



PACE
PARTNERS FOR A
CLEAN ENVIRONMENT

Energy Efficiency *LED Exit Signs*

Spring 2009

What is PACE?

PACE provides education outreach, technical assistance, and recognition for environmental achievement. The program is available at no cost to businesses in Boulder County. PACE offers:

- Assessments to identify opportunities for waste reduction, water conservation, and energy-efficiency
- Information and assistance to meet your business needs
- Compliance education
- Public recognition for your environmental efforts

Why Participate?

Compliance – Our free, non-regulatory consultations help you comply with environmental laws and ordinances and reduce your liability.

Cost Savings - Less waste means lower disposal and operating costs. Efficient use of water, energy, and materials saves money.

Public Image - Environmental practices impact your image with customers, the community, and regulatory agencies.

Public Recognition!

PACE publicly recognizes certified businesses through free advertising. This includes Internet listings and advertising in newspapers, magazines, utility bill inserts, and radio spots.

Certified businesses receive a PACE window decal and framed certificate. PACE encourages the public to support businesses that contribute to the community through environmentally sound operating practices.

Savings of \$50 per fixture can be achieved annually with every LED exit sign installed with a one-year return on investment!

Energy efficiency is a key criteria when selecting an exit sign, along with appearance, visibility, and readability. The three prominent types of exit sign bulbs are described below, followed by a table listing the estimated costs of each option.

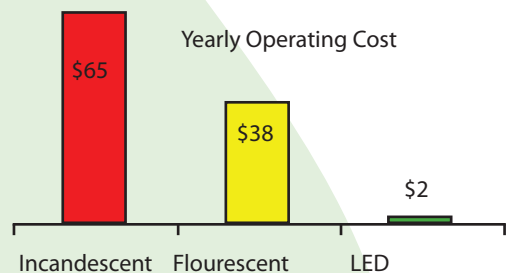
Incandescent lights were the first standard lights and are still prominent in commercial buildings because of their low bulb cost; however, they are the least energy-efficient option and require the most maintenance since they have the shortest lamp life.

Fluorescent lights have advanced, with compact fluorescent lamps leading the way. The lamps are very bright, but they have uneven illumination and moderate lamp life. They are more energy-efficient than incandescents; however, they have a higher replacement cost.

Light Emitting Diode (LED) lights are the current standard due to their ultra-low energy usage, long bulb life, and excellent illumination. They have a moderate initial cost, but they also have minimal maintenance and the lowest operational cost.

Cost Comparison Table

The operating costs of conventional exit signs accumulate greatly over time. This graph shows that it makes sense to replace your old exit signs with LED signs. The operating cost estimates include bulb, labor, and electricity costs for one sign in operation for one year.



Fixture Type	Typical Wattage (watts)	Bulb Life (years)	Annual Bulb + Labor Cost	Purchase + Install Cost	Annual Energy Cost	1st Year Cost	10th Year Cost Savings
Incandescent (existing)	40	0.5	\$26	\$0	\$39	\$65	-
Fluorescent (existing)	11	1.0	\$27	\$0	\$11	\$38	\$269
LED (new installation)	2	10+	\$0	\$20 + \$25	\$2	\$47	\$581

Rebates may be available for every incandescent exit sign replaced with an LED sign - check with your utility provider!

Purchasing Considerations

- When purchasing new fixtures, try to select LED exit signs that have earned the Energy Star Label, assuring that the exit sign uses 5 watts or less, has a minimum 5-year warranty, and exceeds National Fire Protection Association standards. Visit www.energystar.gov.
- Heat emitted by incandescent bulbs can erode the wiring and add an unpleasing yellow hue on the casing of incandescent fixtures over time; therefore, consider replacing old exit signs with new LED fixtures instead of retrofit kits.
- Be careful when retrofitting existing fixtures with LED bulbs. Not all LED retrofit kits fit conventional exit signs.
- Factors to consider when purchasing new LED exit signs include: color of sign (green or red), battery backup, location and placement, applicable state and local building codes, appropriate casing material for application, and number of faces (single or double).

Suppliers of LED Signs

Exit signs readily available along the Front Range area include models from Dual-Lite, Lithonia, Technical-Consumer Products, Extronix and Prescolite. Prices for thermoplastic models start at \$17 online.

Company	Address	City	Phone Number
Conserve-A-Watt Lighting	720 Vallejo Street	Denver	(303) 629-0066
Crum Electric Supply Co	6260 Washington, Unit 22	Denver	(303) 429-1842
Home Depot	1600 29th Street	Boulder	(303) 449-4221
Light Bulb Supply	2010 Delgany Street	Denver	(303) 295-1800
McGuckin Hardware	2525 Arapahoe Avenue	Boulder	(303) 443-1822
Winlectric	1001 Delaware Ave, Suite A	Longmont	(303) 684-0930
4exits.com	http://4exits.com		(866) 345-4837
1000bulbs	www.1000bulbs.com		(800) 624-4488
Exitsignage.com	www.exitsignage.com		(866) 697-9560

The contents of this resource sheet are accurate to the best knowledge of PACE staff. It is the responsibility of the user to perform their own due diligence before implementing any of the above recommendations. Care should be taken when installing any electrical device, as improper installation can result in property damage and personal harm. All references to products, process, and services above by phone, name, trademark, or manufacturer are for informational purposes only and do not represent an endorsement of any particular product or entity by the PACE Program.

Helpful Resources

See the PACE website for a list of helpful resource sheets
www.pacepartners.com

LED Exit Sign Options

Thermoplastic

Die-Cast Aluminum

Edgelit

Combination Exit &

Emergency Light

LED Retrofit Kit



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