



Lighting the Way to Savings

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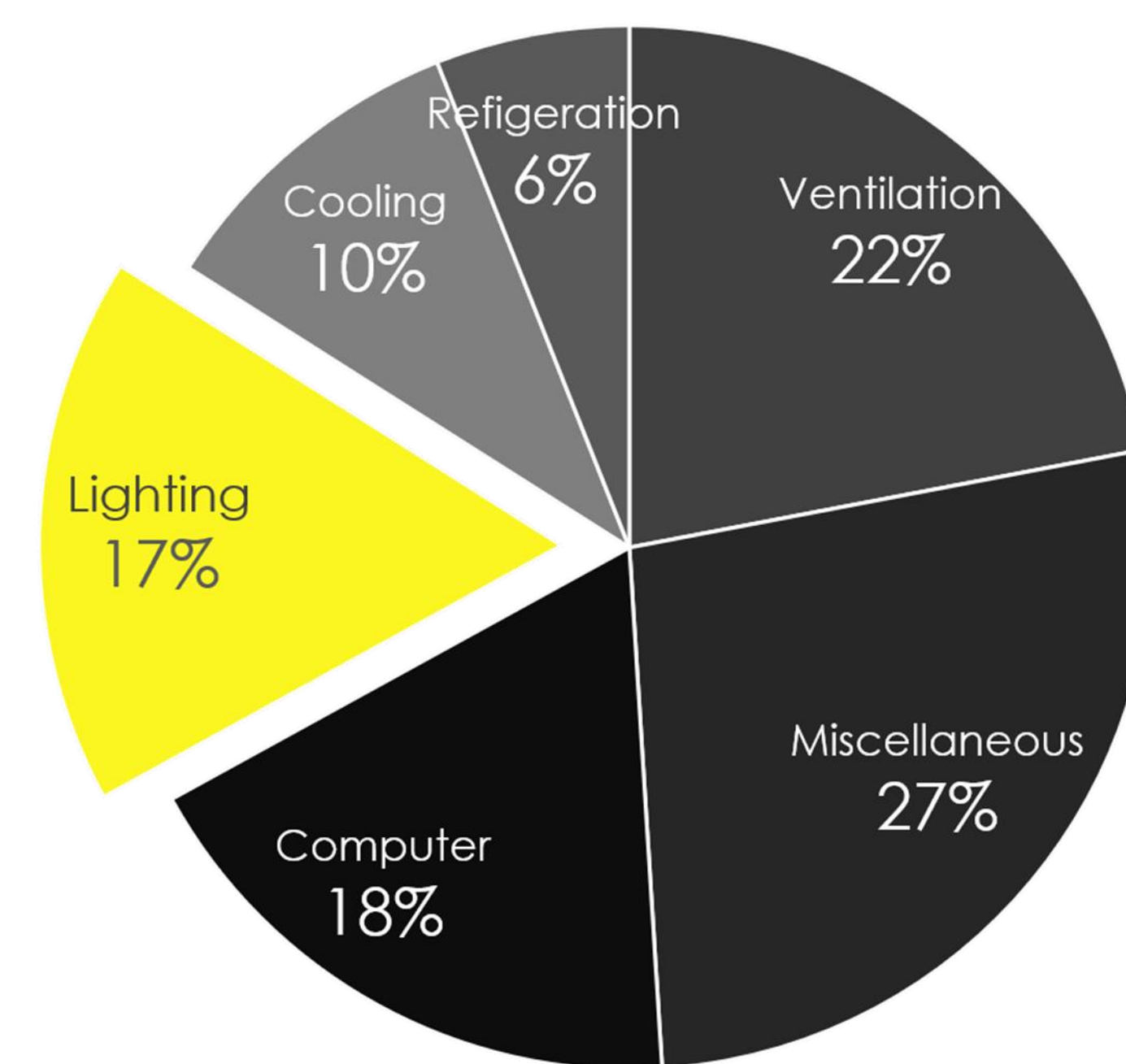


The Problem:

Each year, Rutgers spends roughly **\$1.2 million** on electricity for traditional style dormitories, and, according to the US Energy Information Administration, **17%** of that cost (or about \$204,000 per year) goes toward lighting. A large portion of this cost is due to a requirement in New Jersey's building code, which stipulates that "means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied," (Chapter 10, Section 1006). This means that the lights in dorm hallways and stairwells at Rutgers are required to be **turned on at all times**. With the majority of dorms lit by inefficient fluorescent light fixtures, dorm lighting uses large amounts of energy and costs a substantial amount of money each year.

Electricity end uses on college campuses

- Business Energy Advisor



The Solution:

The solution we propose for Rutgers' lighting problems is twofold:

1. Swap LEDs for the fluorescents currently in place.
2. Put dimmers on these lights, controlled by motion sensors.



Why LEDs?



Benefits:

Total Savings of **\$20,254.30** over an LED's lifespan (~6 years).
Cut carbon emissions by **2/3**.

Implementation:



	Fluorescent	LED
Electricity cost per year	\$5,253.20	\$1,723.71
CO₂ emissions per year	6,167.04 kg	2,023.56 kg
Social cost of carbon per year	\$259.02	\$84.99
Total cost over LED lifespan	\$32,857.15	\$12,602.85