

“Retrofit Away” – Building a Winning LED Retrofit Lighting Proposal

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Retrofit Benefits

Highlighting the Key Benefits of Retrofitting to Clients

- Retrofits are often more **cost effective** than a complete replacement, and offer the customer a faster payback.
- Retrofits are **less disruptive** than a redesign. For example, many LED Retrofit Kits fit right into the existing ceiling grid with limited disruption.
- Retrofits typically **install easily**, often with less dust in the space (a benefit especially in medical and health applications).
- **Energy savings** can add up quickly, given that lighting represents 30%+ of electricity used for lighting a commercial building.
- Retrofit costs **may be funded with local utility rebate programs** for even more affordability to upgrade to higher efficiency.



Which Clients Need Retrofit?

- Clients with **smaller budgets**- those who want the benefits of LED but don't have the capital to invest in full fixture replacement.
- Clients who **don't want to disturb dust**, insulation, or possibly asbestos in the ceiling while upgrading (i.e.: hospitals, schools, older buildings, etc.).
- Clients who need a **quick solution**- retrofitting is faster than replacing full fixtures.



Elements of a Winning Proposal

- Energy Savings
- Maintenance Savings
- Rebates
- Crucial Numbers and Calculations
- Upselling
- Creating a sense of urgency
- Options for Limited Budgets



Case Study

Blain's Farm & Fleet Store

- Blain's Farm & Fleet Store's Elgin location used retrofitting when it underwent a top-to-bottom renovation.
- The facility management team wanted to improve the building's existing fluorescent lighting system with two goals in mind—**lighting quality** and **energy efficiency**.
- 800 fixtures in the store were retrofitted with LED.
- The EVERLINE LED light bars provided broad, **even light distribution** across shelves and **consistency in color** over a variety of products.
- Store displays and department layouts will be disrupted less often for lighting maintenance because of the long LED lifespan.
- The EVERLINE LED Retrofits created cost savings for the store with a **50% reduction in energy consumption** and a **20% rebate** from the local electric utility.
- The project is estimated to pay for itself within 30 months.

“Right away the lighting quality was very good in each fixture, and we were able to see the difference the LED was making as we completed each row.”

“With the rebate and energy savings, we calculate the system will pay for itself within 30 months.”



Scan for full case study.

LED Energy Savings



Client Energy Savings

- LED lights use up to **50% less energy** than fluorescent, incandescent and HID lamps.
- LED controls can be added to provide up to **30% more energy savings**.
- LED lights **generate far less heat** for the HVAC system to remove in the summer.

	Fixture	Lumens	# Lamps / Fixture	Watts / Fixture	Operating Hours	KWh	Utility Rate	Annual Cost of Electricity
EXISTING	2x4 4L T8	10,248	4	107	2500	267.5	\$0.12	\$32.10
RETROFIT	LRK24-60L	7,960	2	61.6	2500	154.0	\$0.12	\$18.48
SAVINGS				45.4				\$13.62

Client Maintenance Schedules

Use the Client's Current Maintenance Schedule to Show a More Accurate ROI

Uses lifespan of existing lamps compared to annual operating hours (assumes retrofits were installed instead of re-lamping)

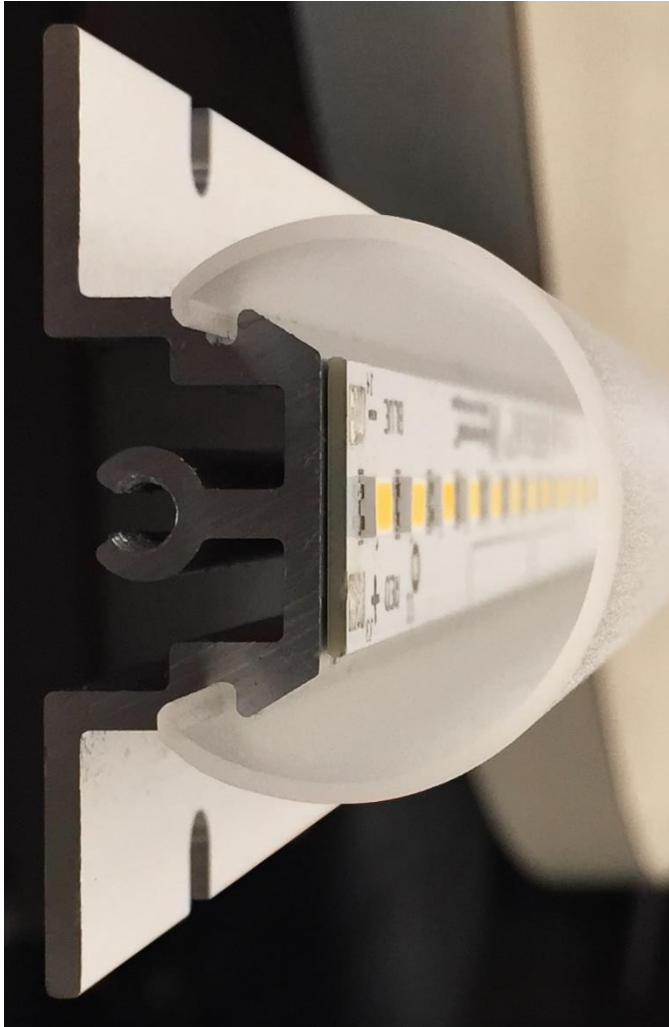
	Year 1	Year 2	Year 3	Year 4	Year 5
Product Costs	\$135,714	-	-	-	-
Energy Savings	\$43,726	\$44,819	\$45,939	\$47,088	\$48,265
Maintenance Savings	\$39,200	\$0	\$0	\$19,200	\$0
Net Cash Flow	\$(52,788)	\$44,819	\$45,940	\$66,288	\$48,265
Cumulative Cash Flow	\$(52,788)	\$(7,969)	\$37,970	\$104,258	\$152,524

Amortizes total maintenance over each year

	Year 1	Year 2	Year 3	Year 4	Year 5
Product Costs	\$135,714	-	-	-	-
Energy Savings	\$43,726	\$44,819	\$45,939	\$47,088	\$48,265
Maintenance Savings	\$9,760	\$9,760	\$9,760	\$9,760	\$9,760
Net Cash Flow	\$(82,228)	\$54,579	\$55,700	\$56,848	\$58,025
Cumulative Cash Flow	\$(82,228)	\$(27,649)	\$28,050	\$84,898	\$142,924

Only effects ROI number. IRR and NPV are unchanged since total maintenance number is the same.

Understanding LED Maintenance



The L70

- LED modules don't burn out- but gradually dim over their rated life.
- Considered to have reached its rated life when it emits 30% less light than it initially did (after approximately 50,000 hours of use).
- Reported vs. Calculated L70
- Showing clients the long life and low-maintenance of LED will add value to proposals.

Understanding Driver Maintenance

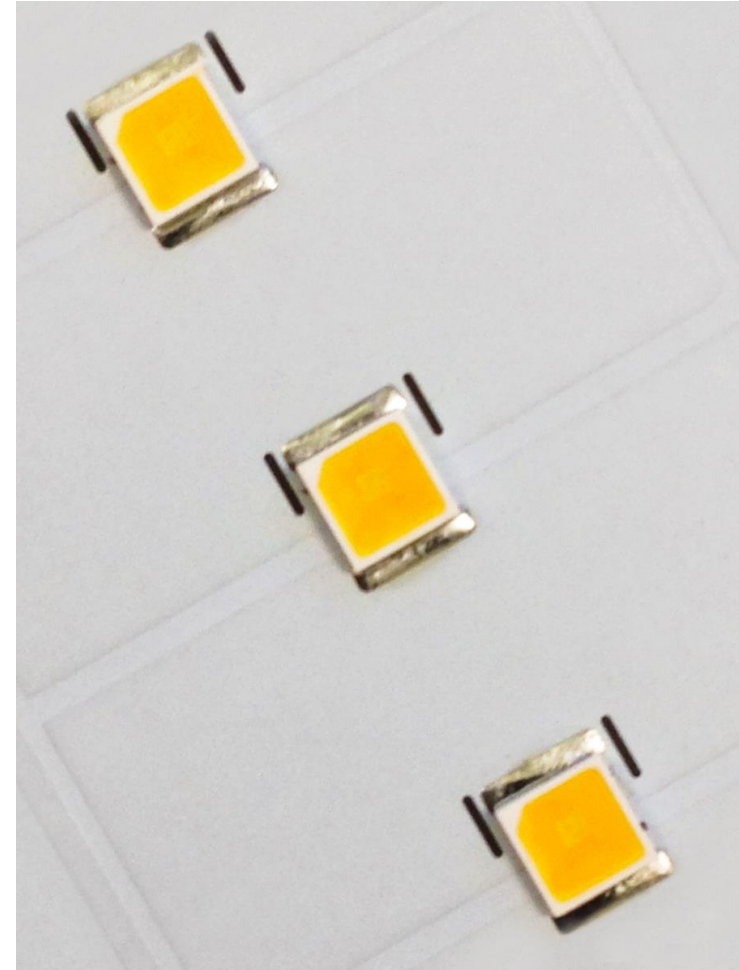
Driver Tuning and Replacement

- Drivers need to be tuned to the correct output current
- When a light appears brighter or dimmer than those around it, the driver needs to be re-tuned (if tunable) or replaced.
- If all LEDs on the module are flickering and the driver is connected correctly, it is probably time to replace the driver.
- Driver life expectancy is based on the output current it is set to and the heat generated. The lower the temperature, the longer the life of the driver and module.
- Many different kinds of drivers exist including constant current, constant voltage, tunable, fixed output. Tuning with an app on a cell phone makes offering replacement drivers much faster than having to order them pre-tuned from a manufacturer.

LED Rebates

Types of Rebates for Clients

- **Point of Sale-** an incentive for a specific product type issued at the time the product is purchased. This is the easiest type of rebate for clients to take advantage of.
- **Prescriptive-** an incentive that is paid out based on guidelines identified for a specific item sold. The client will receive a check after applying for the rebate after retrofits are installed.
- **Midstream-** savings are made during the sale due to a distributor's incentive from wholesalers to encourage inventory stocking.
- **Custom-** incentives for projects that don't fit requirements for existing rebate programs. These are generally more complicated to navigate.



Crucial Numbers and Calculations

NPV – Net Present Value

- NPV – Net present value is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. It uses a discount rate that represents gains made if the money for the project were invested elsewhere. Any project with a positive NPV is attractive for your customer, because it represents more cash gained compared to normal day to day business.

IRR – Internal Rate of Return

- IRR – Internal Rate of Return is the percentage back that the end user based on the rate of growth a project is expected to generate. IRR can be a better metric for comparing projects with different costs or durations. The IRR is also useful in determining between a cash purchase and loan purchase.

Demand Charge

- Demand Charge – Demand Charge is determined by the electrical company and measures the peak energy used in a commercial space. This usage is measured in kW and multiplied by the demand rate. LED lighting will contribute to power reduction in this area.

Upselling

Using Different Evaluation Periods

- Using different increments of time when showing ROI will be more attractive to the client than simply showing the payback period.
- An ROI of 10 years will be higher than ROI for 5 years, so this can be used to upsell different lighting options.

5 Year Warranty ROI (Lamps)

	Year 1	Year 2	Year 3	Year 4	Year 5
Product Costs	\$41,450	-	-	-	-
Energy Savings	\$46,563	\$47,727	\$48,921	\$50,144	\$51,397
Maintenance Savings	\$39,200	\$0	\$0	\$19,200	\$0
Net Cash Flow	\$44,313	\$47,727	\$48,921	\$69,344	\$51,397
Cumulative Cash Flow	\$44,313	\$92,040	\$140,961	\$210,305	\$261,702

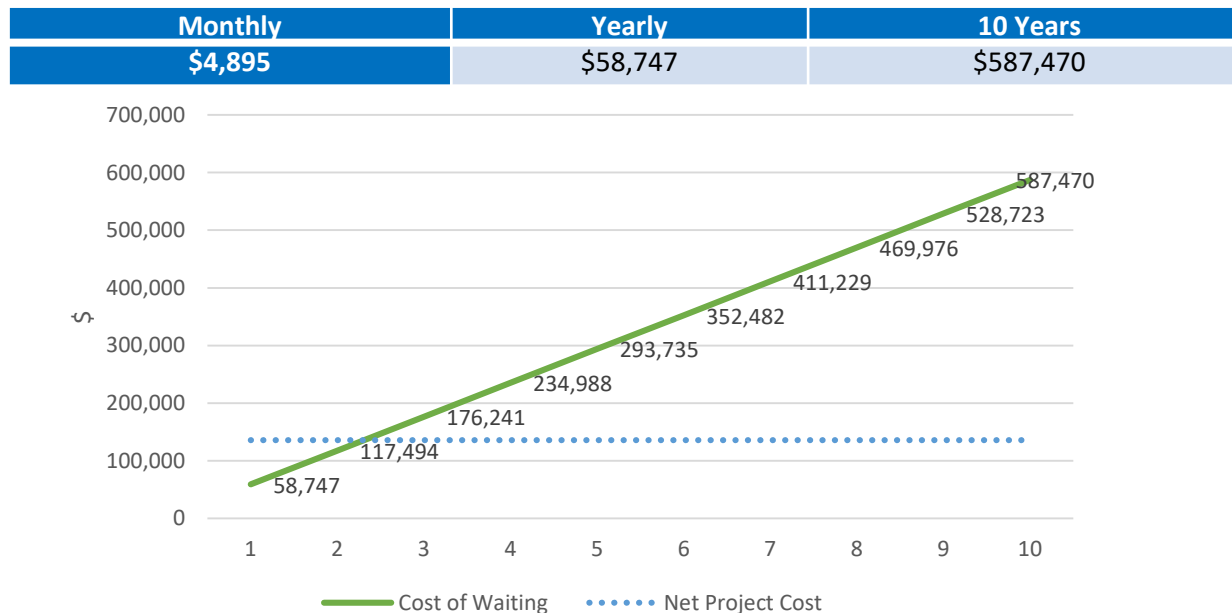
10 Year Warranty ROI (Kits)

	Year 1	Year 3	Year 5	Year 7	Year 10
Product Costs	\$135,714	-	-	-	-
Energy Savings	\$43,726	\$45,939	\$48,265	\$50,709	\$54,608
Maintenance Savings	\$39,200	\$0	\$0	\$0	\$0
Net Cash Flow	\$(52,788)	\$45,940	\$48,265	\$50,709	\$54,608
Cumulative Cash Flow	\$(52,788)	\$37,970	\$152,524	\$252,704	\$451,764

Create a Sense of Urgency

Showing the Client how Waiting to Upgrade will Cost Them

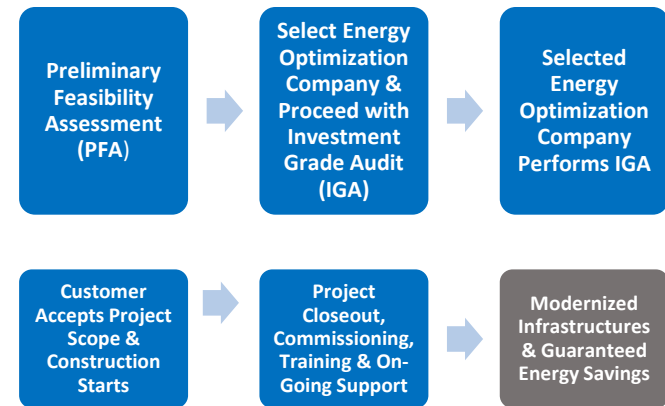
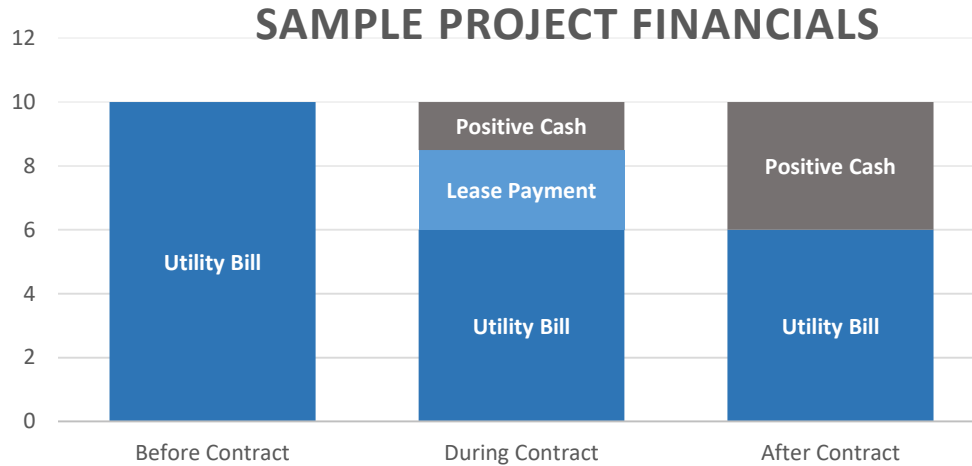
- Each day the client waits to upgrade to energy efficient lighting, they are missing out on the opportunity to reduce their operating expenses.
- Show them that waiting is more costly than upgrading to create a sense of urgency.



Limited Budgets

Performance Contracting

- How it Works:



- When to Consider:
 - Limited cash flow
 - Limited upfront funds
 - End user currently upgrading other areas of business

Limited Budgets (continued)

Prioritizing Different Rooms and Areas

- Breaking out each room into individual ROIs can help clients understand where their money will go the furthest and where to upgrade first.

	Total Project	Front Offices	Warehouse	Parking Lot
Cost	\$100,000.00	\$20,000.00	\$50,000.00	\$30,000.00
ROI	4.2 Years	5.5 Years	3.25 Years	3.85 Years

Contact Info for Questions

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