

**CITY OF EL PASO, TEXAS
AGENDA ITEM DEPARTMENT HEAD'S SUMMARY FORM**

DEPARTMENT: Office of Economic Development
AGENDA DATE: October 16, 2007
CONTACT PERSON/PHONE: Kathy Dodson, PhD, Director 541-4670
DISTRICT(S) AFFECTED: ALL
SUBJECT: Green Building

BACKGROUND/DISCUSSION:

Presentation by Representative Steve Ortega. Discussion and action directing city staff to conduct a cost/benefits analysis that analyzes requiring city initiated public building projects to achieve a LEED certification.

PRIOR COUNCIL ACTION:

Has the Council previously considered this item or a closely related one?
No

AMOUNT AND SOURCE OF FUNDING:

How will this item be funded? Has the item been budgeted? If so, identify funding source by account numbers and description of account. Does it require a budget transfer?
N/A

BOARD/COMMISSION ACTION:

Enter appropriate comments or N/A.
Approved by Economic Development and Tourism LRC on 09/20/07.

*****REQUIRED AUTHORIZATION*****

LEGAL: (if required) _____ **FINANCE:** (if required) _____

DEPARTMENT HEAD: _____

(Example: If RCA is initiated by Purchasing, client department should sign also). *Information copy to appropriate Deputy City Manager*

APPROVED FOR AGENDA:

CITY MANAGER: _____ **DATE:** _____

Chihuahuan Desert

U.S. Green Building Council



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**



What is green building?



What is green building?



Average Savings of Green Buildings



Source:
Capital E



LEED SYSTEM

LEADERSHIP in
ENERGY and
ENVIRONMENTAL
DESIGN

A leading-edge
system for
certifying
DESIGN &
CONSTRUCTION
of the greenest
buildings in the
world



What is the LEED System?

Point system used to benchmark buildings

- Site planning
- Water management
- Energy management
- Material use
- Indoor air quality
- Innovation

Green Facts

John M. Langston High School
Continuation & Langston-Brown
Community Center
Arlington, Virginia

LEED-NC rating out of 69

Silver 35

Sustainable Site 8

Water Efficiency 3

Energy & Atmosphere 4

Materials & Resources 6

Indoor Environmental
Quality 11

Innovation & Design 3

USGBC LEED-NC rated Sept. 3, 2003.

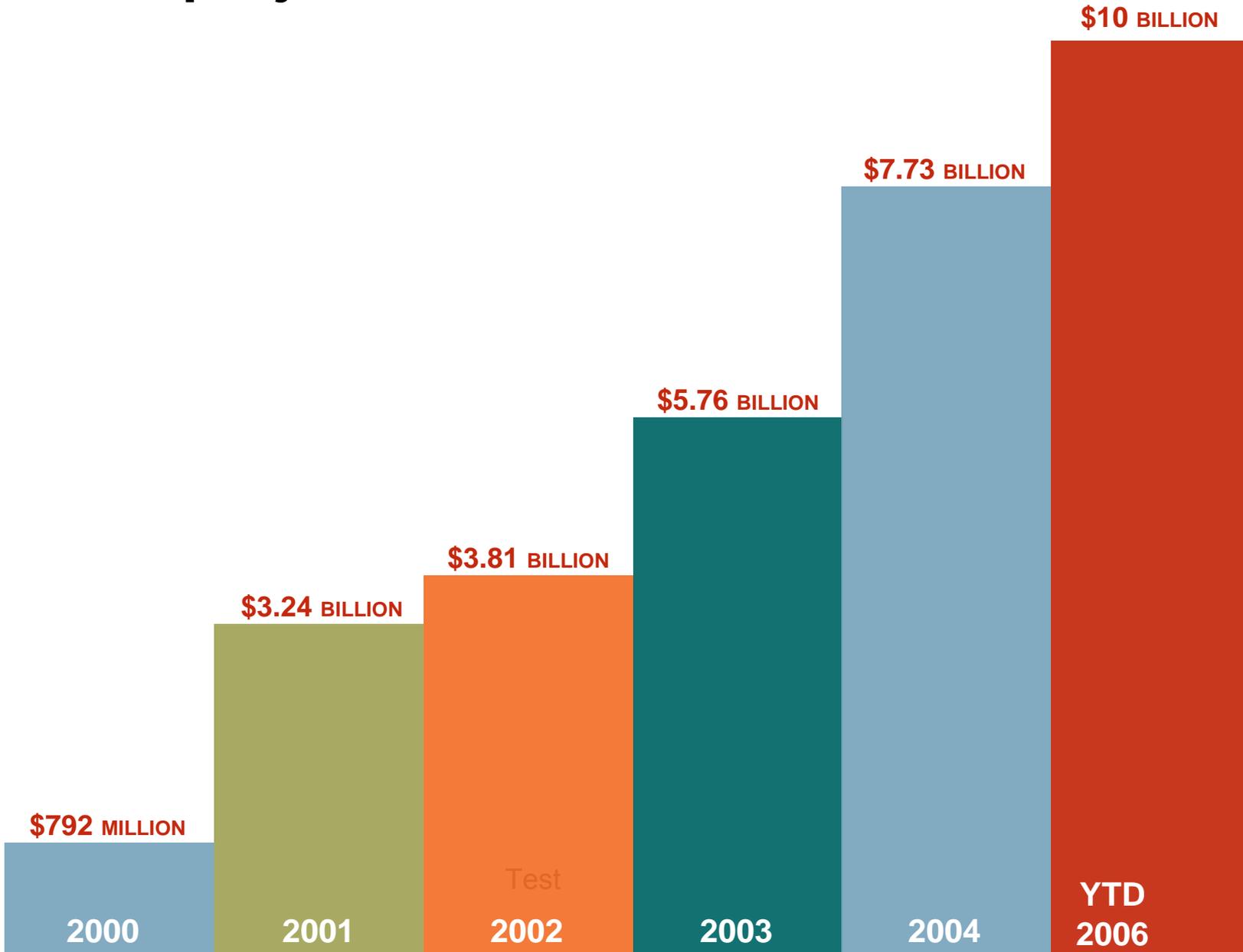


LEED Ratings

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



Value of new LEED for new construction projects



LEED ADOPTIONS



8 Countries
16 States
46 Cities
33 Schools
9 Federal Agencies



State of New Mexico

A photograph of a building facade with blue window frames and a red sign with a geometric pattern. The building has a light-colored stucco finish and a decorative cornice with colorful tiles. The sign is red with a white geometric pattern and is mounted on a blue metal frame.

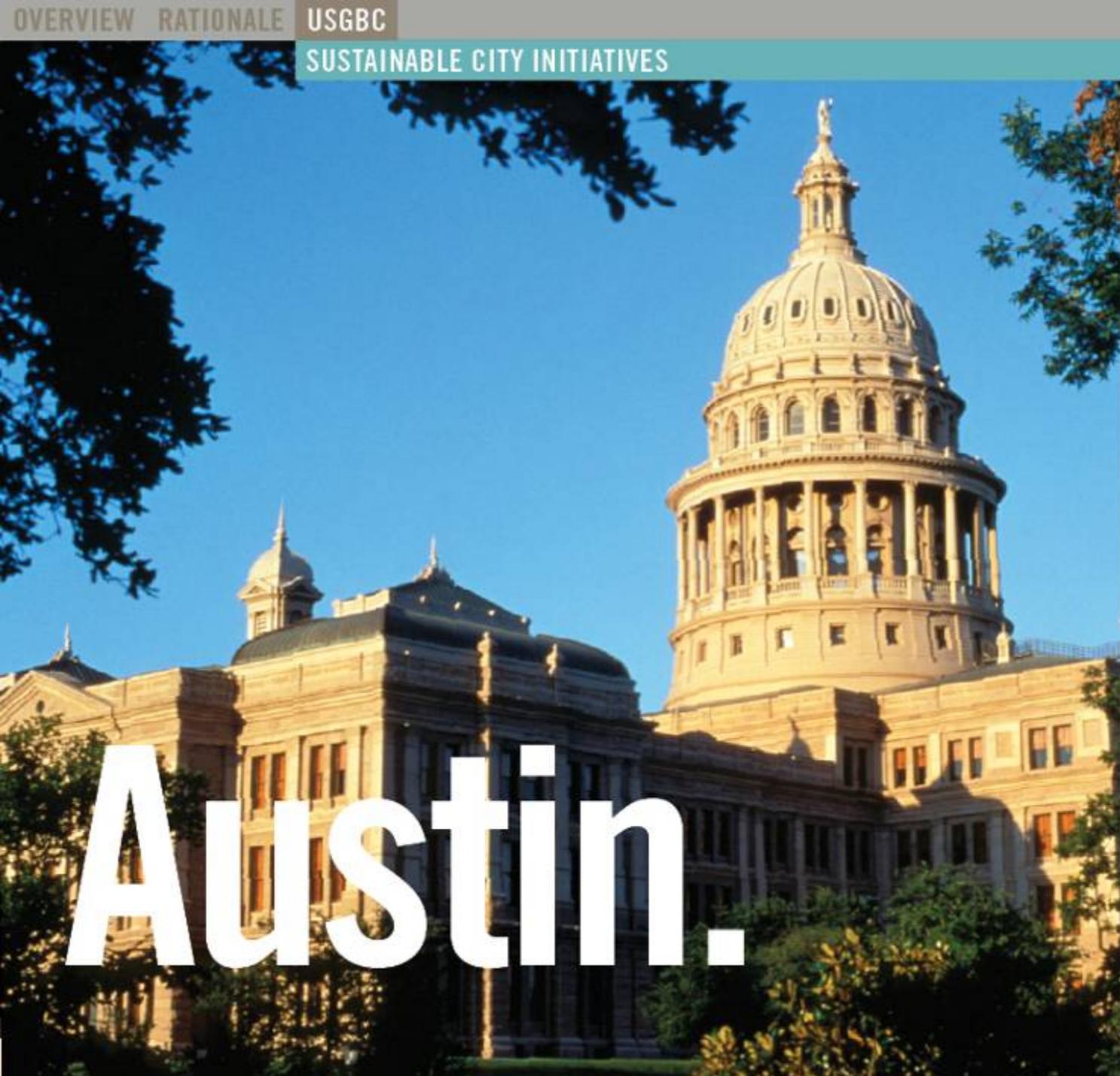
**Executive
Order 2006-001**

**New Energy
Efficient Green
Building
Standard for
State Buildings**

State Building over
15,000 sf shall be
LEED Silver rated

Empower
sustainable
economic
development

Adopt specific
standards to
implement the use
of high performance
energy efficient
green building
practices



Austin.

Austin, TX
Early adopter
of municipal
sustainability
initiatives
(1989)

Legislation
passed in 2000
requiring
LEED Silver
rating for all
municipal
buildings

Case Study Combined Transportation Emergency & Communications Center

City of Austin
owner/manager

14 acre "mission
critical" emergency
response campus
80,600 sq ft

LEED Silver

25% energy savings

100% of irrigation is reclaimed water

12% recycled content site is redeveloped brownfield



Case Study

20 River Terrace

The Solaire

Battery Park
City Authority
owner

27-story high-rise
apartment building
386,000 sq ft

LEED Gold

67%

energy savings

88%

water savings

93%

construction
waste salvaged



Case Study The Chicago Center for Green Technology

Chicago Dept.
of the Environment
owner/operator

Multi-use:
government and
commercial offices,
assembly and
educational
40,000 sq ft

LEED Silver

40% energy savings

50% of storm water is reclaimed

84% construction waste salvaged



Case Study City of Seattle Justice Center

City of Seattle
owner

Municipal courts
and police
headquarters
288,000 sq ft

LEED Silver

33% energy savings

Rainwater reclaimed for irrigation

88% construction waste salvaged



Case Study Oregon Convention Center

Oregon Convention
Center
owner

Largest convention
center in NW
1,000,000 sq ft

LEED Certified

30%
energy savings
(over Oregon code)

39%
water savings

80%
construction
waste salvaged



LEED Projects total 6,000+ in 2007

300 Florence
Professional Offices

Bienvivir SHS Addition
& Remodel

Cancer Treatment
Institute-West

Fort Bliss BCT-1 COF
Fort Bliss BCT-1 TEF
Fort Bliss BCT-1 UEPH
Fort Bliss BCT-2 COF
Fort Bliss BCT-2 TEF
Fort Bliss BCT-2 UEPH

K-5 Elementary

The Mills Building

6,000+

190+ Texas

11 in El Paso

3 in Las Cruces

LEED Registered Projects

830+

LEED Certified Projects

38 Texas



Case Study

CHIHUAHUA Ciudad Juarez

Eiffel's Centro Internacional de Negocios

Building Type ○ **Offices**
Square Feet ○ **39,080 SF**
Construction Cost ○ **\$ 5,383,000**
Price / SF ○ **\$ 137.75/ SF**

LEED ○ **Certified LEED-NC v2**

Water Use Reduction ○ **24%**

Energy Reduction ○ **22%**



Case Study

TEXAS Austin

IBM Tivoli Systems, Inc. Headquarters

Building Type ◦ **Offices**
Square Feet ◦ **200,000 SF**

LEED ◦ **NC Certified**
Austin Energy
Green Building Program ◦ **4 Stars**

Increment in Cost ◦ **3%**

Water Use Reduction ◦
Manages Storm Water Run-Off

Energy Reduction ◦ **27%**
Natural Lighting

Exterior Views For All Offices

Inside "Smart Growth" Zone
Curbs Urban Sprawl
Situated 4 Alternative Transport



"Our strategy was that the environment was an integral part of Tivoli's culture, and that this investment would more than pay for itself by improving employee satisfaction, cutting energy and water use, and generating opportunities for positive public relations,"

explains HOK Houston Design Director Roger Soto.



Case Study

NEW MEXICO Albuquerque

PNM IT Office Building

Building Type ○ **Offices**
 Square Feet ○ **48,000 SF**
 Construction Cost ○ **\$ 7 Million**
 Price / SF ○ **\$ 146 / SF**

LEED ○ **Certified Silver**

Water Use Reduction ○

48%

Energy Reduction ○
Efficient HVAC Systems
Individually Controlled Areas

Indoor Environmental Quality ○
Non-Toxic Paint,
Carpet and Adhesives

“The office building is designed to enhance the natural desert landscape through careful environmental design.” ēdi was the LEED™ Professional

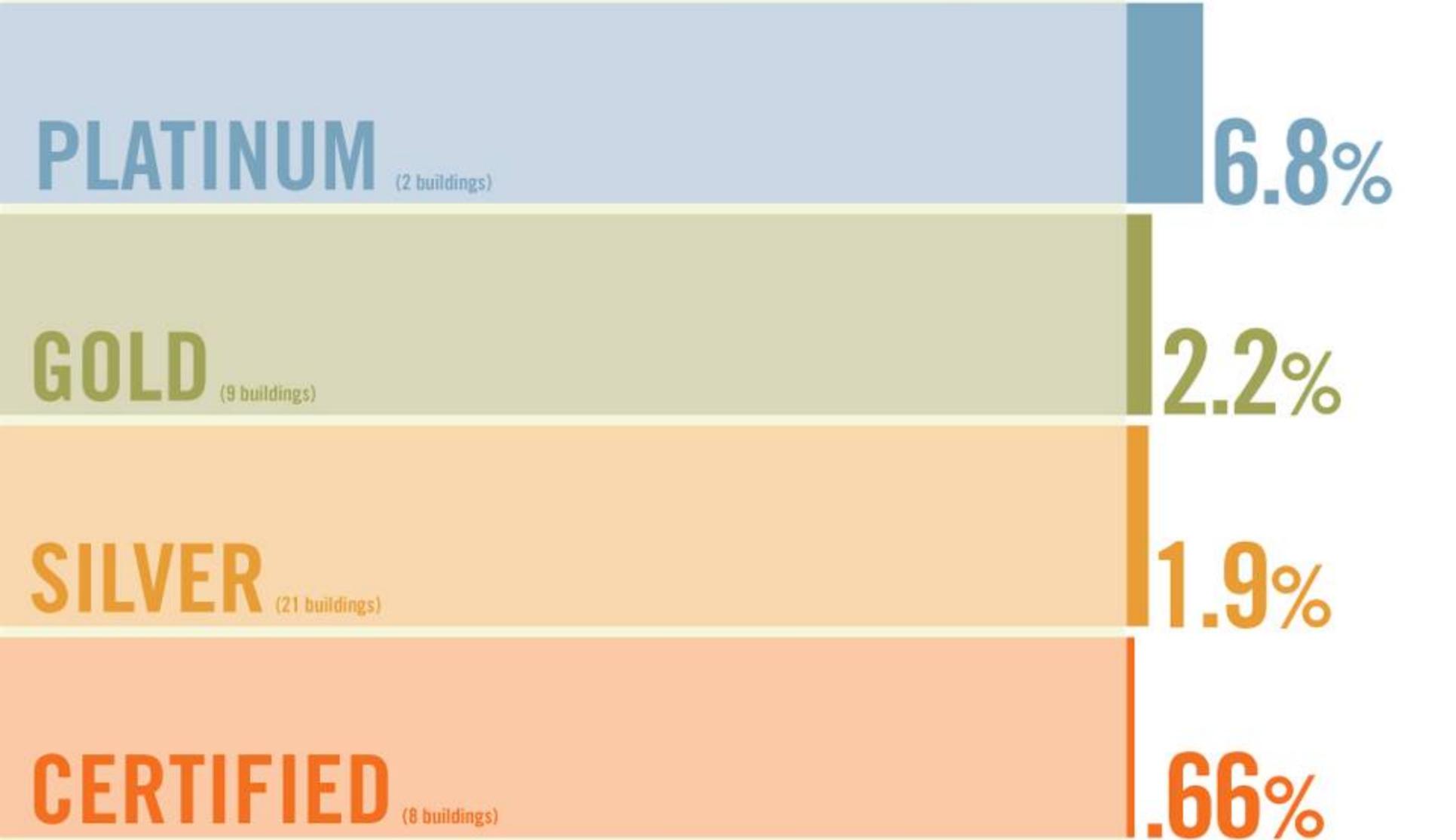
“The comfort and well-being of company employees was a priority in the design.” ēdi was the LEED™ Professional



Additional constructions costs for LEED-certified buildings

Average for offices and schools, based on 40 buildings

Conventional Building Cost (100%) Additional Cost



**Results of the
California
Study:
Average
Bottom Line
Savings**

**GREEN IMPROVEMENTS PAY FOR
THEMSELVES IN **3** YEARS**

(ANNUAL RETURN ON INVESTMENT IS 25-40%)



The William and
Flora Hewlett
Foundation
Menlo Park CA
LEED Gold

Case Study

A step towards LEED

TEXAS
El Paso

City Hall

2003 Renovation
Mechanical and Lighting

215,000 square feet
\$1.8 million

Benefits:
Better quality cooling
Better quality lighting
33% energy reduction
\$2 million savings over 20 yrs.

LEED Not Obtained



