

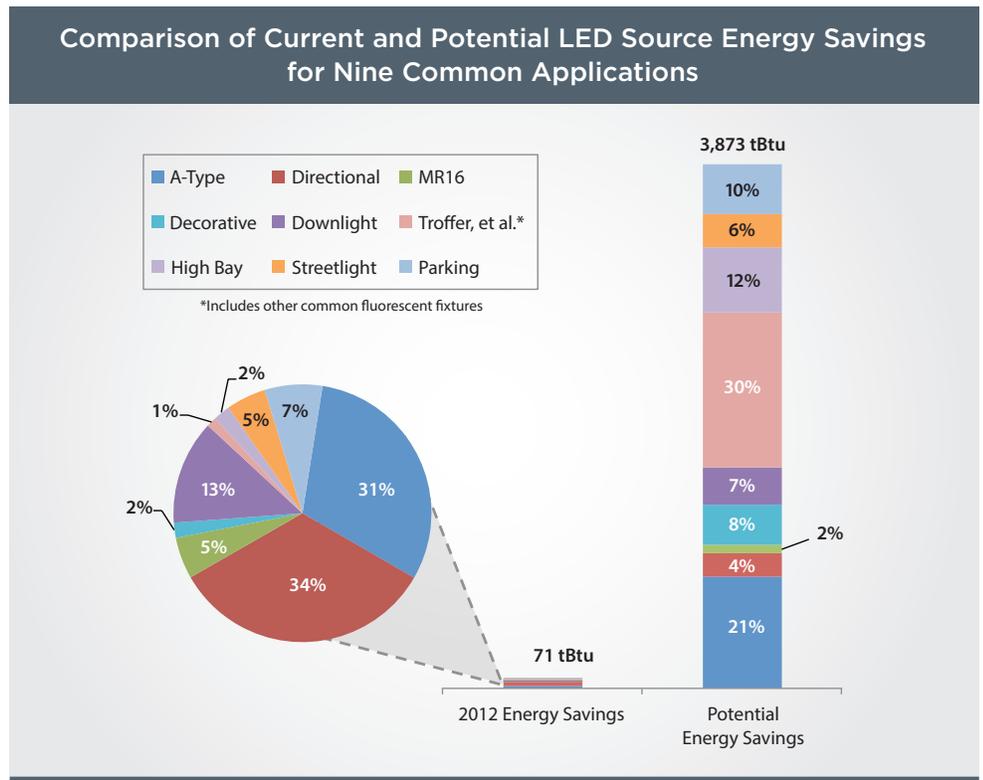
REPORT SUMMARY:

Adoption of Light-Emitting Diodes in Common Lighting Applications

The U.S. Department of Energy (DOE) has invested in advancing solid-state lighting (SSL) due to the large energy savings potential of this revolutionary technology. The recent DOE report *Adoption of Light-Emitting Diodes in Common Lighting Applications* indicates that the nation is already starting to benefit from this investment.

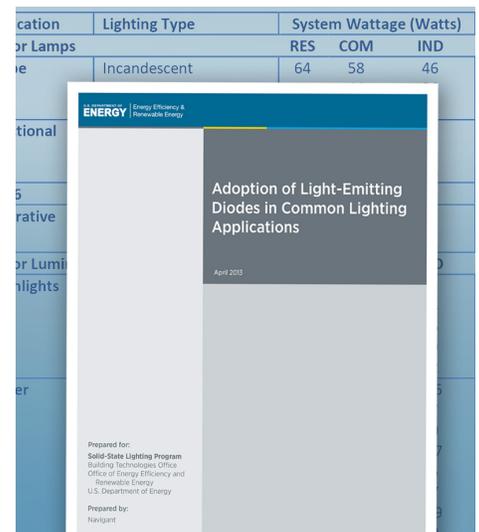
The DOE report examines nine major lighting applications where light-emitting diodes (LEDs) are already competing with traditional lighting technologies. For each of the nine applications, the report addresses the following four questions:

- How much energy in the year 2012 was consumed by lighting technologies in these applications?
- What is the 2012 estimated penetration of LED technology in each application?
- What are the actual energy savings resulting from the 2012 level of LED penetration?
- What would the theoretical energy savings be from 100% LED penetration?



Findings

The report found that in 2012 LED lighting was responsible for saving 71 trillion British thermal units (tBtu) of source energy across the nine applications examined. This equates to roughly \$675 million of annual energy expenditures that consumers are already saving. As shown in the figure, these already impressive savings are dwarfed by the remaining potential of LEDs. If the U.S. were to make an immediate switch to all LED lighting, the savings that would result is about 3.9 quadrillion Btu (quads). In addition, this estimate is based on current efficacies of LED products. As LED efficacies continue to advance, as is projected by DOE's SSL program, the energy savings potential will grow.



The full report with more detailed results can be downloaded at www.ssl.energy.gov/tech_reports.html.

For More Information

To learn more about DOE Solid-State Lighting program activities, visit www.ssl.energy.gov.