## LIGHTING RETROFIT

 PROPOSALPrepared For

SAMPLE ONLY

Proposal Date
May 21, 2023

Proposal Expires

Site Information:
123 Main Street
Langley, BC
***FOR SAMPLE PURPOSES ONLY***

The material and information contained in this report is for general information purposes only. You should not rely upon the material or information here as a basis for making any business, legal or any other decisions.

Existing
Number of Fixtures
Lighting System Energy Consumption

142,560 kWh

After Retrofit
248
70,879 kWh

ANNUAL SAVING SUMMARY
(Energy Rate $\$ 0.1000 / \mathrm{kWh}$ )

Energy Reduction


71,681 kWh
REDUCED

Energy Savings

\$7,168
SAVED

Maintenance Savings


Carbon Savings


## FINANCIAL SUMMARY

(10 Year Analysis Period)

Project Cost
\$56,400
Tax
Less Rebates and Incentives
Net Project Cost
\$56,400

PAYBACK
6.08 yrs

ROI
15.08\%

NPV
\$8,597

IRR
9.57\%

## COST OF WAITING

Postpone for one month \$709
Postpone for six months
Postpone for one year

## EXECUTIVE SUMMARY

Itemized Cash Flow

|  | Year 01 | Year 02 | Year 03 | Year 04 | Year 05 | Year 06 | Year 07 | Year 08 | Year 09 | Year 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project Cost | \$(56,400) | - | - | - | - | - | - | - |  |  |
| Energy Savings | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 |
| Maintenance Savings | \$0 | \$2,781 | \$0 | \$10,021 | \$0 | \$0 | \$0 | \$0 | \$0 | \$582 |
| Net Cash Flow | \$(49,232) | \$9,949 | \$7,168 | \$17,189 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,750 |

Aggregate Cash Flow Over Ten Years (\$)


We understand that finalizing a project like this often takes time. However, each day you delay your upgrade, you are missing out on the opportunity to reduce your operating expenses. As shown below, the lost opportunity continues to compound over time.

10 Year Cash Flow Analysis

|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Project Cost | \$(56,400) | - | - | - | - | - | - | - | - | - | \$(56,400) |
| Energy Savings | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$71,681 |
| Maintenance Savings | \$0 | \$2,781 | \$0 | \$10,021 | \$0 | \$0 | \$0 | \$0 | \$0 | \$582 | \$13,384 |
| Net Cash Flow | \$(49,232) | \$9,949 | \$7,168 | \$17,189 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,168 | \$7,750 | \$28,664 |
| Cum Cash Flow | \$(49,232) | \$ $(39,283)$ | \$ $(32,115)$ | \$(14,926) | \$ $(7,758)$ | \$(590) | \$6,578 | \$13,746 | \$20,914 | \$28,664 | \$28,664 |

10 Year Net \& Cumulative Cash Flow (\$)


The cost of waiting shows the amount of cash your company will be losing if you delay the proposed lighting upgrade.


[^0]

Gallons of Gasoline Saved
5,693

Barrels of Oil not Consumed
118

\# of Household's Annual Electricity Usage
9


Acres of Trees Saved 41


Tons of Coal not Burned 28

| Existing Fixtures | Qty | Proposed Solutions | Qty |
| :---: | :---: | :---: | :---: |
| Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 158 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U | 158 |
|  |  | Highbays \& Lowbays/LED/Linear/4000K/80 CRI/010V Dimming Driver |  |
| Troffer/T8 Fluorescent/2 ft/17.0W/2 Lamp | 6 | Lithonia Lighting / 2BLT2 TUWH PROR 33L ADP [XXX] | 6 |
|  |  | Troffers \& Panels/LED/Center Basket/Tunable White |  |
| Troffer/T8 Fluorescent/4 ft/32.0W/4 Lamp | 84 | Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U | 84 |
|  |  | Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver (1\%-100\% Dimming) |  |
| Total | 248 | Total | 248 |

The following set of information evaluates your current energy usages and costs and compares that to the projected energy usage and costs your facility will see after the proposed lighting upgrade.

## Annual Energy Usage

| Current <br> Usage (kWh) | Projected Usage <br> (kWh) | Reduction | Current Cost | Projected Cost | Financial Savings | Percent Saved |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 142,560 | 70,879 | 50\% | \$14,256 | \$7,088 | \$7,168 | 50\% |
| 1. $\quad$ Energy cost $=\$ 0.1000 / \mathrm{kWh} ;$ Annual energy cost escalation $=0.00 \%$ <br> 2. Energy costs are averaged over a 10 -year analysis period <br> 3. Projected Usage (kWh) includes savings from controls if applicable |  |  |  |  |  |  |

## Annual Energy Usage Reduction

| Current Usage <br> $\mathbf{( k W h )}$ | Projected Usage <br> $\mathbf{( k W h )}$ | Reduction <br> $\mathbf{( k W h )}$ | Reduction |
| ---: | ---: | ---: | ---: |
| 142,560 | 70,879 | 71,681 | $50 \%$ |

## Energy Comparison



[^1]| Existing Watts | Proposed Watts | Reduced Watts | Reduction |
| ---: | ---: | ---: | ---: |
| 54,684 | 27,188 | 27,496 | $50 \%$ |

The calculations in this table take into account the existing fixtures that are being replaced, upgraded, and/or have new lighting controls being proposed for them.

## Lighting Wattage Comparison

## Office

| Space | Existing Fixture | Qty | Watts | Total Watts | Proposed Solution | Qty | Watts | Total Watts | Burn Hours |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conference Room | Troffer/T8 Fluorescent/2 ft/17.0W/2 Lamp | 6 | 29.9 | 179 | Lithonia Lighting / 2BLT2 TUWH PROR 33L ADP [XXX] <br> Troffers \& Panels/LED/Center <br> Basket/Tunable White | 6 | 0.0 | 0 | 2,607 |
| Main Area | Troffer/T8 Fluorescent/4 ft/32.0W/4 Lamp | 36 | 112.6 | 4,054 | Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U <br> Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver ( $1 \%-100 \%$ Dimming) | 36 | 34.0 | 1,224 | 2,607 |
| Office | Troffer/T8 Fluorescent/4 ft/32.0W/4 Lamp | 48 | 112.6 | 5,405 | Metalux / [XXX]-24RLN-LD5-45-UNV-L840- <br> CD1-U <br> Troffers \& Panels/LED/Center <br> Basket/4000K/80 CRI/0-10V Dimming <br> Driver (1\%-100\% Dimming) | 48 | 34.0 | 1,632 | 2,607 |
| Total |  |  | 255.1 | 9,638 |  |  | 68.0 | 2,856 |  |
| Warehouse |  |  |  |  |  |  |  |  |  |
| Space | Existing Fixture | Qty | Watts | Total Watts | Proposed Solution | Qty | Watts | Total Watts | Burn Hours |


| Mezz | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 6 | 285.1 | 1,711 | Metalux / HBLED-LD5-24SE-W-120V-L840- [XXX]-CD2-MP-[XXX]-U <br>  <br> Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 6 | 154.0 | 924 | 2,607 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receiving / Express | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 47 | 285.1 | 13,400 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br>  <br> Lowbays/LED/Linear/4000K/80 CRI/0-10V <br> Dimming Driver | 47 | 154.0 | 7,238 | 2,607 |
| Sales Pit | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 12 | 285.1 | 3,421 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br>  <br> Lowbays/LED/Linear/4000K/80 CRI/0-10V <br> Dimming Driver | 12 | 154.0 | 1,848 | 2,607 |
| Showroom | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 10 | 285.1 | 2,851 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br>  <br> Lowbays/LED/Linear/4000K/80 CRI/0-10V <br> Dimming Driver | 10 | 154.0 | 1,540 | 2,607 |
| Warehouse Aisle | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 62 | 285.1 | 17,676 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br>  <br> Lowbays/LED/Linear/4000K/80 CRI/0-10V <br> Dimming Driver | 62 | 154.0 | 9,548 | 2,607 |
| Wire room | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 21 | 285.1 | 5,987 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br>  <br> Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 21 | 154.0 | 3,234 | 2,607 |


| Total | $1,710.6$ |
| :--- | :--- |

## OPERATIONAL OVERVIEW

While energy is the largest long-term cost of lighting, the cost for maintaining your lighting system can also be a significant expense of your overall budget. Understanding the impact of longer lasting lighting systems on your maintenance costs is critical to understanding the true ROI of your project.

Operational Savings Summary

| Operational Area | Current <br> Annual | Projected <br> Annual | Reduction | Current <br> 10 Year | Projected <br> 10 Year | Reduction |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Energy | $\$ 14,256$ | $\$ 7,088$ | $50 \%$ | $\$ 142,560$ | $\$ 70,879$ | $50 \%$ |
| Maintenance | $\$ 1,338$ | $\$ 0$ | $100 \%$ | $\$ 13,384$ | $\$ 0$ | $100 \%$ |
| Total | $\$ 15,594$ | $\$ 7,088$ | $55 \%$ | $\$ 155,944$ | $\$ 70,879$ | $\mathbf{5 5 \%}$ |

1. Energy cost $=\$ 0.1000 / \mathrm{kWh}$; Annual energy cost escalation $=0.00 \%$
2. Energy costs are averaged over a 10-year analysis period
3. Maintenance costs are averaged over a 10-year analysis period

10 Year Operational Comparison (\$)

155,944


Energy

Maintenance
Current ■ Projected

1. Energy cost $=\$ 0.1000 / \mathrm{kWh}$; Annual energy cost escalation $=0.00 \%$
2. Energy costs are averaged over a 10-year analysis period
3. Maintenance costs are averaged over a 10-year analysis period

Fixture Replacement by Space

Office

| Space | Existing Fixture | Qty | Proposed Solution | Qty |
| :---: | :---: | :---: | :---: | :---: |
| Conference Room | Troffer/T8 Fluorescent/2 ft/17.0W/2 Lamp | 6 | Lithonia Lighting / 2BLT2 TUWH PROR 33L ADP [XXX] Troffers \& Panels/LED/Center Basket/Tunable White | 6 |
| Main Area | Troffer/T8 Fluorescent/4 ft/32.0W/4 Lamp | 36 | Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U <br> Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver (1\%-100\% Dimming) | 36 |
| Office | Troffer/T8 Fluorescent/4 ft/32.0W/4 Lamp | 48 | Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver (1\%-100\% Dimming) | 48 |

## Warehouse

| Space | Existing Fixture | Qty | Proposed Solution | Qty |
| :---: | :---: | :---: | :---: | :---: |
| Mezz | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 6 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP- <br> [XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 6 |
| Receiving / Express | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 47 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 47 |
| Sales Pit | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 12 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP- <br> [XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 12 |
| Showroom | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 10 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 10 |
| Warehouse Aisle | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 62 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 62 |
| Wire room | Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 21 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 21 |

Replacement by Fixture

## Existing Fixture

Qty Proposed Solution

| Highbay/T5 Fluorescent/4 ft/54.0W/6 Lamp | 158 | Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP- <br> [XXX]-U <br> Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver | 158 |
| :---: | :---: | :---: | :---: |
| Troffer/T8 Fluorescent/2 ft/17.0W/2 Lamp | 6 | Lithonia Lighting / 2BLT2 TUWH PROR 33L ADP [XXX] Troffers \& Panels/LED/Center Basket/Tunable White | 6 |
| Troffer/T8 Fluorescent/4 ft/32.0W/4 Lamp | 84 | Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U <br> Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver (1\%-100\% Dimming) | 84 |

The following tables break out the costs of material and installation fees that are included on your proposal.
Fixtures

| Description | Qty | Price | Extended |
| :---: | :---: | :---: | :---: |
| Lithonia Lighting / 2BLT2 TUWH PROR 33L ADP [XXX] | 6 | \$100.00 | \$600.00 |
| Troffers \& Panels/LED/Center Basket/Tunable White |  |  |  |
| Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U | 84 | \$100.00 | \$8,400.00 |
| Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver (1\%-100\% Dimming) |  |  |  |
| Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U | 158 | \$300.00 | \$47,400.00 |
| Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver |  |  |  |
|  |  |  | Total: \$56,400.00 |
| Labor |  |  |  |
| Description | Qty |  | Total Cost |
| Lithonia Lighting / 2BLT2 TUWH PROR 33L ADP [XXX] | 6 |  | \$0.00 |
| Troffers \& Panels/LED/Center Basket/Tunable White |  |  |  |
| Metalux / [XXX]-24RLN-LD5-45-UNV-L840-CD1-U | 84 |  | \$0.00 |
| Troffers \& Panels/LED/Center Basket/4000K/80 CRI/0-10V Dimming Driver (1\%-100\% Dimming) |  |  |  |
| Metalux / HBLED-LD5-24SE-W-120V-L840-[XXX]-CD2-MP-[XXX]-U | 158 |  | \$0.00 |
| Highbays \& Lowbays/LED/Linear/4000K/80 CRI/0-10V Dimming Driver |  |  |  |
|  |  |  | Total: \$0.00 |

## APPENDIX

Financial Assumptions

| Analysis Period (Years) | 10 |
| :--- | ---: |
| Payback Calculation Method | Cash Flow Payback |
| Cost of Capital | $6.00 \%$ |
| Average Cost of Electricity | $0.1000 \$ / \mathrm{kWh}$ |
| Annual Energy Inflation | $0.00 \%$ |
| Annual Material Inflation | $0.00 \%$ |
| Annual Service Inflation | $0.00 \%$ |
| Product Tax Rate | $0.00 \%$ |
| Service Tax Rate | $0.00 \%$ |

Schedules

| Schedule Name | Hours/Week | Hours/Year |
| :--- | :---: | ---: |
| Continuous (24x7) | 50 | 2,607 |
| Dusk to Dawn | 84 | 4,380 |
| EECOL Hours | 50 | 2,607 |
| Weekdays (9-6) | 45 | 2,346 |

## TERMS AND CONDITIONS

- EECOL RESERVES THE RIGHT TO ADJUST ITS PRICING FOR GOODS AFFECTED DIRECTLY OR INDIRECTLY BY CHANGING DUTIES/TARIFFS/TRADE AGREEMENTS AND SIGNIFICANT CURRENCY FLUCTUATIONS.
- UNLESS THERE ARE DIFFERENT OR ADDITIONAL TERMS AND CONDITIONS CONTAINED IN A MASTER AGREEMENT THAT MODIFY EECOL'S STANDARD TERMS, BUYER AGREES THAT THIS QUOTE AND ANY RESULTING PURCHASE ORDER WILL BE GOVERNED BY EECOL'S TERMS AND CONDITIONS AVAILABLE AT
HTTP://WWW.EECOL.COM/TERMS_AND_CONDITIONS_OF_SALE.PDF AS SUCH TERMS MAY BE UPDATED FROM TIME TO TIME, WHICH TERMS ARE INCORPORATED HEREIN BY REFERENCE AND MADE PART HEREOF. PLEASE CONTACT THE SELLER IDENTIFIED ON THIS QUOTE IF YOU REQUIRE A PRINTED COPY.

DUE TO UNFORESEEN RAW MATERIAL FLUCTUATIONS, UNLESS OTHERWISE STATED, THIS QUOTE IS VALID FOR A PERIOD OF 10 DAYS FROM SUBMISSION AND IS SUBJECT TO THE APPROVAL OF THE CREDIT MANAGER.

- Pricing excludes all applicable taxes.
- Due to frequently changing rebate programs, rebate estimates will need to verified post award of project
- Acceptance of this quote includes acceptance of all noted exceptions.
- Any change in proposed quantities or recommendations will require a revision to the quote.
- Quote excludes fixture mounting hardware. Existing mounting hardware will be used unless noted in this proposal.
- This quote excludes the upgrade of pre-existing conditions to meet current code requirements.
- Savings are estimates only and will vary dependent upon how the building is operated and occupied. Equipment age and condition can influence savings performance.


[^0]:    Cost of waiting includes energy savings and maintenance savings applied as an average annual amount over a 10 year analysis period

[^1]:    1. Energy Cost $=\$ 0.1000 / k W h ;$ Annual energy cost escalation $=0.00 \%$
    2. Energy costs are averaged over a 10-year analysis period
