Power Connections
Spring 2012
Shakopee Public Utilities

LED – The Future of Lighting

LED technology has been around for years and has been prevalent in applications such as power indicators on electronic devices, calculators and digital watches. However, changes in the energy codes for building owners in recent years have enticed building owners and lighting designers to take a closer look at light-emitting diodes (LEDs).

Offices are already seeing the first niche of LED applications with desk lights and emergency lighting. Conversely, replacements for conventional general LEDs are still some years off because the cost per lumen ratio is still high.

It is expected that LED lighting will continue to grow in the coming years and is already making an impact in industrial areas concerned with lighting in fire hazard and explosion risk areas. These settings are ideal for LEDs as they operate at Safety Extra Low Voltages. Their reliability, long life and instant flicker-free turn on are also major selling points.

As LEDs move into the mainstream, hotels and restaurants are installing LED for decorative purposes in bars, and reception and dining areas. Signage is another effective use for LED as a replacement for fluorescent, incandescent and neon lamps. Their low energy consumption, bright clear colors and long life make them ideal.

Other areas that are leading the LED movement are refrigerated cases. The LED strip fixtures produce less heat adding refrigeration savings to the lighting energy savings. In addition, LED fixtures have a longer life than fluorescent and incandescent lighting, reducing maintenance costs.

Recently, there have been advances in LED lighting technology which have led to a wide variety of applications, such as parking lot and street lighting, security and display lighting, as well as high bay applications.

When it comes to optimizing this technology's potential, manufacturers are learning to deal with heat issues. While, these light sources do not throw heat into the environment, they do require a "heat sink" to handle the heat created on the non-illuminating side.

Another issue in the LED evolution, color appearance and color-rendering capabilities can vary greatly between manufacturers. Variance in the color appearance makes it imperative to test the LED in the application before purchase and installation.

The use of LEDs will continue to increase as the technology matures. Strides to improve the technology will enable mass-market general lighting applications within the next two to three years.

For more information on LED rebates, please contact Shakopee Public Utilities. Rebates are offered for LED exit lights and refrigerated cases. Other LED applications are considered on a case-by-case basis.

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Shakopee Public Utilities
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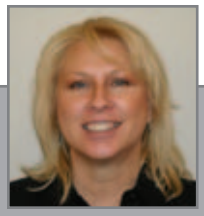

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In This Issue

Introducing Power Connections

A Newsletter for Commercial and Industrial Customers

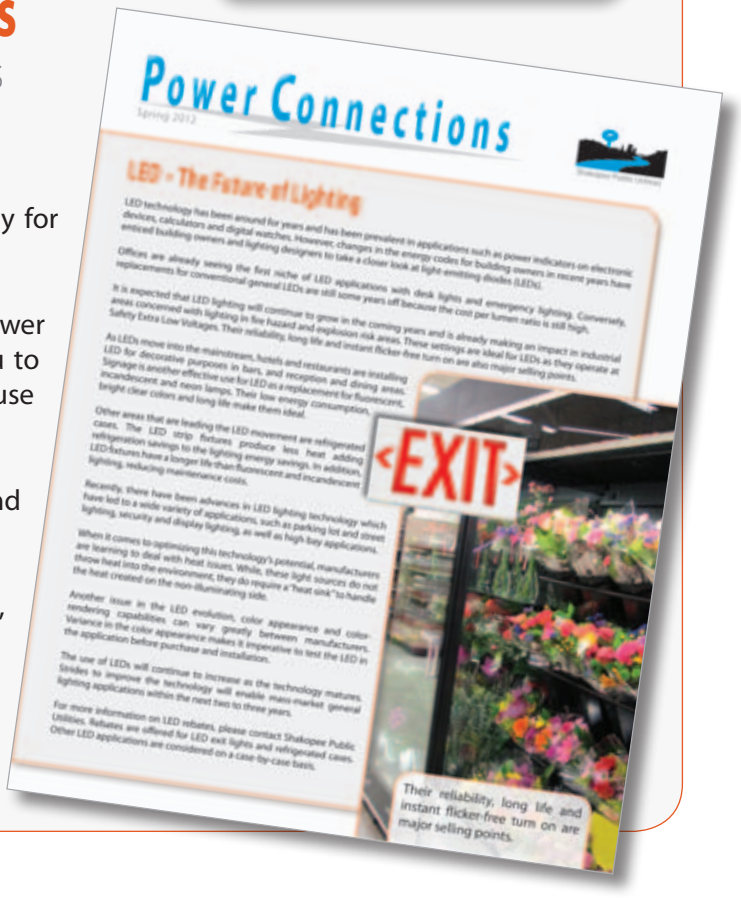
Welcome to Power Connections!

Power Connections is a quarterly newsletter designed specifically for commercial and industrial customers of Shakopee Public Utilities.

Because energy-saving technology is consistently advancing, Power Connections was developed to provide information to allow you to make informed decisions to help reduce your company's energy use and save money.

We hope you will find the contents of the newsletter informative and of value.

If you have questions or comments regarding Power Connections, please feel free to contact us.



Contact Julie Ambach, your SPU account representative, for specific energy-saving recommendations for your business.