

ENERGY EFFICIENCY FOR YOUR BUSINESS



Commercial Lighting – New & Retrofit

Lighting accounts for more than 40% of commercial sector electricity consumption in the United States. Designing and implementing an efficient lighting system in your business will help you achieve tremendous savings. Get started now and improve your bottom line – today!

East Central Energy can give you the advice you need to get started. The result will be recommendations for cost-effective solutions that will save you money and improve your lighting system.

Value for your business

- Lighting system paybacks often range from one to four years. Some projects can achieve payback in under one year, depending on circumstances, with return on investment (ROI) up to 75%*
- Improve safety and reduce energy usage
- Increase system control with energy-saving occupancy sensors
- Improve employee productivity and sales by enhancing lighting quality in work stations and retail areas
- Reduce cooling loads. Less waste heat is given off by new technology lamps and ballasts

Who can participate?

- This program is available to all commercial, industrial, and agricultural members of East Central Energy.

What you'll receive

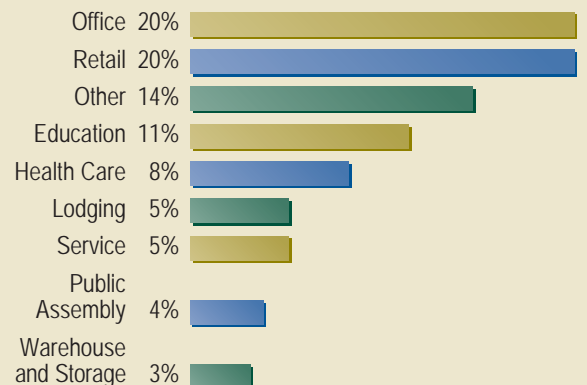
Rebates ranging from \$2 - \$80 per lamp/fixture are available to qualifying members who purchase and install energy-efficient lighting products in existing buildings.

* Payback and ROI vary by project
 ** Sources: American Council for Energy-Efficient Economy, Department of Energy 2002

What you need to do

- Check with East Central Energy to verify funding availability and program parameters
- Installation must be complete before funds will be issued
- Itemized invoices from equipment vendors must accompany rebate application
- Invoices must itemize labor charges, quantity and price of the equipment installed
- Invoices must include manufacturer and model numbers for the installed equipment
- East Central Energy reserves the right to conduct inspections
- The maximum rebate amount is the lesser of 50% of the project cost, or \$100,000 annually per member

Lighting Energy Use by Building Type



- Offices, retail and warehouses are the largest contributors to commercial lighting energy use.**

GOOD INVESTMENTS ARE HARD TO FIND – FOCUS ON LIGHTING AND IMPROVE YOUR BOTTOM LINE



School gymnasiums can benefit from energy-efficient lighting by installing high-bay fluorescent fixtures. These fixtures work great for any indoor spaces with high ceilings, such as factories, warehouses and large retail stores.

Contact us

For any questions, please contact your strategic accounts representative at East Central Energy for more information and assistance in getting these rebates and incentives, 1-800-254-7944 or www.eastcentralenergy.com.

Fluorescent and high-intensity discharge lamps contain small amounts of mercury. Mercury is harmful to the environment, and placing the lamps in the garbage is illegal. To learn how to lawfully dispose of the lamps, visit www.earth911.org or call the MN Pollution Control Agency at 651-296-6300.

Success with efficient lighting

Let's compare the operating cost of different types of inefficient lighting systems to more energy-efficient systems.

A. Compare T12 vs. T8 Fixtures

Existing Fixtures

F40T12, 4', (4) 34 watt lamps, magnetic ballast. Total fixture wattage is 156 watts.

New Fixtures

F32T8, 4', (4) 32 watt lamps with electronic ballast. Total fixture wattage is 110 watts.

- Assume that the lights operate 10 hours per day, 5 days per week and that the cost of electricity is \$.085/kWh.

Electricity cost = (wattage / 1,000) x hours of operation x \$kWh

F40T12 4' 34W, 4 lamp .156 kW x 2,600 hours x \$.085/kWh = \$34.48

F32T8 4' 32W, 4 lamp .110 kW x 2,600 hours x \$.085/kWh = \$24.31

The savings from changing to a more efficient fixture is \$10.17 annually, and the T8 fluorescent fixture provides more light output. An office with 10 light fixtures will save \$101.70. East Central Energy offers a retrofit lighting rebate of \$20 per fixture to change out your old T12s to the energy-efficient T8 fixtures.

B. Compare High Intensity Discharge Metal Halide vs. High-Bay T8 Fixtures

Existing Fixtures

400 watt metal halide with magnetic ballast. Total fixture wattage is 460 watts.

New Fixtures

High-bay fluorescents with electronic ballast F32T8, 4', (6) 32 watt lamps with electronic ballast. Total fixture wattage is 217 watts.

- Assume that the lights operate 8 hours per day, 5 days per week and that the cost of electricity is \$.085/kWh.

Electricity cost = (wattage / 1,000) x hours of operation x \$kWh

400 watt metal halide .460 kW x 2,600 hours x \$.085/kWh = \$101.66

F32T8 4' 32W, 6 lamp .217 kW x 2,600 hours x \$.085/kWh = \$47.96

The savings from changing to a more efficient fixture is \$53.70 annually, and the T8 fluorescent fixture provides more light output and emits less heat, which can decrease air conditioning costs. East Central Energy offers a retrofit lighting rebate of \$80 per fixture to change out a metal halide greater than 400 watts to the energy-efficient high-bay fixtures.