

LED Lighting Proposal

PREPARED FOR:

Midview Schools



13050 Durkee Rd.
Grafton Ohio, 44044
440-748-5353

Presented By:
Energy Harness Corporation



Manufacturer: Energy Harness Corporation

Executive Summary:

The project is to convert existing facility lighting to energy efficient LED lighting. The lighting conversion project will result in both greatly improved lighting and a significant reduction in electric usage and maintenance costs.

Electrical Savings

Current lighting usage	1,866,660	KWh/year
LED replacement usage	<u>751,872</u>	KWh/year
Total Yearly Electrical Savings	1,114,788	KWh/year

Project Savings	*Kwh cost \$0.09	Monthly	Yearly
Current Electric Expense*		\$14,467	\$173,599
Future Electric Expense*		<u>\$ 5,827</u>	<u>\$69,924</u>
Total Electric Savings		\$ 8,640	\$103,675
Estimated Maintenance Savings		<u>\$3,573</u>	<u>\$42,875</u>
Total Savings		\$12,213	\$146,550

Project Cost

Materials and Installation	\$489,645.40
Estimated Incentives LMRE Rebate	<u>\$0.00</u>
Total Project Cost	\$489,645.40

Estimated Return on Investment (ROI) **40 Months**

Total Savings Over Project Life (15 years)** **\$2,198,254**

**at today's electric cost

CO2 Displacement Savings **2,452,534 lbs/yr**

Project Benefits

- Electrical cost savings of **60%**
- Better lighting coverage, even distribution and more visible light
- Lower overall maintenance and no bi-annual replacement cost
- Helping the environment with lower electric company emissions
- No mercury being put into landfill due to bulb disposal

Project Description

Convert the existing lighting to energy efficient, 70,000 hour LED lighting using Energy Harness lighting products and technologies. The onsite visit and lighting audit provided the Energy Harness engineering team with the data needed to determine the appropriate deployment of new LED light engines for your facility. This will brighten the interior and exterior areas while significantly lowering the electric costs and virtually eliminating maintenance of bulb and ballast replacement.

Project Pricing

	Description	Qty	Unit Price	Ext. Price
	15 watt 2' LED T5 double integrated tube <i>Replaces - 32 watt 2' fluorescent T12's U-bend</i>	12	\$21.95	\$263.40
	15 watt 4' LED T5 integrated tubes <i>Replaces - 32 watt 4' fluorescent T8's</i>	10,140	\$22.95	\$232,713.00
	18 watt 4' LED T8 linear tubes <i>Replaces - 32 watt 4' fluorescent T8's</i>	5,060	\$21.00	\$106,260.00
	18 watt 4' LED T8 integrated tubes <i>Replaces - 400 watt Metal Halide High Bays</i>	620	\$22.95	\$14,229.00
	I-Beam High Bay Frame for integrated T8 tubes <i>Replaces - 400 watt Metal Halide High Bays</i>	75	\$65.00	\$4,875.00
	30 watt LED Retrofit Kit <i>Replaces - 175watt Metal Halide Wall Packs</i>	83	\$195.00	\$16,185.00
	90 watt LED Retrofit Kit <i>Replaces - 400watt Metal Halide Parking Area Lights</i>	142	\$295.00	<u>\$41,890.00</u>
			Sub Total	\$416,415.40
	Installation			
	Interior	15,692	\$3.75	\$58,845.00
	Exterior	83	\$45.00	\$3,735.00
	Exterior	142	\$75.00	<u>\$10,650.00</u>
	Grand Total			\$489,645.40

LED Features and Benefits

- ✓ **Saves Energy; LED lights use 50-90% less power than traditional lighting**
- ✓ **Saves money; lowers energy bills**
- ✓ **Saves the environment; less waste and disposal hazards**
- ✓ **Extremely long life lasts 4-5 times longer than traditional lighting- 60-100,000 hours**
- ✓ **Reduced maintenance costs; Replacement cycle costs are drastically reduced**
- ✓ **Reduces ambient heat; generates far less heat than traditional lighting allowing greater savings on air conditioning costs.**
- ✓ **Produces less glare; higher productivity and safety in the work place**
- ✓ **Better directional lighting; directionality allows for precision lighting with no wasted light**
- ✓ **Less pollution: No toxic chemicals like that found in traditional incandescent, fluorescent and HID lighting like- arsenic, mercury, lead, carbon dioxide or phosphorous.**
- ✓ **No UV radiation produces no ultra violet or infrared light**
- ✓ **Controllable: Able to set controls at individual light for on/off and dimming. Eliminates commercial demand charges. Ability to create a lighting system.**
- ✓ **Better visibility; White light has better color rendering. A blue car looks blue under an LED street light, not just dark.**
- ✓ **Available in warm white, similar to incandescent or pure white, similar to sunlight.**
- ✓ **Durable; breakage and vibration resistance**
- ✓ **Dark sky compliant; reduce light pollution**
- ✓ **Instant on; no waiting for the lights to warm up and restart like fluorescent, metal halide, and high pressure sodium lighting.**

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