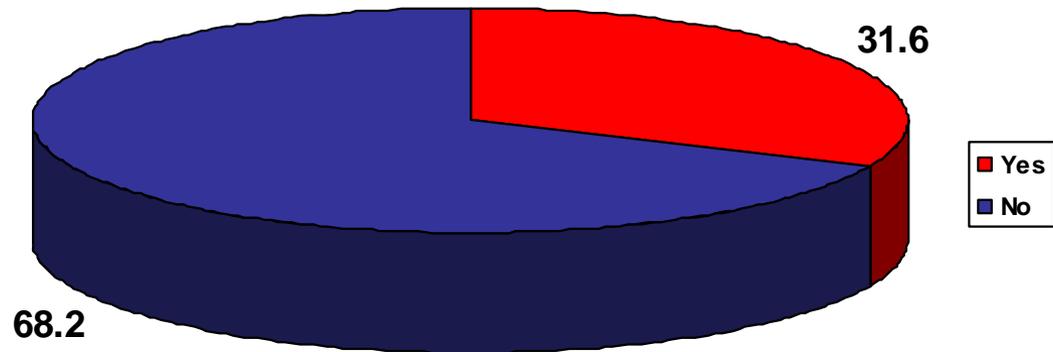
The energy required to extract, process, manufacture, transport and install building materials.



# NCSHPO Green Preservation Survey



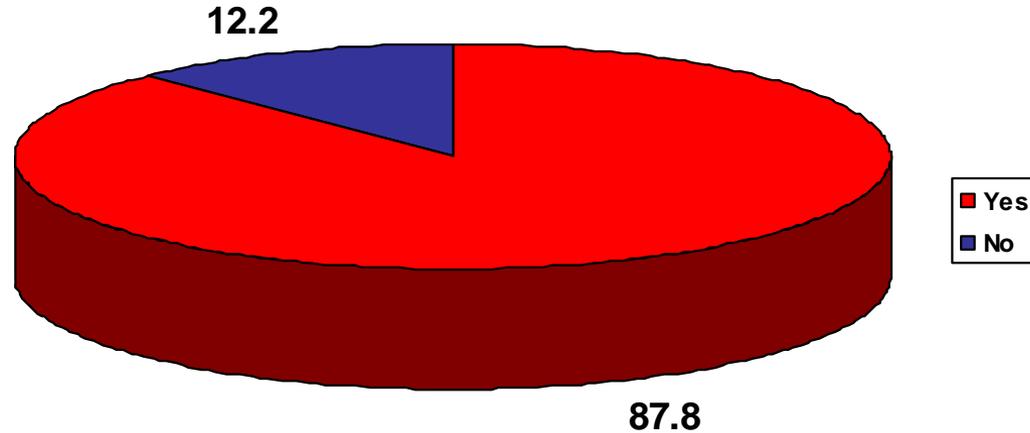
**Has your state adopted the IEBC or other alternative code for historic buildings?**



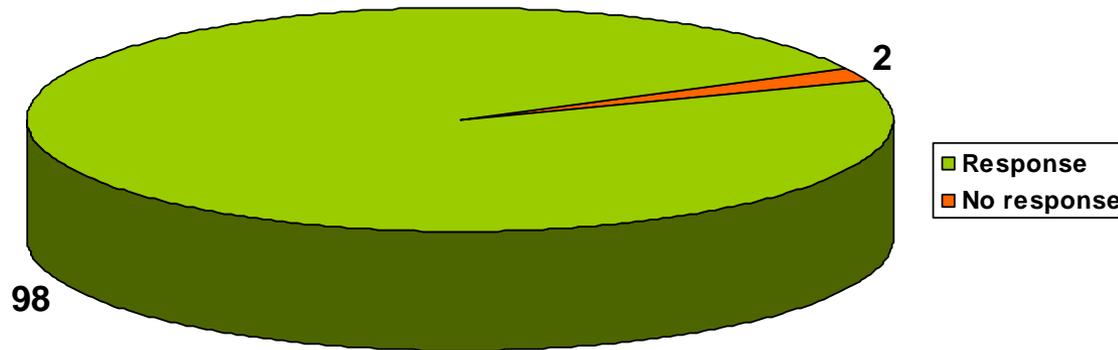
**Does your state and/or local code authorities exempt historic buildings from energy efficiency requirements?**

Source: Survey Monkey Survey 2/27/2008

# NCSHPO Green Preservation Survey



**Does your office promote or discuss sustainability within preservation to your applicants?**



**Survey response (50 of 51 responding)**

# U.S. ENERGY CONSUMPTION

A pie chart illustrating the distribution of U.S. energy consumption across three sectors. The largest slice, representing Buildings at 39%, is colored teal. The second largest, representing Transportation at 32%, is colored grey. The smallest slice, representing Industry at 29%, is colored olive green. The chart is divided into three segments by white lines.

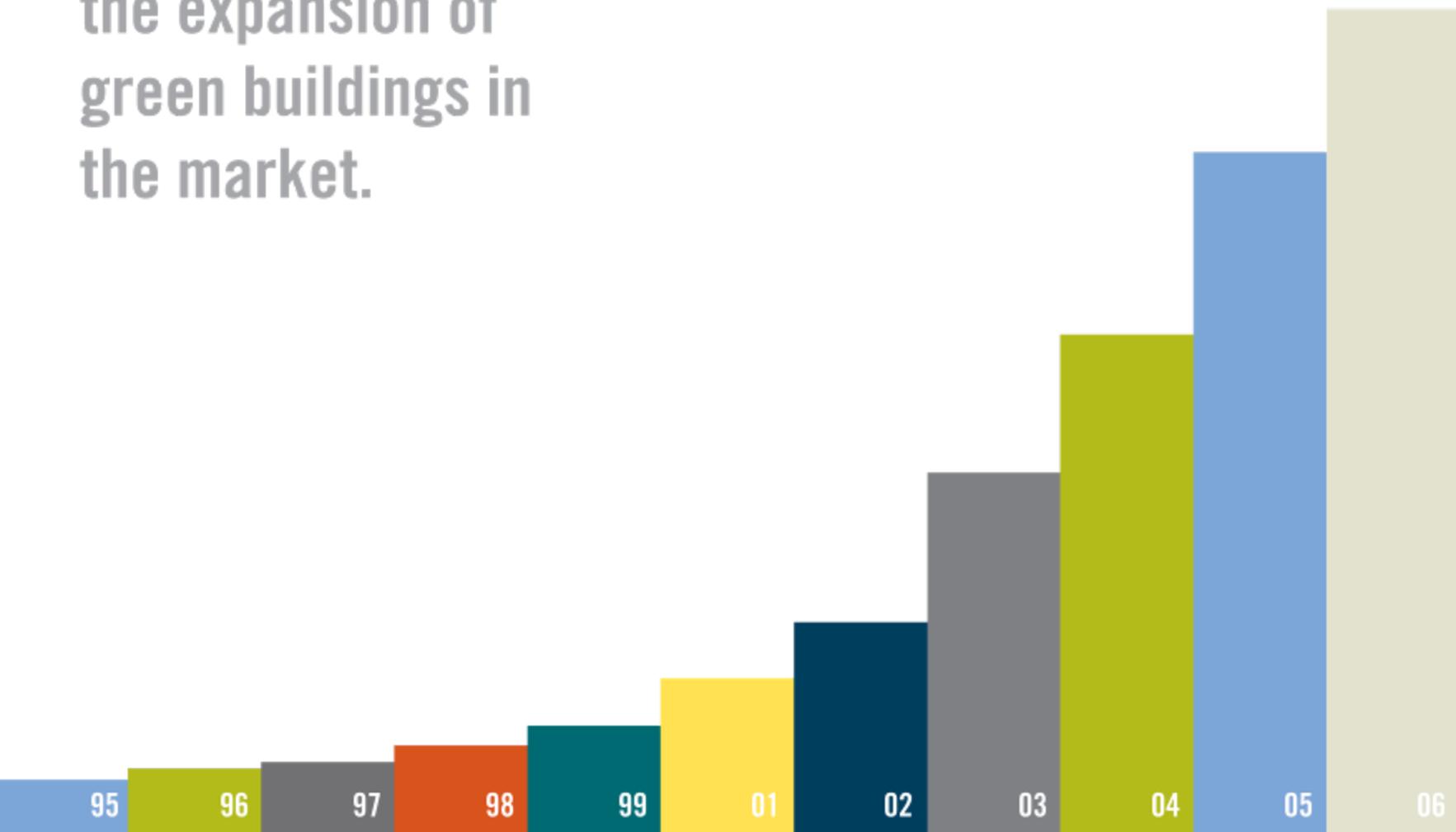
**BUILDINGS**  
**39%**

**INDUSTRY**  
**29%**

**TRANSPORTATION**  
**32%**

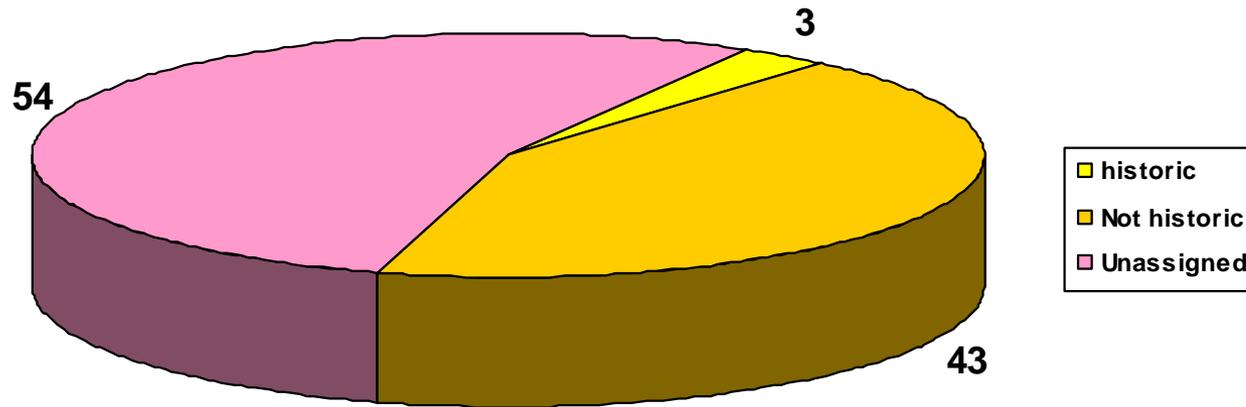
USGBC  
membership  
growth reflects  
the expansion of  
green buildings in  
the market.

13,615 +

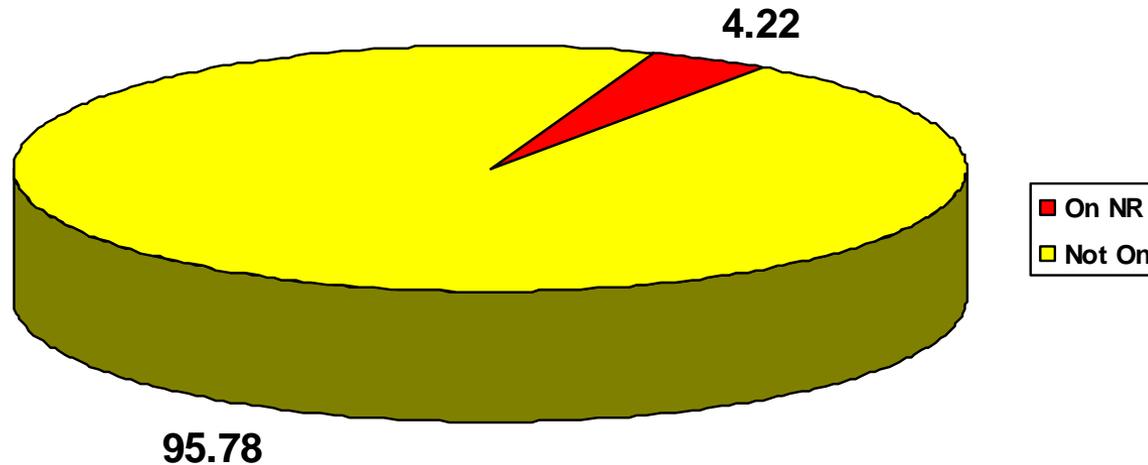




# LEED Projects Nationally



## LEED historic sites



## LEED historic sites on N.R.

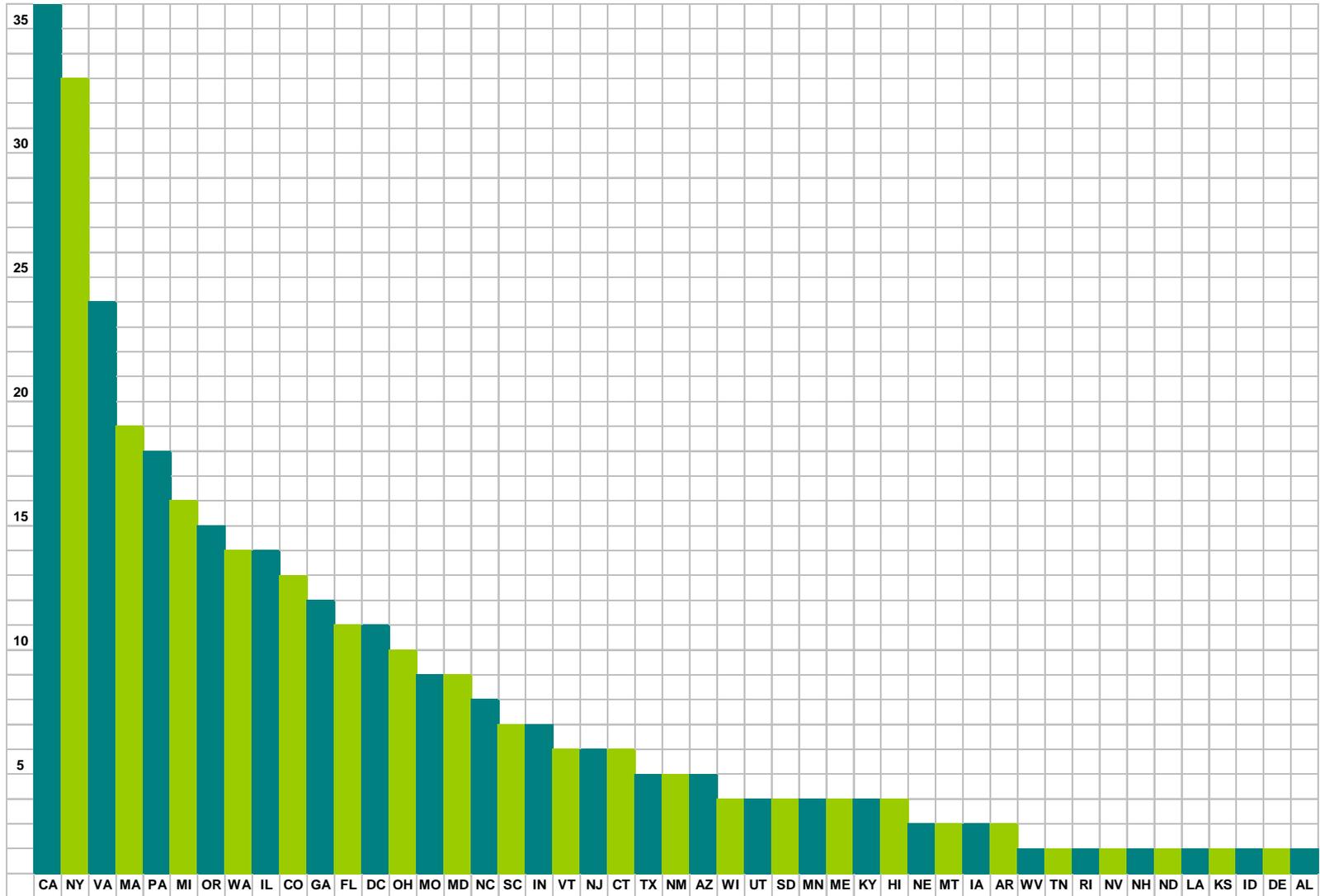
Source: USGBC LEED Project List – PUBLIC (2-1-08).xlsx

# Levels of LEED Ratings

**Green Buildings  
worldwide are certified  
with a voluntary,  
consensus-based  
rating system.  
USGBC has four  
levels of LEED.**



# LEED Historic Projects by State



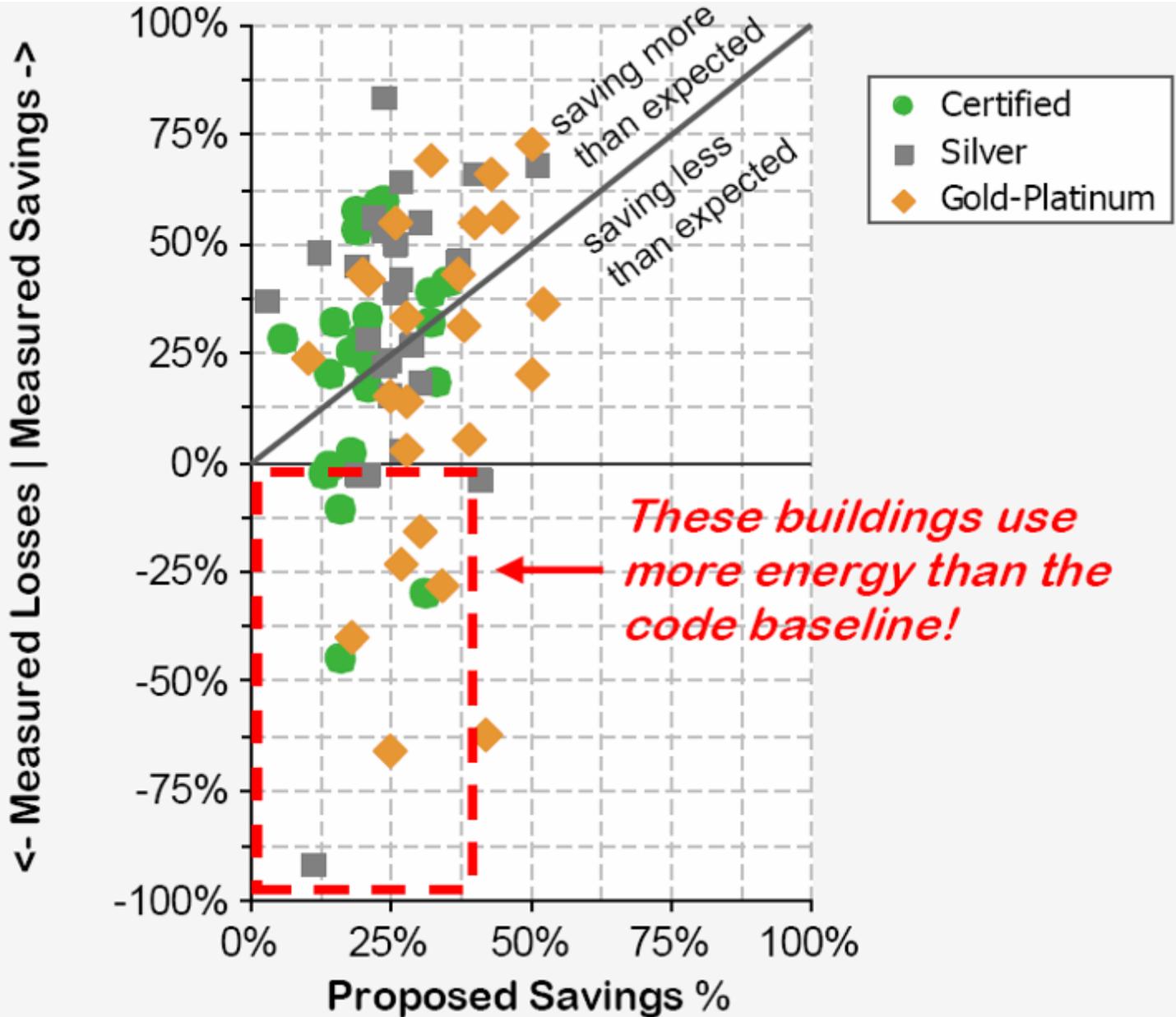
## LEED historic sites by state

Source: USGBC LEED Project List – PUBLIC (2-1-08).xlsx

# Energy Performance of LEED® for New Construction Buildings



FINAL REPORT  
March 4, 2008

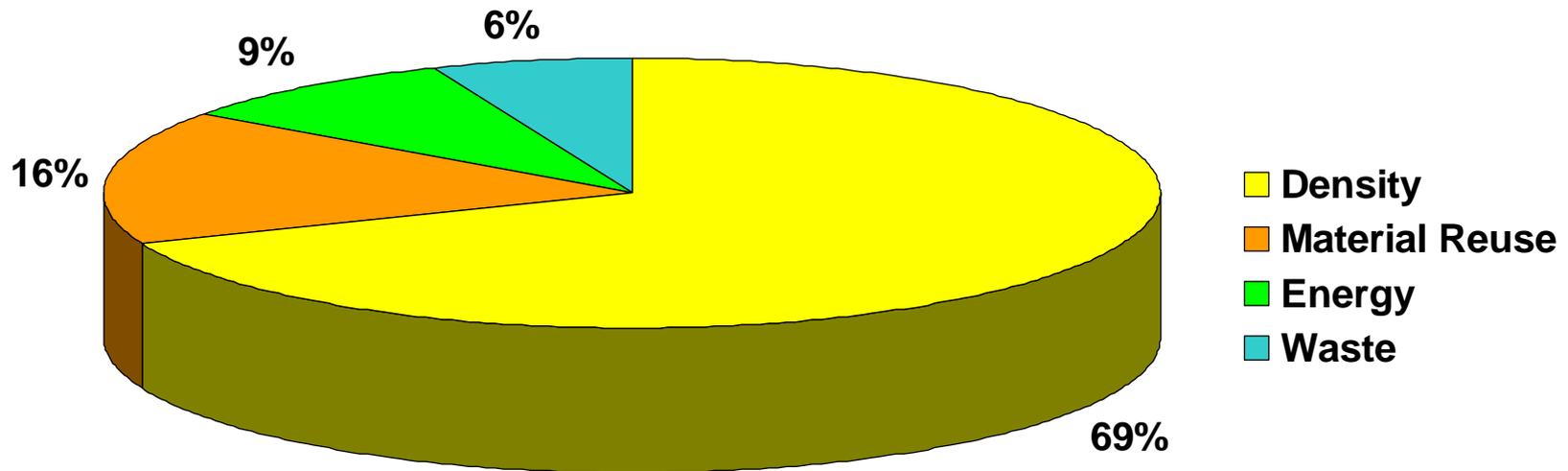


# Draft Green Building Climate and Resource Calculator

Available end of Summer 2008

## Preliminary Impact of selected parameters on CO2 contribution

Developed by StopWaste.org



Initial test development: Oakland Forest City development near the Fox Theater.

Embodied energy is difficult to model and is still under development.

# CALIFORNIA LOCAL GOVERNMENT MEMBERS OF USGBC in March 2007

Alameda County Waste Management

City of Alameda

City of Berkeley

City of Beverly Hills

City of Burbank/ Building Division

City of Calabasas

City of Claremont

City of Costa Mesa Development Services

City of Emeryville

City of Encinitas

City of Fremont

City of Huntington Beach

City of Irvine

City of Livermore

City of Long Beach

City of Los Angeles

City of Lynwood

City of Monterey

City of Oakland

City of Palm Desert

City of Palo Alto

City of Pasadena

City of Pleasanton

City of Rohnert Park

City of Sacramento

City of San Diego

City of San Jose

City of San Leandro

City of Santa Barbara

City of Santa Monica

City of Santa Rosa Utilities Department

City of Santa Rosa

City of Sunnyvale

City of Ventura

County of Alameda

County of Sacramento

County of San Mateo Department of Building  
Inspection

Goleta Water District

Los Angeles County

Port of Oakland

Port of San Diego

SF Bay Area Rapid Transit District

San Gabriel River Discovery Center

Cities in green are Certified Local Governments

# CALIFORNIA LOCAL GOVERNMENT MEMBERS OF USGBC added by March 2008

City of Salinas  
City and County of San Francisco  
City of Lodi  
City of Rocklin  
City of Seaside  
City of Thousand Oaks  
Consumnes Community Services District

Barona Band of Mission Indians  
Central Contra Costa Sanitary District  
Centre City Development Corporation  
Los Angeles Convention Center  
Los Angeles World Airports  
Monterey Regional Waste Management District  
Ontario Redevelopment Agency  
Palm Desert Redevelopment Agency

**37% increase in one year**

Cities in green are Certified Local Governments



## SOCIAL SUSTAINABILITY

**Celebrate existing buildings and provide more reward for the recognized sites of architectural, cultural and social significance using nationally recognized standards and criteria.**

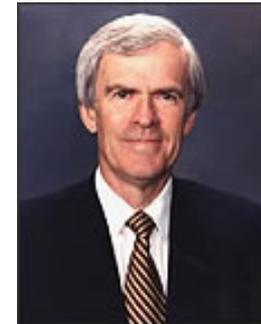
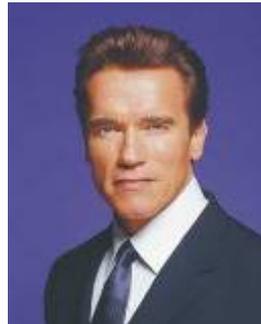
# NCSHPO Strategic Plan 2007-2009

## A State Approach: Sustainability Best Practices

- Keep sustainable goals within preservation visible
  - on SHPO website
  - In newsletters
  - At staff meetings
  - At other state agency meetings
  - With elected representatives

meeting on October 31, 2006, the Board Work Plan "to broaden and build organization and association with an students." This agenda will explore plan or considerations to develop a joint NCSHPO role and historic preservation.

Steve Davidson, the California SHPO and Bob





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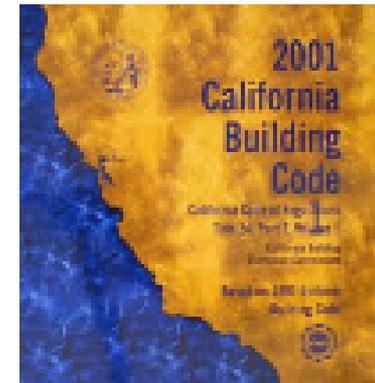
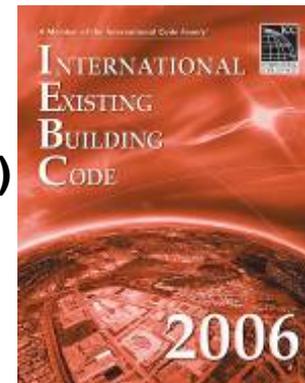
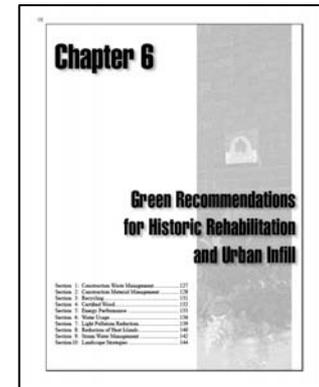
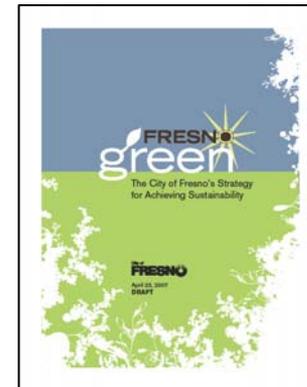
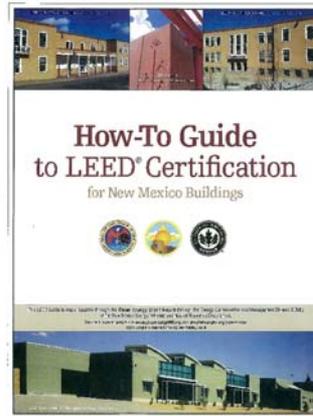
## WHAT IS LIFE CYCLE ASSESSMENT?

A methodology for assessing the environmental performance of a product over its full life cycle

# NCSHPO Strategic Plan 2007-2009

## A State Approach: Sustainability Best Practices

- **Develop model Local Standards**
  - Wabash Valley Chapter 6
  - Fresno Green Guidelines
- **Develop State Guidelines**
  - New Mexico Guidelines
- **Understand locally adopted Codes**
  - 2006 International Existing Building Code (IEBC)
  - 2007 California State Historical Building Code
  - Locally adopted Ordinances





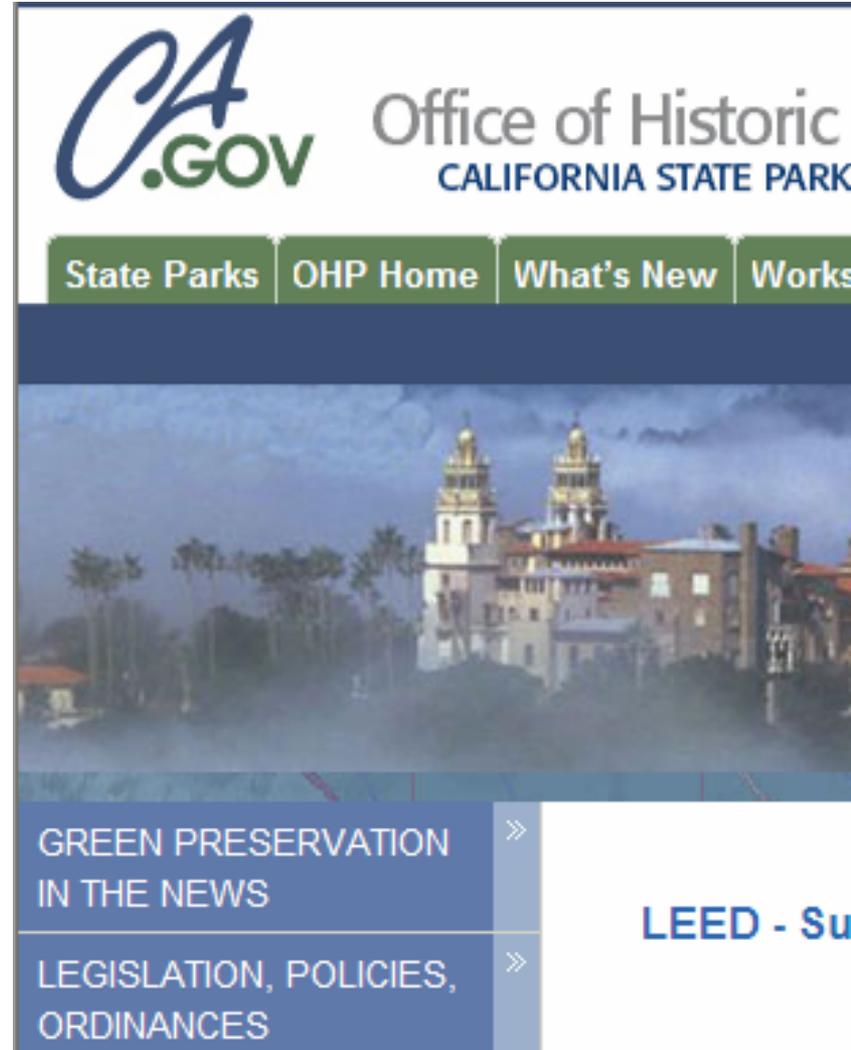
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# THE SUSTAINABLE PRESERVATION COALITION HOW TO BEST INTEGRATE PRESERVATION & CULTURAL VALUES INTO LEED & GREEN RATING SYSTEMS

# NCSHPO Strategic Plan 2007-2009

## A State Approach: Sustainability Best Practices

- **Stay current on sustainable mandates in the form of Executive Orders, legislation and Codes in your state.**
  - Flag language that adversely affects historic preservation
  - Suggest language inclusive of historic preservation
- **Develop or encourage development and adoption of model green ordinances that are preservation inclusive**
- **Promote the responsible integration of sustainability and preservation at public presentations**
- **Become a resource in your state for technical information**



# Lessons Learned:

LEED + HP? Not difficult.

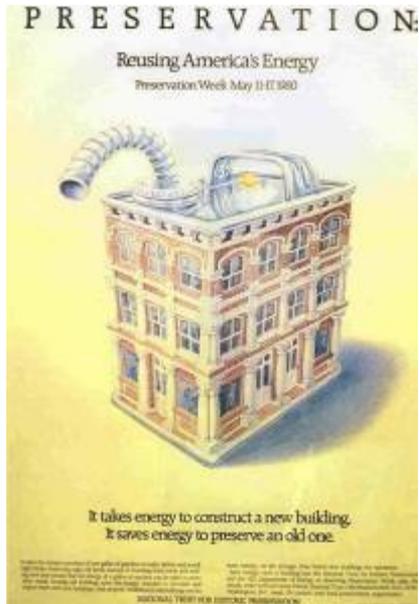
LEED Certification costs \$.  
Commissioning is good.

Adaptive use: green.

Historic Preservation sustains culture,  
heritage, & quality of life.

The Greenest Building is the  
one that's already been built.

*Carl Elefante, Quinn Evans / Architects*



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**CALIFORNIA REPUBLIC**

***GO GREEN***

