

# ELS FACT SHEET

## Why Popular Financial Metrics Are Misleading When Evaluating an LED Project

Most CFOs rely only on **popular metrics** for evaluating energy projects.

### POPULAR Metrics

**Simple Payback (SPP)** - The amount of time it takes to recover your initial investment through savings.

**Return on Investment (ROI)** - The reciprocal of SPP. It is the first-year savings divided by first cost.

**Internal Rate of Return (IRR)** - The annualized effective compounded return rate that assumes the net present value of the project is equal to zero.

### PROPER Metrics

**Net Present Value (NPV)** - Calculates the difference between the present value of cash inflows and the present value of cash outflows.

**Modified Internal Rate of Return (MIRR)** - Assumes that positive cash flows are reinvested at the firm's cost of capital, and the initial outlays are financed at the firm's financing cost.

**Savings-to-Investment Ratio (SIR)** - Expresses the ratio of savings to costs, recommended for establishing priorities among projects.

### Why are popular metrics potentially misleading when evaluating an LED project?

- They do not take into account the time value of money.
- They treat every dollar received as if it were received today.
- They ignore cash flows after the initial investment is recovered.

Companies need to consider total life-cycle cost in order to get the best analysis of a project. For example, it's possible to choose a project with an ROI/SPP of 12 months, but has a higher life-cycle cost than a project that has a 36-month ROI/SPP. Life-cycle cost analysis looks at the total cost of a project including: first cost; operation, maintenance, & repair costs; financing costs; serviceable life of the project; & salvage. **Proper metrics truly analyze the life-cycle cost of the project.**

Using proper metrics will give you the real cost-savings and investment profile for an energy project. **Beware** if you work with a contractor who only publishes the popular metrics. You'll be better off in the long run working with an experienced, qualified ESCO who knows how to use proper metrics so you can truly evaluate the financial investment of an energy efficient LED lighting upgrade.