

Estimated Average Costs and Benefits - LED Upgrades for Health Care Facilities

Offering installation & service nationwide



Facility Type	Project Cost/Sq.Ft.1	Utility Co Rebate/Sq.Ft.2	Annual Savings /Sq.Ft.3	Simple Payback (yrs)	Annual Carbon Emission Reduction (MTCO2e)/Sq.Ft.4
Hospitals (Acute Care)	\$2.00	\$0.16	\$0.66	2.8	0.012
Clinics and Medical Office Buildings (Non-Acute Care)	\$2.25	\$0.12	\$0.54	3.9	0.009

FOOTNOTES

1 The typical LED upgrade project for healthcare facilities involves installing LED retrofit kits for troffers and downlights, type B LED T8 and T5 tubes, and screw-in and plug-in replacements for CFL lamps. Exterior lighting and emergency lighting are typically replaced with new LED fixtures. Additional controls such as occupancy sensors, dimmers, and photocells are added where needed, often wirelessly. The work is designed to be completed without shutting down areas or affecting operations. All interior work should be done below the ceiling plane within existing fixtures to maintain pre-existing circuitry seismic anchoring and to observe infection control procedures. Material costs are consistent across the United States, but labor costs can vary greatly. All work should be done in compliance with state and local regulatory agencies.

2 While utility company rebates for the installation of energy-efficient lighting were once more prevalent across the United States, a number of utilities still offer rebates in the form of a cash payment upon completion of the project. The availability of each project should be determined.

3 Annual savings consist of energy saving and lamp replacement savings. Energy savings can vary greatly based on the utility rate. Utility rates for healthcare facilities in the United States can range from \$.08/kWh to \$.30/kWh. The facility's hours of operation will greatly affect both the energy savings and the lamp replacement savings. Hospitals usually have longer hours of operation than medical office buildings, so the payback will be faster for hospitals. LED lamps have a much longer lifespan than incandescent, fluorescent, and HID lamps. Dimming LED lamps can extend the lifespan even more. Unlike fluorescent and HID lamps, LED lamps typically do not burn out; they simply fade over time. LED retrofit kits are lumen adjustable, so starting with the lowest lumen setting can extend the useful life well beyond the rated life by gradually increasing the lumen setting as needed.

4 The Annual CO2 avoided is expressed in metric tons per square foot. The reduction in energy consumption results in a reduction of CO2 produced by power plants. However, the power source, whether coal, gas, wind, or solar, affects the amount of CO2 avoided. Environmental agencies and organizations have expended much effort to quantify these variations in formulas and tables, which should be applied to each project individually.

DISCLAIMER

Over the last 30+ years, Earth Savers has performed surveys, proposals, and installations in numerous states for healthcare facilities, and based upon that information, Earth Savers can provide an accurate estimate of expected results. However, the values contained in this analysis are averages and can vary greatly from project to project. Therefore, they are rough estimates. There are no warranties or representations made in this document. It is offered as a guide. To obtain a more accurate and targeted estimate, contact an Earth Savers representative to discuss your specific application further.