

The Fabulous  
**Lighting Maven**  
*Unexpectedly Illuminating*

ACTION-ORIENTED PEARLS OF WISDOM FOR INDUSTRIAL MANAGERS AND CONTRACTORS  
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Dear Reader:

We're pretty negative on the value of the Simple Payback metric in assessing the investment quality of a potential LED lighting retrofit, as it alone doesn't do a very good job in modeling the complete benefits of LED.

We 'get' the need to produce it, as the vast majority of management personnel need to see it so that they can review the project in comparison for other competing projects that might be vying for money in a budgeting process, and it's one of the primary metrics that companies use. The Facilities Manager has to speak in the language that's being spoken, and all finance-oriented managers utilize Simple Payback as a comparative tool.

**SIMPLE PAYBACK**

That said, it's almost too simple to be meaningful, in our opinion. Simply put, and quoting [WallStreetMojo.com](http://WallStreetMojo.com), the formula for calculating Simple Payback is:

$$\text{Simple Payback Period} = \text{Initial Investment} / \text{Net Annual Cash Inflow}$$

The answer to the due diligence question as to what point the investor gets its money back – when the benefits to the project will be precisely the same as the monetary investment amount – involves a simple A divided by B. When the 'lines cross', or in other words when the benefits in terms of electricity savings catches up with the investment amount, that's the Simple Payback Period. From that point on, you're playing with house money, as the investment has been paid for.

Here's the downside to Simple Payback, as explained by the [Saylor Academy](http://SaylorAcademy):

“The payback period is considered a method of analysis with serious limitations and qualifications for its use, because it does not account for the time value of money, risk, financing, or other important considerations, such as the opportunity cost. While the time value of money can be rectified by applying a weighted average cost of capital discount, it is generally agreed that this tool for investment decisions should not be used in isolation. Alternative measures of "return" preferred by economists are netpresent value and internal rate of return. An implicit assumption in the use of payback period is that returns to the investment continue after the payback period. Payback period does not specify any required comparison to other investments or even to not making an investment.

“Payback also ignores the cash flows beyond the payback period, thereby ignoring the profitability of the project. Thus, one project may be more valuable than another based on future cash flows, but the payback method does not capture this.”



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**

There are two types of people -  
those that  
accomplish things,  
and those that  
claim to accomplish things.

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We'll accomplish LED lighting things.

**Ron Motsch**  
**(616) 570-9319**

*Building and Managing a Suite of  
The Most Productive and Admired  
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