

Release Notes for the Street and Parking Facility Lighting Retrofit Financial Analysis Tool

March 12, 2017

Version 1.2, dated 3/12/2017

For improved clarity, changed the wording of several variable labels or column headers on the Input Page:

- Changed “Finance Nominal Discount Rate” to “Nominal Discount Rate.”
- Changed “Lamp Watts (per unit)” to “Nominal Lamp Wattage (per unit).”
- Changed “System Watts (per unit)” to “Fixture Wattage (per unit).”
- Changed “Current Fixture Cost” to “Fixture Cost.” The word “Current” had been intended to modify “Cost,” rather than “Fixture.”

Other Input Page changes include:

- Updated default, national-level emissions factor to reflect latest EPA data. Updated associated hyperlink and comments.
- Added and updated several comments throughout the sheet.
- Updated links in the Tax, Electricity, and Labor Costs sections.
- Added two links in that section to provide assistance in obtaining sales tax rates and discount rates.
- Created default, national-level values for several of the variables. These values are included, by default, in the cells, and discussion of the values is included in associated comments. The variables with these newly-specified defaults include: annual change in electricity cost (%), annual change in vehicle rate (%), annual change in labor rate (%), and nominal discount rate (%).

On the Maintenance Page, corrected a comment in cell AT15. It had referred to the “Emergency Maintenance” section, which was previously renamed the “Unplanned Maintenance” section.

Updated the range C16:C73 on the Maintenance Page to autofill with “Specific Technology Names” entered by the user on the Input Page. Previously it had auto-filled with more generic, less useful names.

On both the Input and Maintenance pages, created frozen panes such that the Specific Technology Names column always remains visible while entering data in columns further to the right.

On the Results Summary sheet, added an “energy-only” simple payback output, in addition to the standard simple payback result. The difference between the two is that the former excludes maintenance cost savings.

On the Results Summary sheet, added a table providing “Average Annualized Savings per Fixture,” broken into energy and non-energy components. The results are provided both on a per-year and a per-month basis. These results may be particularly useful in determining the value offered by a utility per-fixture technology upgrade fee, in the case of utility-owned lighting.

Simplified some formulas on the Results Summary via greater use of range names.

Made minor corrections to some labels on the Finance Page.

Made minor edits to some definitions on the Definitions Page.

Version 1.1.01, dated 8/20/2013

Changed default selected values of two drop-down lists on the Maintenance Page from “User-entered” to “Input Page.”

In version of file including sample data, added the following note on the Intro sheet:

Sample data included in this file are for example only. They are not to be considered as default values.

Version 1.1, dated 7/31/2013

Updates included in ***Street and Parking Facility Lighting Retrofit Financial Analysis Tool, v1.1.xlsx***:

Changed the name of the tool to the “Street and Parking Facility Lighting Retrofit Financial Analysis Tool,” to reflect its applicability to parking structures and lots, as well as street lighting.

Added a comment on the Input Page cell for Installation Vehicle Rate, to explain that vehicles may include other equipment, such as scissor lifts. Noted that the comment applied to all vehicle-related fields in the tool. Also updated the associated definition on the Definitions page.

On the Maintenance Page and the Definitions Page, changed all instances of the term “Emergency” to “Unplanned.”

Fixed visibility of comment in cell AP14 (now BG15) on the Maintenance Page. Was previously mis-sized, making it unreadable.

Made four calculational sheets visible (although not editable), such that calculations are more transparent to users, if they desire to examine them.

On the Maintenance Page and the Definitions Page:

- Changed any instances of “Repair Labor Time” to “Replacement Time.”
- Changed any instances of “Repair Labor Cost” to “Replacement Labor and Vehicle Cost.”
- Changed, wherever else necessary, “Repair” to “Replacement”.
- Two subtotals columns on Maintenance Page (scheduled, unplanned) were changed from “Repair Cost” to “Maintenance Cost.”
- Updated/corrected other definitions as necessary.

Updated hyperlinks included on Input Page to direct to current documents (e.g. current CBO documents for inflation and employment cost data).

Updated default emissions factor on Input Page to reflect latest EPA eGRID data.

In comments in cells C26 and I26 on the Input Page, added greater clarification as to how to find/derive region-specific emissions coefficients.

Updated the calculations and labels in the “Statistics” section (cells D64:E68) of Finance Page to reference the analysis period set by the user on the Results Summary sheet. Previously the analysis period was fixed at 15 years on the Finance Page.

In versions of file with sample data, populated cells E24:G27, on the Finance Page, with data, in order to allow many other calculations on the sheet to display results that could be expected.

Added comments to cells C18:C20 and C24:C26 on the Results Summary sheet to clarify that the values provided are associated with full-implementation of a project. Given the possibility of multi-year projects, these are not necessarily first-year values.

In cell C14 on the Finance Page, changed the label “Other Grant, Stimulus” to “Other Grant.”

Added the following comment to the Input Page fields or columns containing the price escalators for labor rates, vehicle rates, and fixture costs: “In the case of single-year installations, a value for this escalator may be omitted. This escalator only applies to costs associated with the initial installation of equipment (and thus only has an impact in multi-year installations). Changes in costs associated with ongoing maintenance during the analysis period are handled via the Annual Change in Maint. Cost field.” Updated the corresponding definitions to reflect this information as well.

On the Input Page, edited a comment for the Annual Change in Maint. Cost column to indicate that absent specific information, a user might consider using the CBO's Consumer Price Index forecast in Table 2.1, available via a new link provided above the column header.

Added a comment on the Input Page column header for Current Fixture Cost, to explain why it can be valuable, although not necessary, to enter such costs for existing fixtures. The analysis treats the cost of the existing fixtures as “sunk” costs. However, the costs of the existing units are utilized, at the user’s option, on the Maintenance Page. These costs of existing fixtures may be omitted if the user is not going to utilize them via the Maintenance Page. However, in any case, costs for proposed new fixtures

are required. Any ongoing costs associated with replacing existing (or new) fixtures are handled via the maintenance functionality.

Enabled the existing dimmed output capabilities (located in cells I59:I116 and K59:K116) on the Input Page. Also made visible the associated definitions on the Definitions page.

Revised Intro sheet in several places. Among other things, it includes some new branding (added FEMP), provides a link to the April 2012 webinar, and reflects that the four calculational sheets are no longer hidden.

Added more controls sections on the Maintenance Page. Previously there was just one section for controls. Now the ability to handle up to three separate controls per fixture is provided. Impacted columns are V:AS, BN:CK, and also J, BE, and CS. Added a comment to the relevant portion of the Definitions Page to call attention to this added functionality.

Updated text throughout Definitions sheet to make references to lighting systems generic (and thus applicable to either street or parking lighting), rather than related specifically to street lighting.

On all sheets (other than the four calculational sheets), changed column header formatting for better readability (bottom-alignment, and, for columns containing numerical data, right-alignment).

Fixed other various miscellaneous formatting issues (inconsistency with bolding of column headers or labels, indentation, alignment, etc.) throughout the file.

Re-formatted all relevant numerical cells to use commas as thousands separators.

Investigated minor issue of Excel prompting for save at closure, even if nothing apparent had been changed since last save operation. Concluded that this is likely due to the use of “volatile” Excel functions, such as OFFSET(). For more information, see: <http://support.microsoft.com/kb/274500>.

Version 1.0, dated 1/30/2012

Initial version. File named ***MSSLC Retrofit Financial Analysis Tool, Version 1.0.xlsx***.