

# Executive Summary

Companies everywhere are taking a hard look at their business models, re-evaluating every item of their budgets to achieve the best possible return on their investments.

One of the biggest budget items is the energy required to actually run the business. Lighting represents a big portion of that energy requirement, and making the decision to retrofit your signage and displays with more energy-efficient lighting can go a long way toward helping you keep more of your hard-earned dollars.

Whether buying LED signage or retrofitting your fluorescent signage and displays with energy-saving LED lamps, you can save money in a number of ways. LEDs offer several advantages to help with your lighting problems, including high efficiency and durability; with superior life over other lamp sources, their required maintenance is greatly reduced. This translates into energy savings, maintenance savings, and an overall reduction in cost of ownership over the product's lifetime.

The advantages of LEDs include:

- **Energy savings** – LEDs use 90% less energy than fluorescent lamps and generate less heat
- **Long life span** – LEDs can last up to five (5) times as long as fluorescents
- **Opportunities for cost-sharing** – There are numerous federal, state, and local programs offering tax credits and rebates for installing energy-saving lighting
- **Directional light emission** – LEDs direct light only where it is needed
- **Breakage and vibration resistance** – LEDs have no breakable glass or filaments
- **Cold temperature operation** – LED performance actually improves in cold temperatures
- **Ecologically sound** – LEDs contain no mercury, unlike fluorescent lamps
- **No infrared or ultraviolet emissions** – LEDs intended for lighting do not emit IR or UV radiation
- **Instant on** – LEDs require no warm up time
- **Rapid cycling capability** – LEDs are not affected by frequent on-off cycles
- **Size advantage** – LEDs are small and require less storage space
- **Controllability** – LEDs are compatible with electronic controls to change light levels and color characteristics

The opportunities to replace conventional lighting for signage and displays with LED lighting are growing, fueled in part by the continual advancements in LEDs and the global need for energy-efficient lighting alternatives.

The remainder of this white paper will explain the above points in more detail, and will also make a dollars-and-cents comparison between LED and fluorescent lighting sources to help you make an informed decision for your company.