Chapel Hill Downtown Partnership Technical Series

# LED EXIT Signs QUICK QUESTIONS

## WHAT IS THE ENVIRONMENTAL IMPACT OF EXIT SIGNS?

The US Department of Energy found that there are more than 100 million EXIT signs in use in the United States. These EXIT signs contribute to the enormous amount of pollution the United States puts out each year.


## WHAT CAN MY BUSINESS DO?

Installing light-emitting diodes (LED) EXIT signs will not only use less energy, approximately 44 kWh, which will help contribute to less pollution but it will help lower your businesses electricity bills. Incandescent lights use 30- 35 billion kWh each year or 17,500,000 pounds of coal.

## WHY ARE LED EXIT SIGNS BETTER THAN TYPICAL SIGNS?

Most EXIT signs are lit with incandescent bulbs that have a short life span and consume a significant portion of energy. LED EXIT signs consume less energy, cost less to upkeep and need less maintenance. There is a positive impact on the environment and a cost savings for businesses. LED EXIT signs are superior than fluorescent signs, because they do not contain mercury, which can be harmful to the environment.

## WILL I HAVE TO REPLACE ALL OF THE EXIT SIGNS?

There are LED lamps available to fit existing incandescent fixtures. They cost from $24 - $40 for two lamps. With an average of $.08 per 8 kWh, $24-$40 for the lamps and $10 for labor to replace the fixture, it will pay for itself in two years.

## ARE THERE OTHER BENEFITS TO LED EXIT SIGNS?

LED EXIT signs can be safer than other signs. The monochromatic nature of the light from LED's provide a greater contrast with the background of the light. LED EXIT signs tend to be brighter than other lights. Lastly, LED EXIT signs have a battery back up system that can last up to 90 minutes in case of a power failure. These factors help make LED EXIT signs safer for a business.

**More Information:**

To calculate the savings and get detailed information on LED EXIT signs please visit:

www.energystar.gov

www.informinc.org/fs_P3exitsigns.pdf

http://www.energync.net/resources/docs/pubs/exitsigns.pdf

www.theexitstore.com

| Type of Sign | Wattage | Annual Energy Usage | Annual Energy Cost | Lamp Service Life | Annual Carbon Dioxide Pollution | Replacements over 10 Years |
|---|---|---|---|---|---|---|
| LED | 1-3 watts | 44 kWh | $4 | 10+ Yrs | 72 lbs. | 0 |
| Fluorescent/ CFL | 10-15 watts | 140 kWh | $11 | 10.8 Mons | 230 lbs. | 6 |
| Incandescent | 30-50 watts | 350 kWh | $28 | 2.8 Mons | 574 lbs. | 4-29 |

Published by:
Chapel Hill Downtown Partnership
308 West Rosemary St., Suite 202
Chapel Hill, NC 27516
www.downtownchapelhill.com
967-9440

This Technical Series Sheet was made possible by the research of Chapel Hill High School students Byrd Nichols and Kody Pratson. Although this research project was originally for a school assignment, Nichols and Pratson are pursuing their research efforts by launching a campaign to encourage business owners in Chapel Hill and Carrboro to adopt sustainable business practices with the use of LED EXIT signs. Please contact them at kodysmith@gmail.com and ebqn@earthlink.net for more information.