

Bruce Wilson Contracting

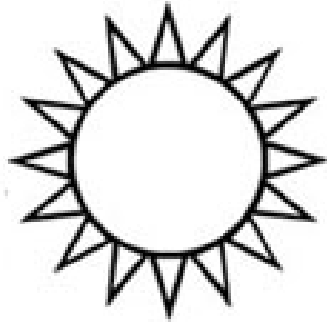
Environmentally Sustainable Contracting

LEED® tm Accredited Professional

Renovation, Restoration, New Construction

Bruce Wilson & Annie Prince, Owners

Celebrating Thirty One Years



Lehigh Valley Green Builders Forum

Lehigh Valley Green Builders Forum

The Lehigh Valley Green Builders Forum

is a Non-Profit Educational Organization

dedicated to promoting

Green Building and Renewable

Energy to the Building Industry and the

Public in the Lehigh Valley Region.

Lehigh Valley Green Builders Forum

Our mission is to promote environmentally responsible design, planning, construction, and operation of the built environment through advocacy, education, outreach, and networking.

Environmental Impact of Buildings*

- 65.2% of total U.S. electricity consumption ¹
- > 36% of total U.S. primary energy use ²
- 30% of total U.S. greenhouse gas emissions ³
- 136 million tons of construction and demolition waste in the U.S. (approx. 2.8 lbs/person/day) ⁴
- 12% of potable water in the U.S. ⁵
- 40% (3 billion tons annually) of raw materials use globally ⁶

* Commercial and residential (USGBC 2005)

The California study asked,

What is a Green Building?

“Green” or “sustainable” buildings are sensitive to:

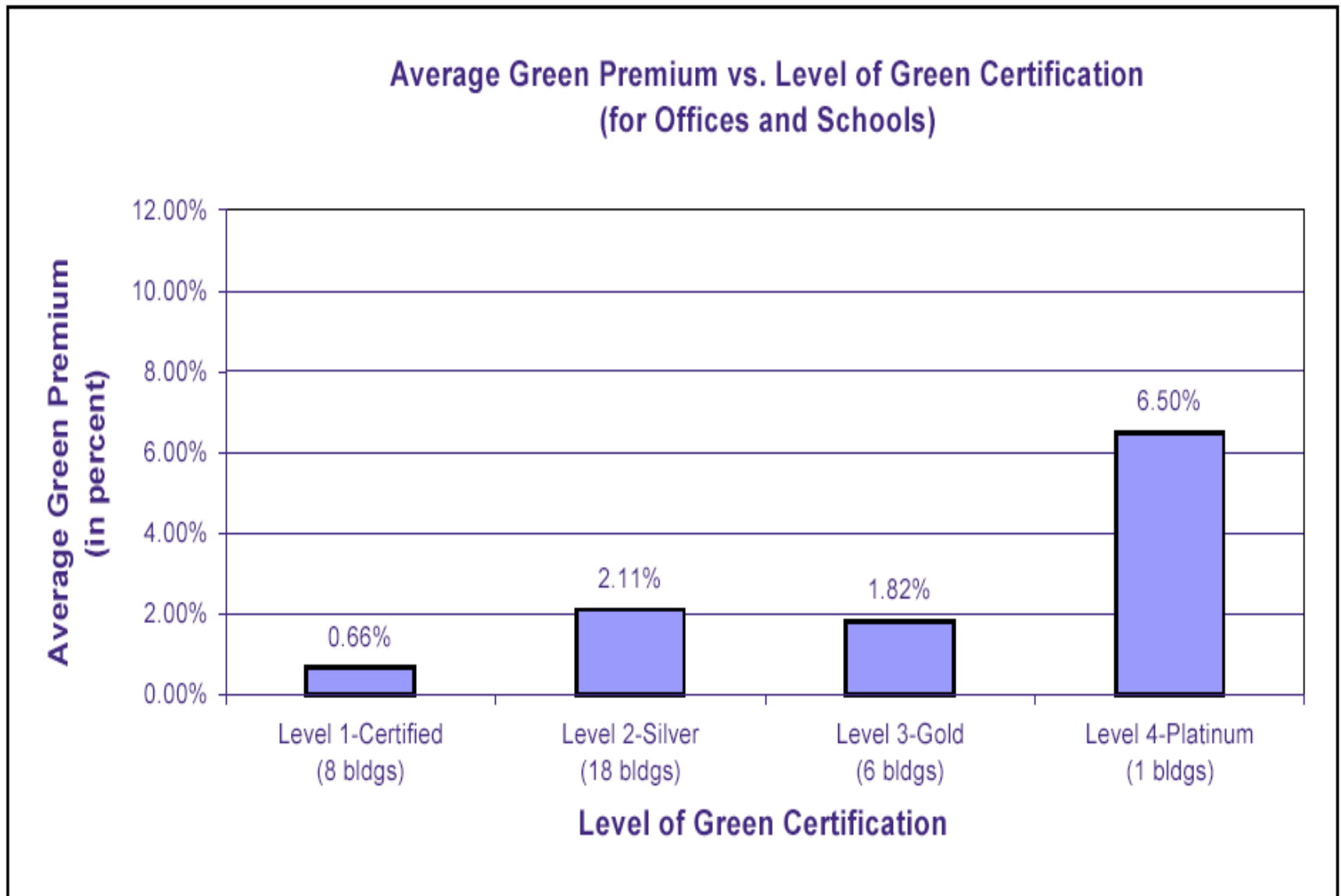
- Environment.
- Resource & energy consumption.
- Impact on people (quality and healthiness of work environment).
- Financial impact (cost-effectiveness from a full financial cost-return perspective).
- The world at large (a broader set of issues, such as ground water recharge and global warming, that a government is typically concerned about).

**Figure ES-1. Financial Benefits of Green Buildings
Summary of Findings (per ft²)**

Category	20-year NPV
Energy Value	\$5.79
Emissions Value	\$1.18
Water Value	\$0.51
Waste Value (construction only) - 1 year	\$0.03
Commissioning O&M Value	\$8.47
Productivity and Health Value (Certified and Silver)	\$36.89
Productivity and Health Value (Gold and Platinum)	\$55.33
Less Green Cost Premium	(\$4.00)
Total 20-year NPV (Certified and Silver)	\$48.87
Total 20-year NPV (Gold and Platinum)	\$67.31

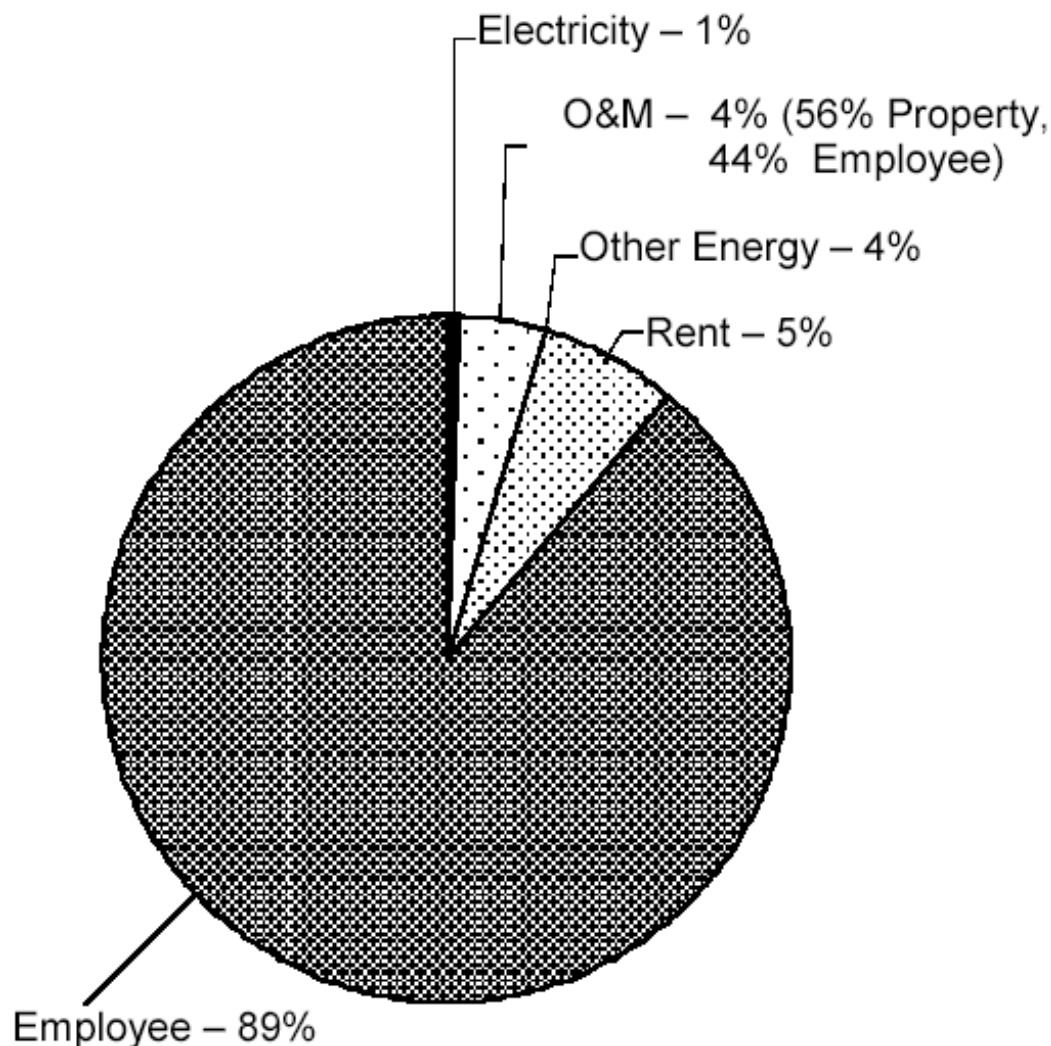
Source: Capital E Analysis

Figure III-2. Average Green Cost Premium vs. Level of Green Certification

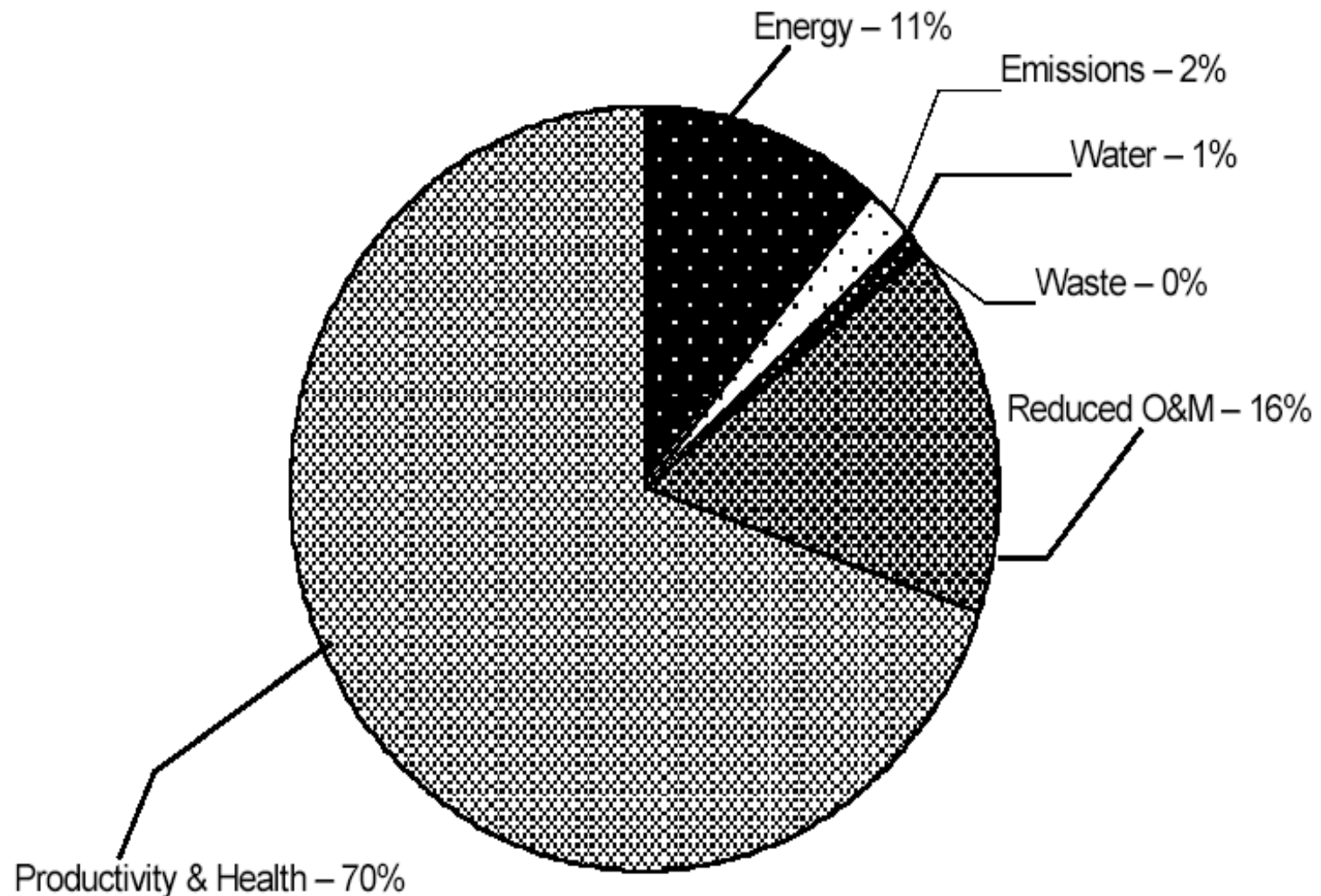


Source: USGBC, Capital E Analysis

Figure VIII-1. Costs in California State Employee-Occupied Office Buildings
(December 2001 - September 2002 with projections for November-December 2002)



**Figure XI-2. Percentage Breakdown of Green Building Financial Benefits
(LEED Certified and Silver Buildings)**



Source: Capital E Analysis

U.S. Department of Energy

- **Energy Efficiency and Renewable Energy
Building Technologies Program
Integrated Building Design for Energy
Efficiency**

About Integrated Building Design

- Integrated building design is a process of design in which multiple disciplines and seemingly unrelated aspects of design are integrated in a manner that permits synergistic benefits to be realized.

The Plaza at PPL Center



- synergy (*n.*)
- The interaction of two or more agents or forces so that their combined effect is greater than the sum of their individual effects.

Clearview Elementary School

Hanover, PA LEED Gold



Green roof on the Hamilton Terrace Apartment complex. Portland, Oregon

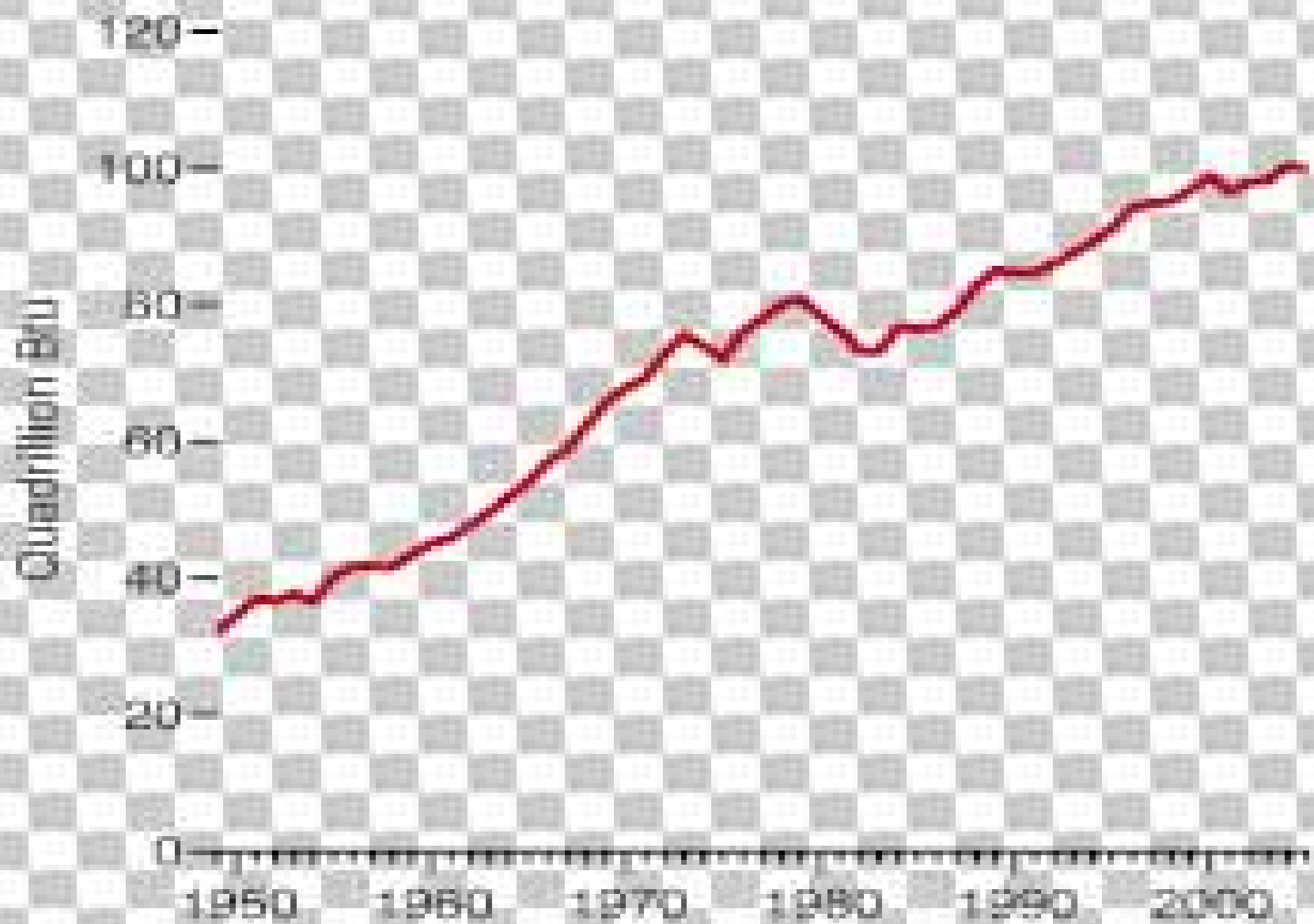


Green roof on a Pennsylvania Chiropractic Center

By Roofscapes, Inc.



Energy Consumption, 1949-2005



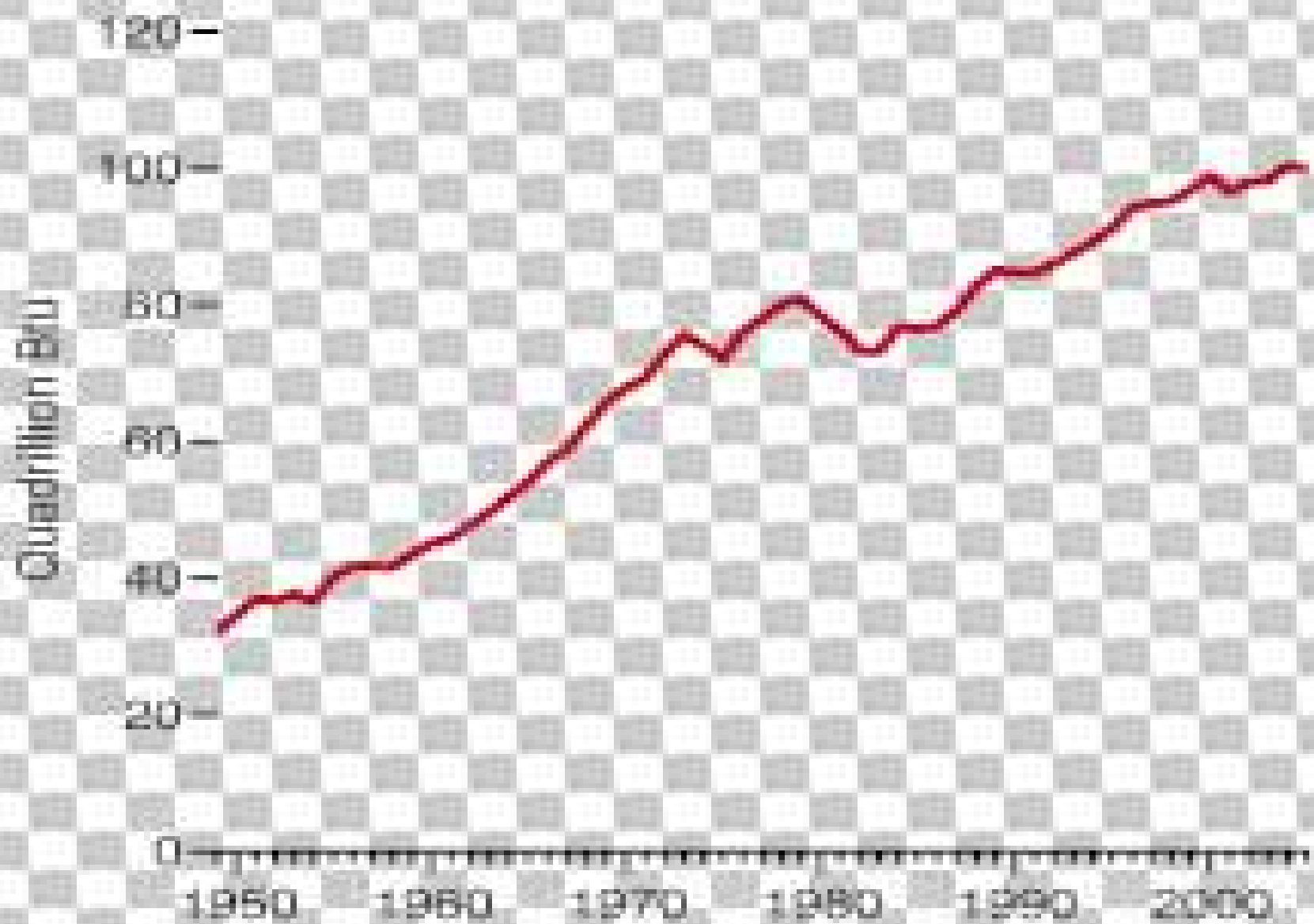
Gross Domestic Product U.S.
Department of Commerce:
Bureau of Economic Analysis

A 94% increase in GDP
1982 – 1992

Real Gross Domestic Product
U.S. Department of
Commerce: Bureau of
Economic Analysis

A 39% increase in Real GDP
1982– 1992

Energy Consumption, 1949-2005

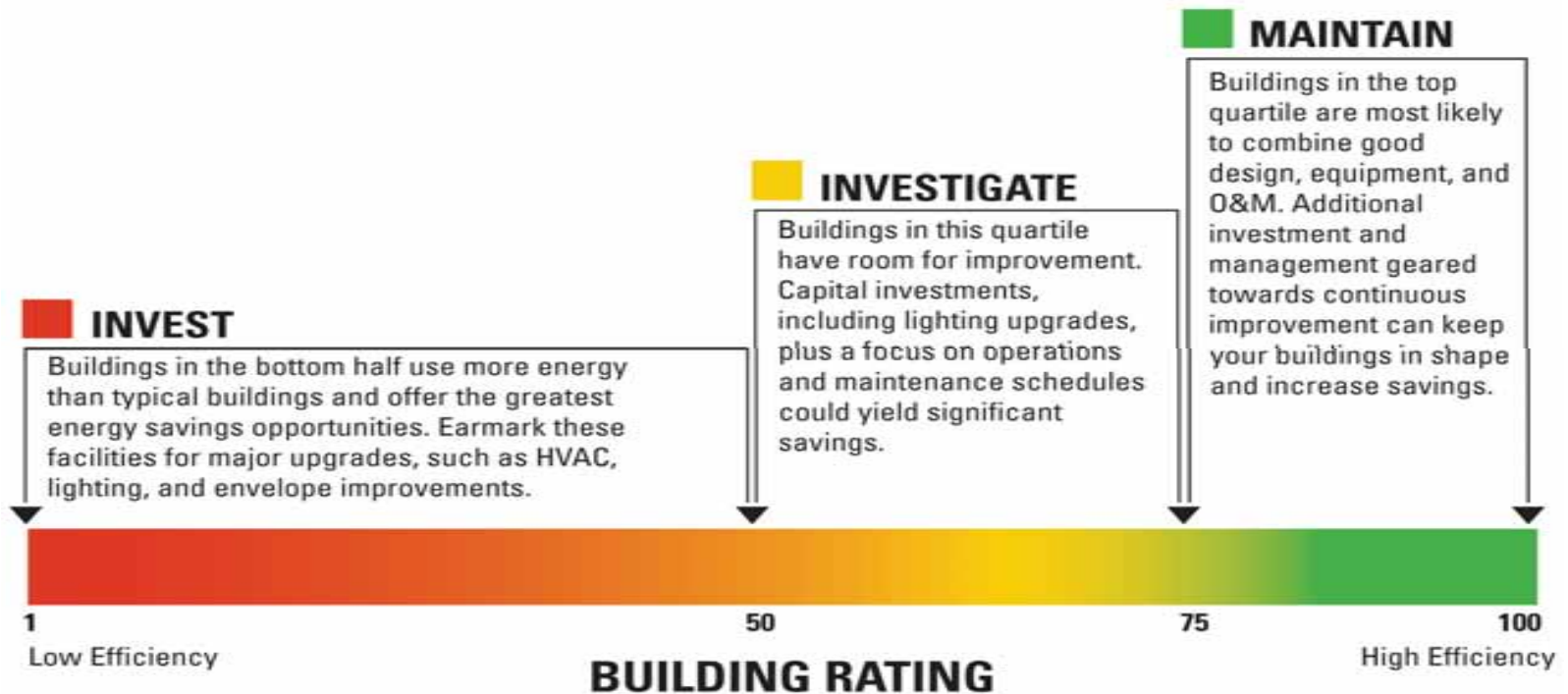




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Knoll International Lubin Manufacturing Facility

East Greenville, PA, Earns LEED® Gold Certification 10/8/04



KASYCH PAVILION Lehigh Valley Hospital Cedar Crest Campus LEED Gold



20 River Terrace – The Solaire in Battery Park City LEED Gold



Clearview Elementary School

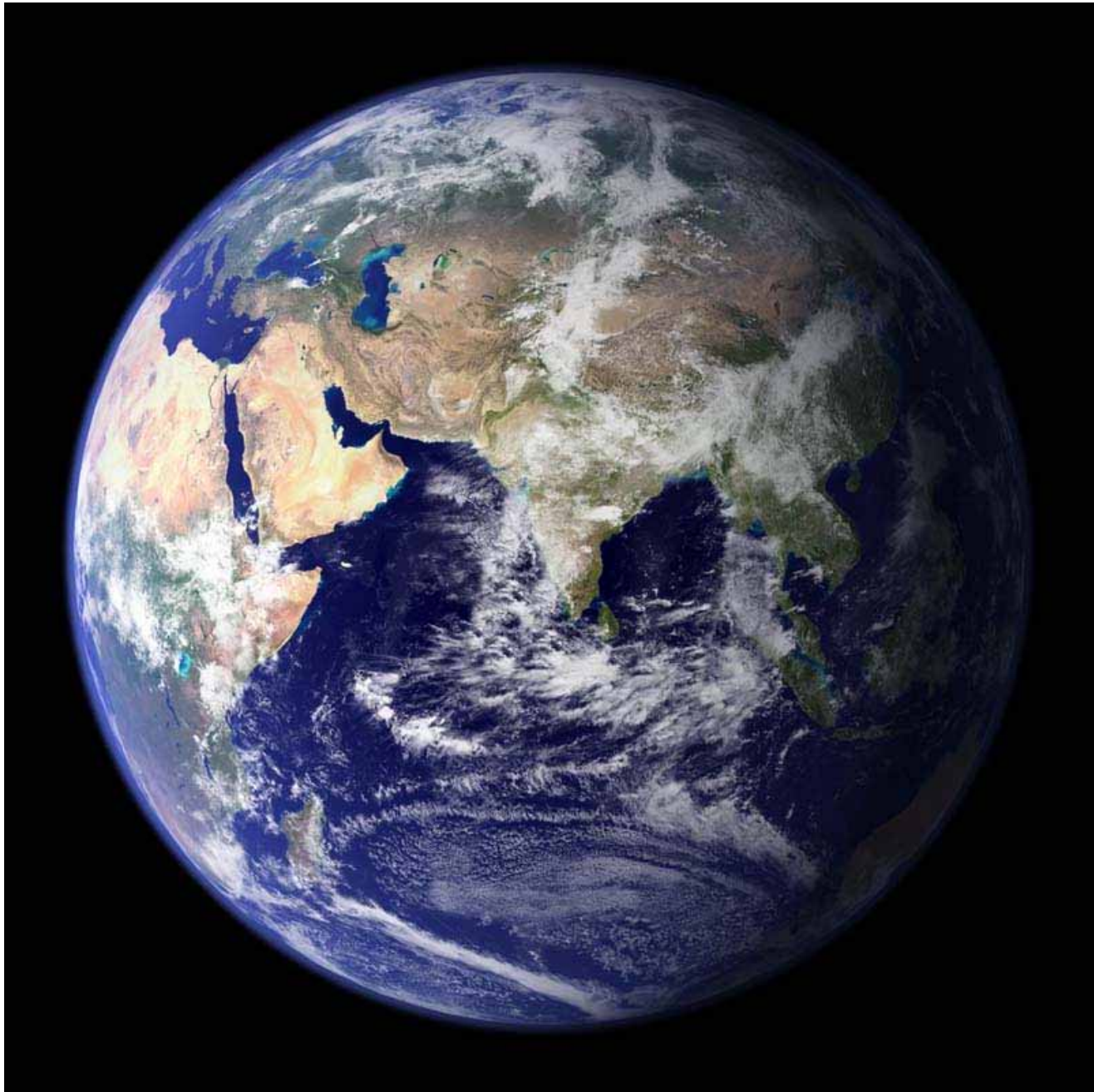
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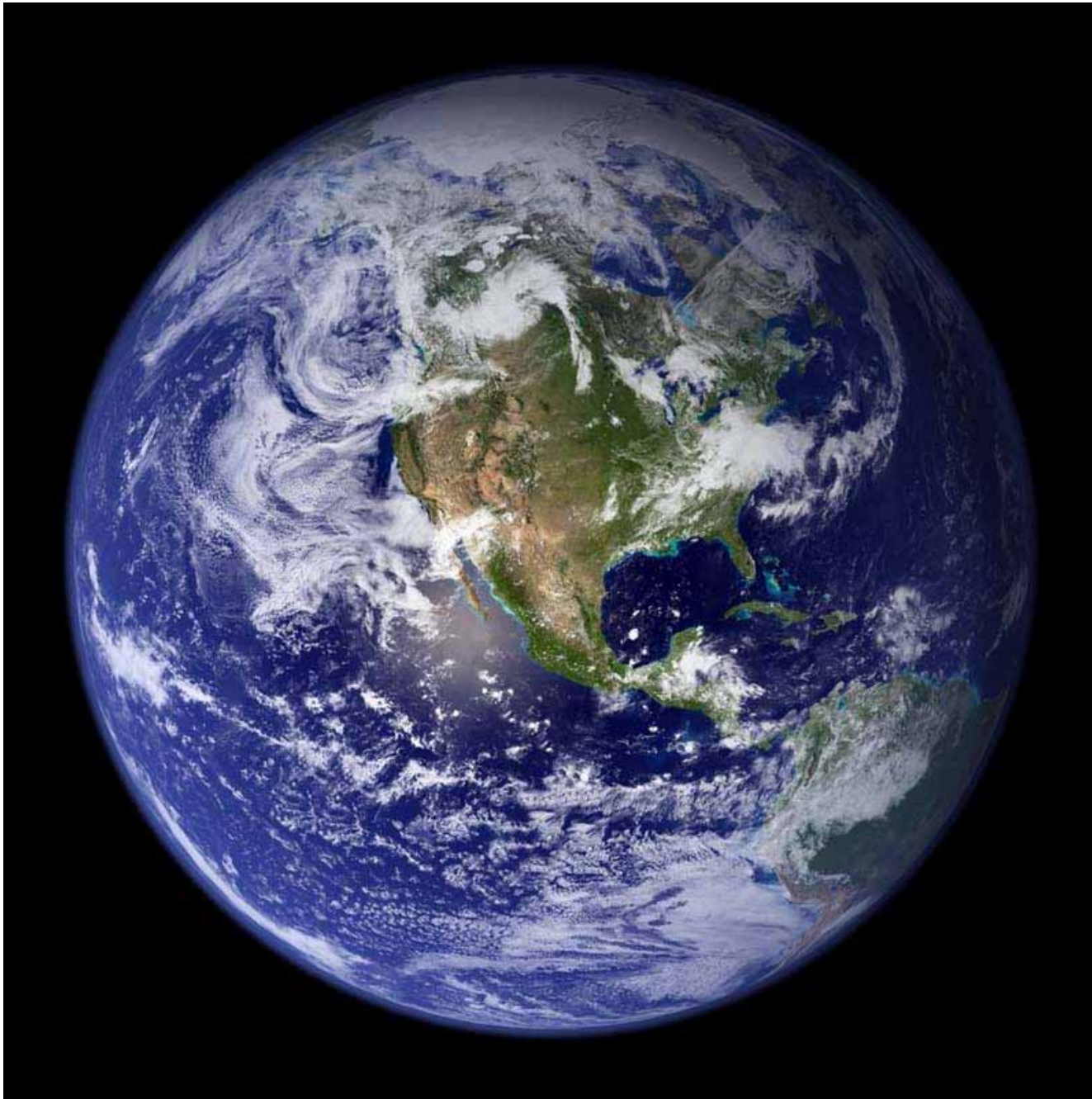
Clearview Elementary School Hanover, PA LEED Gold



Spacecraft/Mission: Satellites Release Date: 2005-11-11 source: NASA/MODIS/USGS
<http://solarviews.com/browse/earth/bluemarbleeast.jpg>



Spacecraft/Mission: Satellites Release Date: 2005-11-11 Source: NASA/MODIS/USGS
<http://solarviews.com/cap/earth/bluemarblewest.htm>



DOE Integrated design site;

<http://www.eere.energy.gov/buildings/info/design/integratedbuilding/>

The Association of University Leaders for a Sustainable Future (ULSF) <http://www.ulsf.org/>

United States Green Building Council ; www.usgbc.org

Delaware Valley Green Building Council; www.dvgbc.org

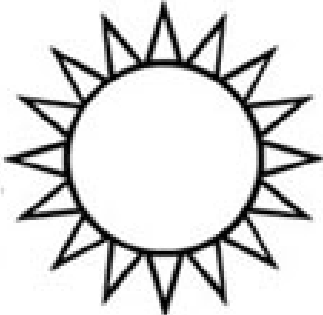
Green Building Association of central PA; www.gbacpa.org

EPA Green Communities; <http://www.epa.gov/greenkit/index.htm>

Capital E knowledge is power;

<http://www.cap-e.com/publications/default.cfm>

www.lvgreenbuilder.org



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