



Dec 19, 2012

Corporate Services Committee
C/o The City of London
300 Dufferin Ave.
London, ON

RE: Reserve Expenditure

In October of this year, Covent Garden Market's Board of Directors asked for permission to replace the lighting in our underground parking and you approved a draw-down from our reserves. However on the recommendation of the City of London's Corporate Energy Management Department, we would like to increase the request from our original numbers to the following:

Capital Costs	\$ 80,000
Hydro energy rebate	<u>\$-13,000</u>
Total	\$ 67,000

This will allow a slightly different product but with increased savings and longer life of the product. It will reduce our current anticipated maintenance cost by \$56,000 over 5 years. Our payback is anticipated to be 2.2 years and we also anticipate a monthly reduction of \$2,500 in hydro costs.

The Board of Covent Garden Market and I thank you for your consideration

Yours truly,

Robert T. (Bob) Usher
General Manager, Covent Garden Market
Cc: Ron Earnshaw, Chair Board of Directors, CGM
Cc: Steven MacDonald, Corporate Energy Management City of London

Bob Usher

From: MacDonald, Steven [smacdonald@london.ca]
Sent: December 17, 2012 12:45 PM
To: Bob Usher
Cc: Rick walters
Subject: LED and Fluorescent Comparison

Hi Bob,

As discussed last week the electrical engineer who put together the documents for pricing sourced some pricing information on fluorescent and LED options. He looked at the following options: T5 high output fluorescents, an entry level LED and a premium LED. The contractors are currently pricing the project, however, it is expected that the that the installation cost will be approximately \$100 per fixture regardless of the technology and the fixtures will cost approximately \$100 per fluorescent, \$300 per entry level LED and \$600 per premium LED.

The premium LED, while offering a long fixture life rating (estimated 8.5 years) would come at a significant cost: \$115,000+ with a payback of more than five years. Fixtures with this type of estimated longevity will likely become more cost competitive in the future.

Due to the very significant initial cost of the premium LED option, the fluorescent and entry level LED were the options were given to the contractors for pricing. The estimates for these two options compare as described below.

The Covent Garden Market current spends approximately \$12,000 annually maintaining the existing light fixtures in the parking garage. Therefore it is expected that CGM would spend \$60,000 on maintenance over the next 5 years if this project does not proceed.

- Estimated annual maintenance costs (both technologies will be \$0.00 for the first year):
 - Fluorescent: \$6,000 for lamps and ballasts (starting year 2)
 - LED: \$1,000 per year (between year 2 and the end of year 5) based on \$0.00 on parts (5 year warranty) + labour on any fixtures that do fail – estimate max 5%/year. In year six the fixtures will be due for replacement again.
- Maintenance Savings over five years:
 - Fluorescent: \$36,000
 - LED: \$56,000
- Lamp life expectancy:
 - Existing: 10,000 hours
 - Fluorescent: 30,000 hours
 - LED: 50,000 hours
- Project Cost (without incentive):
 - Fluorescent \$42,000
 - LED \$80,000
- Incentive:
 - Fluorescent \$7,500
 - LED \$13,000
- Simple Payback:

- Fluorescent 1.9 years
- LED 2.2 years

- Simple payback with maintenance considered:
 - Fluorescent 1.2 years
 - LED 1.6 years

- Monthly Utility Savings:
 - Fluorescent \$1,500
 - LED \$2,500

The drawbacks of the entry level LED are the estimated project cost (almost double) and the fact that the fixture is new and is in the process of qualifying for the incentive program. The manufacturer is confident that the fixture will qualify in January. With maintenance savings taken into account, the feasibility of the LED replacement fixtures is significant. Considering the budget amount already set aside for this project, the incentive qualification and based on the numbers above – replacing the existing lights using fluorescent fixtures remains a good option. The fact that LED fixtures have an increasing life expectancy and continue to drop in price as the technology matures means that LED fixtures will likely represent the unquestioned option when the new fixtures (whichever ones are selected) reach the end of their expected service life.

Let me know if you have any questions.

Thanks,
Steve

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