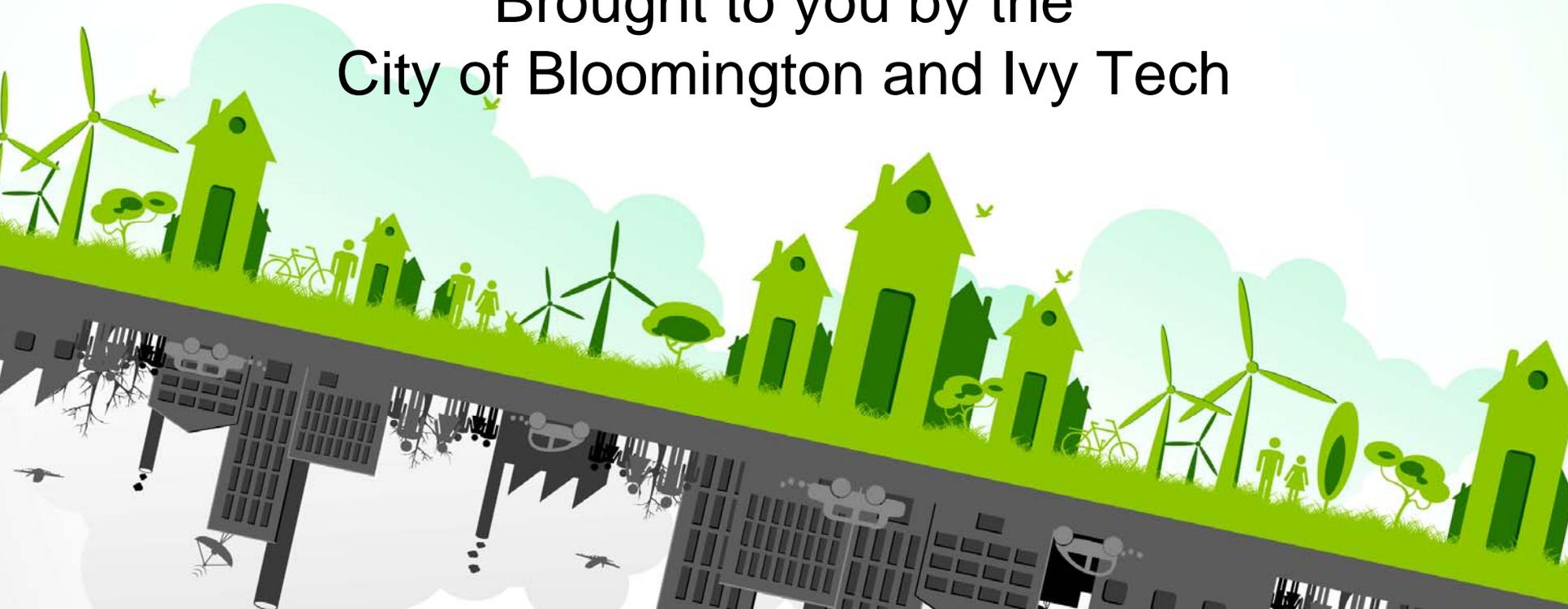


Welcome to the Efficient Facilities Roundtable!

June 5, 2013

Brought to you by the
City of Bloomington and Ivy Tech





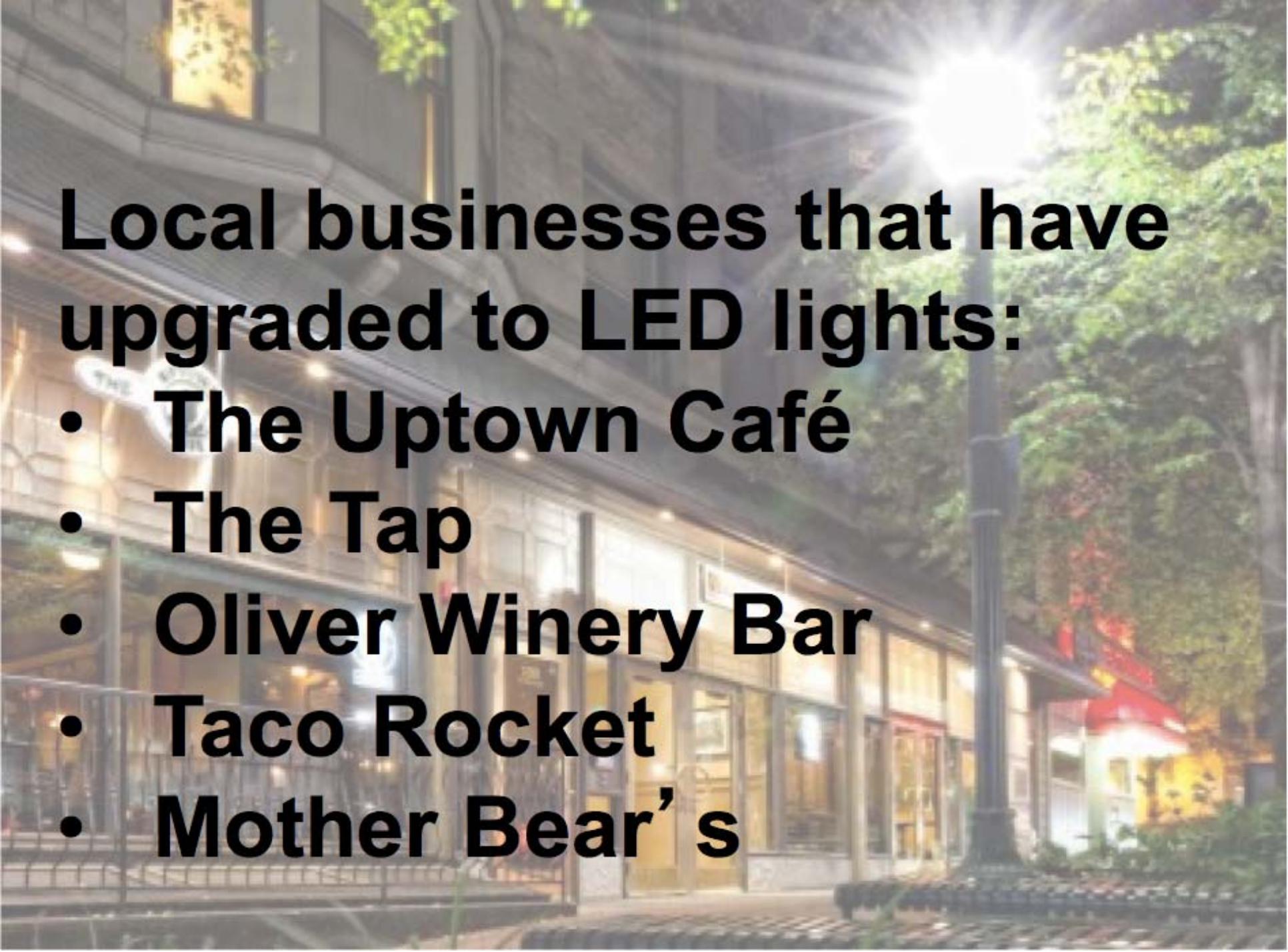
City of Bloomington
upgraded lights
in Garage Art and
reduced energy
consumption 47%

\$\$ saved: \$11,000/year
Kwh saved: 140,000/year

Many lighting upgrades have a
payback of 4-5 years.

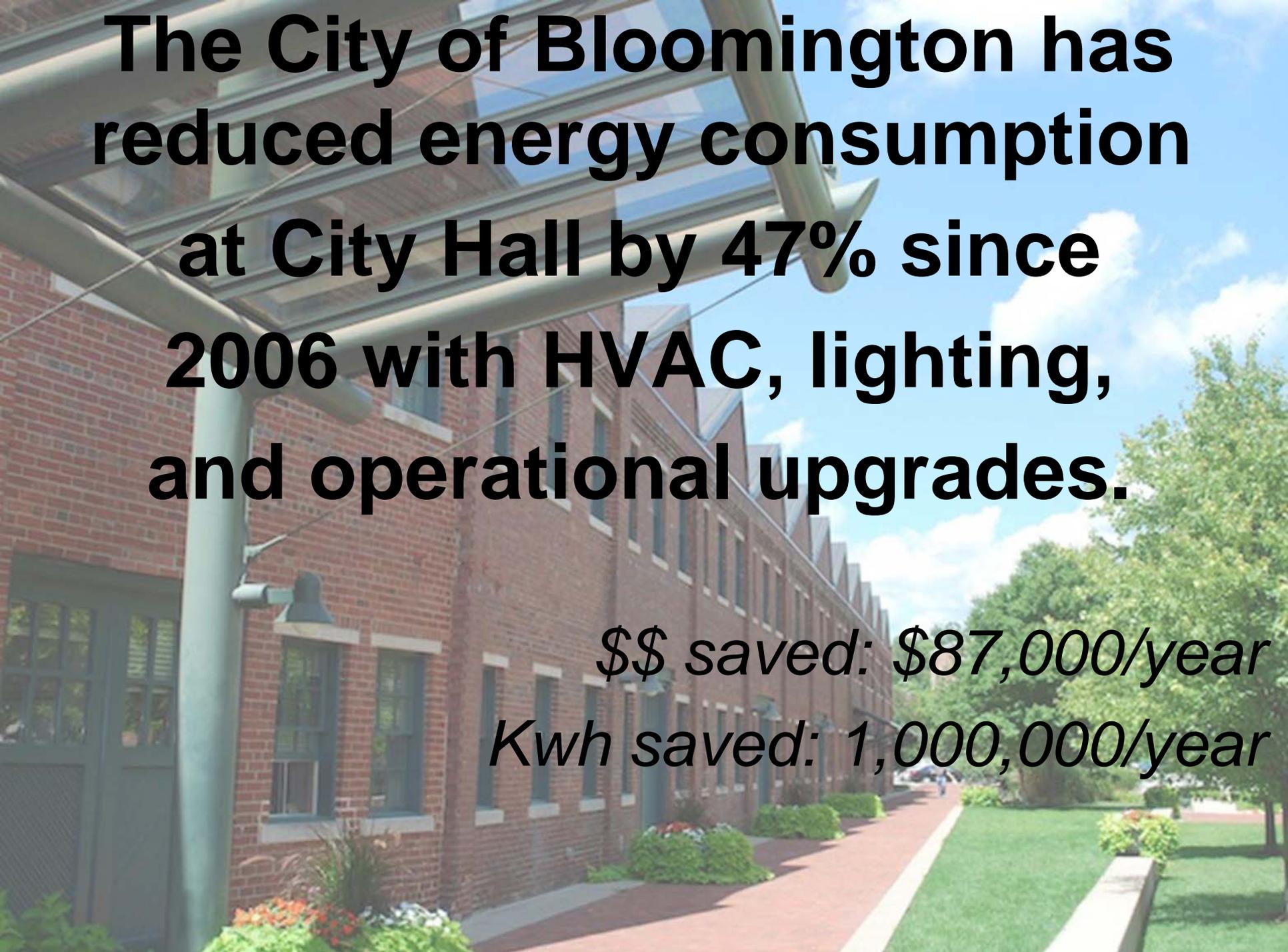
That's the equivalent of a 20-25%
return on investment.



A street scene at night. On the left, a building with large windows and a sign that says "THE" is visible. A street lamp on the right is glowing brightly, casting a lens flare. Trees with green and some autumn-colored leaves are on the right side. The overall scene is dimly lit, with the primary light source being the street lamp and the building's interior lights.

Local businesses that have upgraded to LED lights:

- **The Uptown Café**
- **The Tap**
- **Oliver Winery Bar**
- **Taco Rocket**
- **Mother Bear's**



The City of Bloomington has reduced energy consumption at City Hall by 47% since 2006 with HVAC, lighting, and operational upgrades.

\$\$ saved: \$87,000/year

Kwh saved: 1,000,000/year

Incentives for upgrades and maintenance are available through:

- Duke
- Vectren
- Energizing Indiana

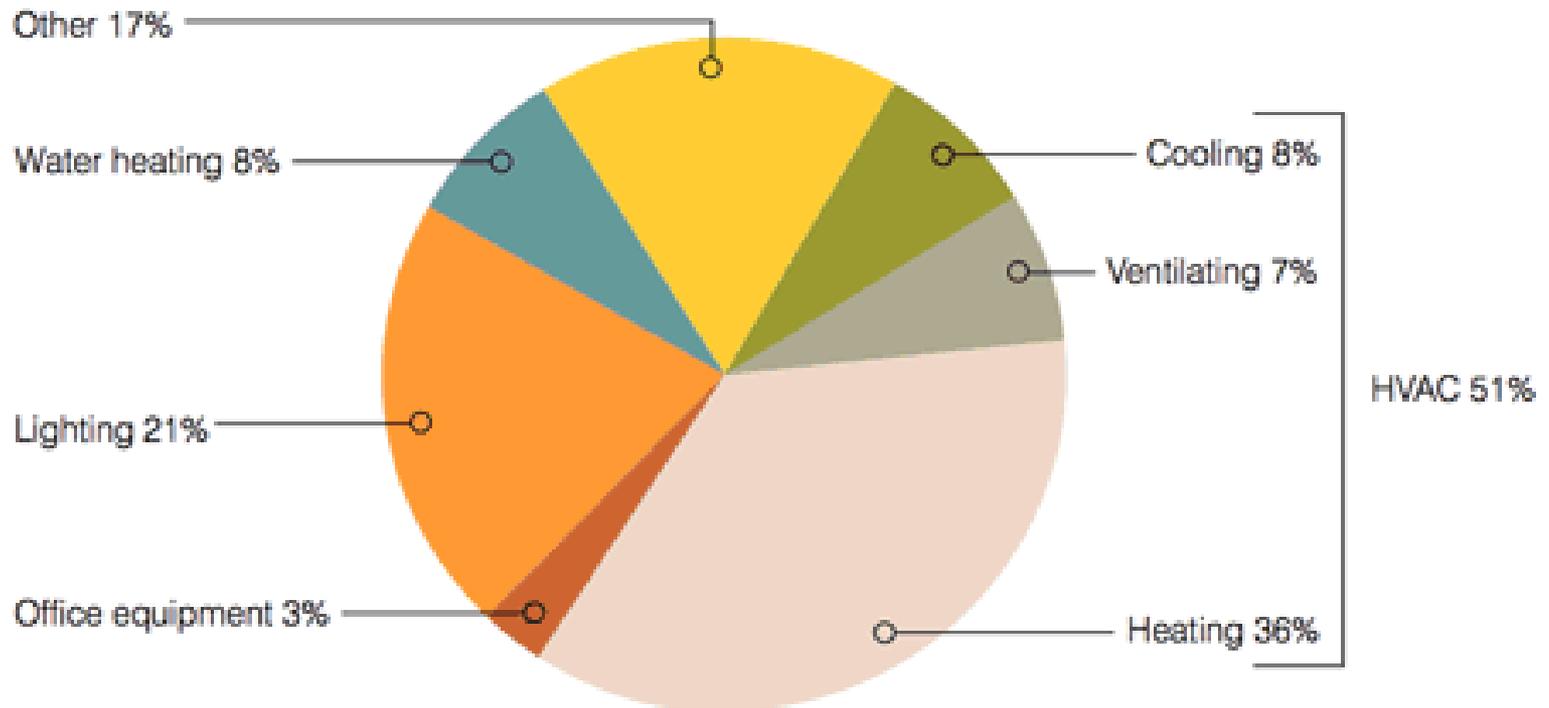
Types of upgrades: bulbs, boilers, food prep equipment, insulation, pumps & motors, HVAC equipment, guest room controls, and more

A glowing compact fluorescent light bulb (CFL) is the central focus of the image. The bulb is illuminated, casting a warm, yellowish glow. The background is a soft, out-of-focus greenish-yellow gradient. The text is overlaid on the left side of the image.

**Commercial, government,
and industrial facilities in
Bloomington use:**

- **64% of electricity**
- **55% of natural gas**

Estimated energy consumption of U.S. commercial buildings



Data source: Energy Information Administration, "Commercial Buildings Energy Consumption Survey (CBECS): Table E1A. Major Fuel Consumption (BTU) by End Use for All Buildings" September 2008. Accessible at http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/detailed_tables_2003.html.

Buildings in the U.S. account for:

72% of electricity
55% of natural gas
39% of CO₂ emissions
30% of waste output
40% primary energy use

Potential reductions when building systems work together to maximize efficiency?

Energy: 24 - 50%
CO₂ emissions: 33 - 39%
Water use: 40%
Solid waste: 70%

In Indiana, 83% of electricity was generated from coal in 2011, compared to 42% in the U.S. overall.





The largest geothermal heating and cooling system in the U.S. is at Ball State University.