

## LED Market Insights Roundup

March 2015

## ROI of Switching to LEDs



Municipalities expect to reduce annual energy costs by at least **50%** by switching existing fixtures to LED lights.



LEDs are expected to become the lighting technology of choice for commercial markets within the next 10 years.

By 2023, the installed base of LED luminaires for commercial applications is expected to grow globally from \$187M in 2014 to nearly **\$2.8B**  By 2021, global revenue for the LED manufacturing & installation sector is expected to grow from \$2.7B in 2013 to more than

\$**25**B



the annual rate of lighting systems

U.S. Department of Energy (DOE) programs are driving aggressive cost reductions for LED products

# 65%

the projected cost reduction of LED packages by 2020

The packaging piece of an LED unit accounts for 61% of the final cost

# 

potential increase in energy efficiency switching to LEDs

LED lighting upgrades can also reduce demand on HVAC systems by 15% Though ROI will vary from project to project, the long-term cost savings of LEDs will come from:

- Reduced frequency of replacing lighting units
- Reduced maintenance between retrofit or replacement projects





# Municipal LED Projects: Successes



# 40-80%

Ann Arbor, MI reduced maintenance costs for streetlights, car parking lights, and office lighting by installing LED alternatives.



Ashville, NC implemented an LED streetlight program in 2008 that had an ROI of 5.1 years and cut energy costs by





# Anticipated Municipal **LED Streetlight Projects**

#### Honolulu

is considering replacing 52,000 city-owned streetlights. Anticipated annual savings are **\$3 million**, or **\$58 per pole each year**.

#### **Massachusetts**

plans to replace 6,000 streetlights & other outdoor lights in 2 phases over the next few years. Estimated annual savings: **\$500,000**, or **\$83 per pole per year**.

#### Poughkeepsie, NY

is replacing 1,880 streetlights at a cost of \$3.2 million. The city's annual savings target is **\$400,000**, or **\$222 per pole per year**.

#### San Jose, CA

will replace 1,500 streetlights, with an estimated annual savings of **\$660,000**, or **\$440 per pole per year**.



**Selling to Municipalities:** Managing Expectations

**Customer education is key.** LED vendors have the opportunity to add value by informing the customer and ensuring that projects meet expectations.

### **Cost Expectations**

## LED lights are 2 to 4 times more expensive than traditional lighting.

The upfront costs associated with implementing LEDs might be too prohibitive for municipalities unless they are able to access government, manufacturer, or other subsidies.



### **Time Expectations**

Many entities expect to see cost savings in 1 to 3 years, but in reality it might take 5 to 10 years for ROI to be realized, depending on the project.



### **Design Expectations**

LED products must be compatible with the desired application and must also be of sufficient quality to comply with industry standards set for energy savings.

Combining the right LED products with smart controls (i.e. lights that go off when not in use) is the key to maximizing energy savings for most projects.



### For more information, visit:

AllLEDLighting.com

EERE.energy.gov

LEDInside.com

AmericanCityandCounty.com

MyLEDLightingGuide.com

AshevilleNC.gov

NavigantResearch.com

**TheCleanRevolution.org** 

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