

The Fabulous
Lighting Maven
Unexpectedly Illuminating

ACTION-ORIENTED 'pEarls' OF WISDOM FOR DIRECTORS OF ENERGY AND MAINTENANCE
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Dear Reader:

It's not uncommon for the primary metric, when determining a go/no go decision, to be **Simple Payback**, which, simply put, is the total cost of the investment (in this case a lighting system) divided by the annual dollar savings.

The better approach to determining the quality of an LED investment is to engage in a more thorough Life-cycle Cost Benefit Analysis, which comprehensively looks at the value of the investment over a longer period of time – the total life of the investment. With LED lighting, because of the lack of heat generated by the fixture as well as an improved heat dissipating design over fixtures of old, they last significantly longer. When this reality is factored into the analysis, the benefits to LED are strikingly positive.

LIFE-CYCLE COST BENEFIT

Our contracting company has developed a Life-cycle Cost Benefit template that we use to calculate the Internal Rate of Return from an LED investment, as well as the Cash Flow produced from that investment over a ten-year period of time. You might want to download it [here](#), and if so, feel free to call me if you want to discuss its use.

Bridget McCrea of Digi-Key Electronics has put out a wonderful article on their website that explains the Life-cycle Cost Benefit Analysis comprehensively. Typically, when a Facilities Buyer is involved in LED due diligence, he/she is about to spend a lot of money on a new lighting system, and it's beneficial to understand all of the components that go into modeling to this extent. You'll find it here: [5 Reasons to Use Total Cost of Ownership](#).

The Whole Building Design Guide has also published an article on this subject, and we think you'll find that [Life-Cycle Cost Analysis \(LCCA\)](#) is worth the read.

And finally, Stanford University includes guidelines for this type of analysis on their [Sustainable Stanford](#) website, and you can find them with a click at [Guidelines for Life Cycle Cost Analysis](#).

It's no secret that there are multiple benefits to converting to LED lighting in your plant, beyond the obvious increase in **Efficiency and Efficacy** over whatever kind(s) of lighting your plant has now. Warranties are at least 5 years, sometimes 10, eliminating maintenance needs over that period of time. Heat generation is less, so there is a favorable impact on cooling loads, a significant benefit to food processors. The quality of the LED light is radically better, and the optical accessories available with new LED enables the Facilities Manager to really 'dial in' the lumens to where they're needed and in what quantities. We think a comprehensive Life-cycle Cost Benefit Analysis tells this story best, and are available to help should you decide to model it for your investment decisions.



U.S. Power is an industrial energy services company that specializes in the reduction of energy consumption across a broad array of manufacturing and food processing facilities located in Michigan, Ohio, Indiana, Illinois and Wisconsin. In addition, the company publishes a useful curation of lighting-oriented information from the marketplace, and consolidates it into this concise, twice per month letter known as The Fabulous Lighting Maven, distributed to Facilities Managers throughout the nation.

While the company prides itself in its diversity, it owns and operates a niche lighting contracting firm as well, known as U.S. Power Vision, LLC. With a core business in and around industrial LED lighting, it keeps itself and its clients at the cutting edge of illuminating technologies, all aimed at providing – from the eyes to the fingertips – exceptional illumination, superb control and intuitive simplicity.

YOUR MORNING GRIN

The human race has one really effective weapon – laughter.

We're glad you're at least grinning.

Ron Motsch
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*Building and Managing a Suite of
The Most Productive and Admired
LED Lighting Systems on Earth*

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