Life Cycle Cost Analysis (LCCA) User’s Guide

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1. Open LCCA Model .xlsm workbook and make sure workbook is displaying the ‘Enter Alternatives’ tab.
2. Enter the names of the various project alternatives in the green header cells in the upper table on this first tab.
3. Enter the initial costs, operations costs, rehabilitation costs, salvage value, and lifespan into this table for each alternative. **Note: Never try to change any data contained in gray-colored cells. These cells either automatically sum other table values, or their must remain as they are for the model to function correctly. Also note that changing the lifespan entries will automatically change the ‘Lifespan Least Common Multiple’ in row 14. This column simply calculates the lowest multiple common among all entered lifespans. Continue with the entry of the data.**
4. In the two green cells in the lower table enter the base year for the project and the expected discount rate.
5. The model will start out with space for two alternatives. In order to add more alternatives, click the ‘Add New Alternative’ button as many times as necessary to fill the analysis as needed.
6. If you accidentally add too many spaces for alternatives, or decide to scrap an alternative, click the ‘Delete Last Alternative’ button. **Note: This action only deletes the last alternative added (the column farthest to the right). If you wish to delete a different alternative simply copy and paste the information you want to keep into the left-most columns and then delete the extra columns using the ‘Delete Last Alternative’ button. A minimum of two alternatives is necessary in order for the model to function as a comparison tool, thus the ‘Delete Last Alternative’ button does not function when there are only two alternatives in the model.**
7. After entering all data in steps 2-5, click the ‘Generate Comparison’ button. This will run the model and calculate the present worth and annual costs for each alternative. Finally, this button will bring you to the ‘Ranking’ tab where the alternatives will be ranked from least to highest cost for both analysis methods.
8. View the ‘Visuals’ tab to see the chart showing the cumulative present worth of each alternative over the common lifespan. This can help with alternative comparison and will show at what point in time the alternatives become equivalent, if ever.

Making Changes

1. In order to change any data, go back to the ‘Enter Alternatives’ tab, make the necessary changes to the input tables, add or delete alternatives as needed (See steps 5 & 6), and then click the ‘Generate Comparison’ button again to perform another analysis. This can be done as many times as you wish.

Net Present Value, NPV = a standard measure in LCC (life cycle cost) analyses, used to determine and compare the cost effectiveness of proposed solutions

Equivalent Uniform Annual Cost, EUAC = the **cost** per year of owning and operating an asset over its entire lifespan.