

Next Button: Do not display until the Required Fields are entered (Energy Costs per Kwh & Time period in Years)

Customer Information & Project Information

Next

Add a green question mark icon next the heading with the following: "Email Address, Company Name, State/Territory and Country must be provided if you intend to email results"

Customer Information	
Name	<input type="text"/>
E-mail Address	<input type="text"/>
Phone Number	<input type="text"/>
Company	<input type="text"/>
Company Address	<input type="text"/>
State/Territory	<input type="text"/>
Country	<input type="text"/>
Zip Code	<input type="text"/>

Project Information	
Project Name	<input type="text"/>
Installation Type	<input type="radio"/> Existing <input type="radio"/> New
Application	<input type="text"/>
Choose Currency	<input type="text"/>
Energy Costs per Kwh*	<input type="text"/>

Change Name to Customer Name

Change Company to Company Name

Make a dropdown list by incorporating country names from *List of Countries.xlsx*

Change Zip Code to Postal Code

Make USD (\$) the default currency under Choose Currency

Change Energy Costs per Kwh to Energy Costs per kWh
Update field name on the top of pages 2 & 3

Change **Application** to **Industry** and update list to read:

Agriculture
Alternative Energy
Automotive
Cement & Glass
Chemical / Petrochem
Commercial / Construction
Food & Beverage
General Industrial
Government / Infrastructure
Liquid Natural Gas
Material Handling
Metals & Mining
Oil & Gas - Downstream
Oil & Gas - Midstream
Oil & Gas - Upstream
Pharmaceutical
Power Generation (Nuclear, Coal, etc.)
Pulp & Paper
Transportation
Utilities
Waste Water Treatment
Other

Change **Time period in Years** to **Time Period in Years**
Update field name on the top of pages 2 & 3

Add: (*) Required field

Existing Configuration

Next Button: Do not display until the Required Fields are entered

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Existing Configuration Appleton Configuration Alternative Proposal

Existing Configuration Summary

Energy Costs per Kwh \$.08

Change Total Fixture + Install Cost to Fixture Cost + Installation Cost

Total Fixture + Install Cost \$ 2

Cost to Relamp \$ 3 Per Fixture

How often do you relamp 7 Years

Change How often do you relamp to How Often Do You Relamp

Total Relamping Cost \$ 0

Total Ballast Cost \$ 3

Energy Used per Year 5.26 Kwhr/yr

Energy Cost \$ 2.52

Total Cost \$ 7.52

Change Totals for Existing-All fixtures to Total for All Existing Fixture Types

Fixture Type	Quantity	Cost	Percentage
Fixture Type 1	1	13.29%	
Fixture Type 2	3	39.88%	
Fixture Type 3	2.52	33.54%	
Other	1		

Change Fixture Maintenance to Maintenance Costs

Change Life to Lamp Life

Change Labor Rate to Maintenance Labor Rate

Change Energy Consumed to Energy Costs

Remove field entirely and add calculation to Maintenance Costs field

Change Run Time for one fixture to Run Time for One Fixture

Edit green question mark icon: "Zero if relamping. Otherwise enter cost for one new fixture of same lamp type plus additional costs such as mounting accessories."

Edit green question mark icon: "Zero if relamping. Otherwise enter labor costs if installing a new fixture of same lamp type."

See Lamp Type - Wattage - Lamp Life Lists.xlsx for cascading drop down lists which apply to Lamp Type, Wattage, Ballast Correction Factor and Lamp Life fields

Make the font of the table appearing embedded within the green question mark match other font

Remove red asterisk (*). Not a required field. Pre-populate field with "0", but the field should be editable by the user to enter other values.

Data entered in this field should be carried over to the corresponding Fixture Type in the Alternative proposal (if used).

"24" should be pre-populated in the field, but the field should be editable by the user to enter other values.

Existing Configuration continued..

Time to Relamp*	1	Hours ?
Lamp Cost \$*	1	Per Fixture ?
Lamp Disposal Cost \$*	1	Per Fixture ?
Ballast Cost \$*	1	Per Fixture ?
Ballast Disposal Cost \$*	1	Per Fixture ?
Time to Replace Ballast*	1	Hours ?
Ballast Changes*	1	Over 6 Years ?
Misc. Maintenance Cost \$*	1	Per Fixture ?
Incentive/Rebate \$*	1	Total Refund (Lump Sum) ?

Other \$	1	13.29%
6 Year Total Costs \$	7.52	

Add: (*) Required field

Remove red asterisk (*). Not a required field.

Edit green question mark icon: " Must be entered as a positive number. Enter any incentive offers or rebates you anticipate receiving for the investment as a lump sum. For example, if the incentive is based on the amount of energy saved, enter the projected lump sum amount that will be received. This amount will be deducted from the cost of the initial investment which is calculated as the fixture cost multiplied by the quantity. "

Appleton Configuration

Next Button: Do not display until the Required Fields are entered

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Existing Configuration

Appleton Configuration

Alternative

Change **Total Fixture + Install Cost** to **Fixture Cost + Installation Cost**

Make all results fields whole numbers. Remove decimals.

Appleton Proposal Data Over Period

Energy Costs per Kwh \$

Time period in Years

6

Fixture Type 1

Fixture Type 2

Fixture Type 3

Fixture Type 4

Appleton LED Series

Select fixture series

Series Part Number

AMLGL6

HID Equivalent

Add a **green question mark icon**: "Select according to Series Part Number or HID Equivalent"

Add the following drop down list:

200,000
120,000
100,000
90,000
60,000
Other

If Other is selected, User can enter alternate data

Change **Life** to **Luminaire Life**

Edit **green question mark icon**: "Enter labor and any additional installation cost"

Change **Fixture Maintenance** to **Maintenance Costs**

Change **Energy Consumed** to **Energy Costs**

Change **Totals for Appleton-All fixtures** to **Total for All Appleton Fixture Types**

Remove field entirely and add calculation to **Maintenance Costs** field

6 Year Total Costs \$

Make the font of the table appearing embedded within the green question mark match other font

Remove field entirely. Also, remove from any associated calculations.

Change **Hours** to **Hours (Based on Ambient Temperature)**

Appleton Configuration continued..

Driver Cost \$*	Remove field entirely. Also, remove from any associated calculations.
Driver Disposal Cost \$*	Remove field entirely. Also, remove from any associated calculations.
Time to Replace Driver*	Remove field entirely. Also, remove from any associated calculations.
Driver Changes*	Updated calculations and output based on <i>Driver Changes calculations.xlsx</i> . Output should be not be editable by the user, similar to Energy Costs per kWh & Time Period in Years fields
Misc. Maintenance Costs \$*	
Incentive/Rebate \$*	
	Total Refund (Lump Sum) ?

Add: (*) Required field

Remove red asterisk (*). Not a required field.

Edit green question mark icon: " Must be entered as a positive number. Enter any incentive offers or rebates you anticipate receiving for the investment as a lump sum. For example, if the incentive is based on the amount of energy saved, enter the projected lump sum amount that will be received. This amount will be deducted from the cost of the initial investment which is calculated as the fixture cost multiplied by the quantity. "

Alternative Proposal

Can this tab be programmed to be hidden entirely? User can hit a "+" or "Expand to Add Alternative Proposal"?

Make all results fields whole numbers. Remove decimals.

Change **Total Fixture + Install Cost** to **Fixture Cost + Installation Cost**

Existing Configuration Summary

Energy Costs per Kwh \$.08

Total Fixture + Install Cost \$ 2

Time period in Years 6

Cost to Relamp \$ 3 Per Fixture

Change **How often do you relamp** to **How Often Do You Relamp**

2.74 Years

Total Relamping Cost \$ 3.57

Total Ballast Cost \$ 3

Energy Used per Year 0.37 Kwhr/yr

Energy Cost \$ 0.18

Total Cost \$ 8.75

Lamp Type Select lamp

Wattage* 1 Watts

See *Lamp Type - Wattage - Lamp Life Lists.xlsx* for cascading drop down lists which apply to Lamp Type, Wattage, Ballast Correction Factor and Lamp Life fields

Ballast Correction Factor*

System Wattage

Quantity* 1

Fixture Cost \$* 1 Per Fixture

Installation Cost \$*

Run Time for one fixture* 1 Hours Per Day

Change **Life** to **Lamp or Luminaire Life**

Change **Labor Rate** to **Maintenance Labor Rate**

Change **Fixture Maintenance** to **Maintenance Costs**

Change **Energy Consumed** to **Energy Costs**

Change **Totals for Alternative Proposal-All fixtures** to **Total for All Alternative Fixture Types**

Initial Net Investment \$ 0 0

0

0

Other \$

Remove field entirely and add calculation to **Maintenance Costs** field

Edit **green question mark icon**: "Enter the full labor rate for a team of electricians to relamp one fixture. For example, if it takes two people to relamp a fixture, with one earning \$50/hour and the other earning \$100/hour, enter 150 (\$150/hour)."

Make the font of the table appearing embedded within the green question mark match other font

Data carried over from each corresponding Fixture Type in the Existing Configuration

Alternative Proposal continued..

Remove red asterisk (*) for each field below.
Not a required field.

Time to Relamp*	1	Hours ?
Lamp Cost \$*	1	Per Fixture ?
Lamp Disposal Cost \$*	1	Per Fixture ?
Ballast Cost \$*	1	Per Fixture ?
Ballast Disposal Cost \$*	1	Per Fixture ?
Time to Replace Ballast*	1	Hours ?
Ballast Changes*	1	Over 6 Years ?
Misc. Maintenance Cost \$*	1	Per Fixture ?
Incentive/Rebate \$*	1	Total Refund (Lump Sum) ?

6 Year Total Costs \$	0
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Add: (*) Required field

Edit **green question mark icon**: " Must be entered as a positive number. Enter any incentive offers or rebates you anticipate receiving for the investment as a lump sum. For example, if the incentive is based on the amount of energy saved, enter the projected lump sum amount that will be received. This amount will be deducted from the cost of the initial investment which is calculated as the fixture cost multiplied by the quantity. "

Savings

Add: "Percentage of Total Cost" heading

Make percentage fields whole numbers.
Remove decimals.

Make results fields whole numbers.
Remove decimals.

Add a **green question mark icon**: "Includes Incentive/Rebate"

Change Existing to Existing Lighting System

Change Appleton to Appleton LED Proposal

Alternative Proposal

Initial Net Investment

USD (\$) 9,750.00

4.31%

USD (\$) 0.00

0.00%

USD (\$) 0.00

0.00%

Change Fixture Maintenance to Maintenance Costs

USD (\$) 33,612.40

14.87%

USD (\$) 0.00

0.00%

Can the Alternative Proposal results fields and chart heading be hidden if the tab is not used?

Change Energy Consumed to Energy Costs

USD (\$) 169,243.20

74.89%

USD (\$) 0.00

0.00%

USD (\$) 0.00

0.00%

Other

Remove **Other** fields entirely since the calculations are now added to Maintenance Costs on previous screens/tabs

0.00%

USD (\$) 0.00

0.00%

6 Year Total Costs

USD (\$) 225,980.60

Update calculation to include Initial Net Investment, so output is calculated as Existing Lighting System _ Year Total Costs - Appleton LED Proposal _ Year Total Costs

Update calculation to include Initial Net Investment, so output is calculated as Existing Lighting System _ Year Total Costs - Alternative Proposal _ Year Total Costs

Change Savings over Existing (Excluding Initial Investment) to Total Savings

Average Yearly Savings

USD (\$) 36,038.43

USD (\$) 36,038.43

Add Heading: **Initial Net Investment** after Total Savings - restate field appearing above

Payback Period (years)*

NA

NA

Add Heading: **Return on Investment (ROI)** after Initial Net Investment

Add a **green question mark icon**: "Initial Net Investment / Average Yearly Savings"

Calculated as: Total Savings / Initial Investment
Results should be displayed as a whole number percentage
Ex: $108,235 / 80,000 = 1.35$ or **135%**

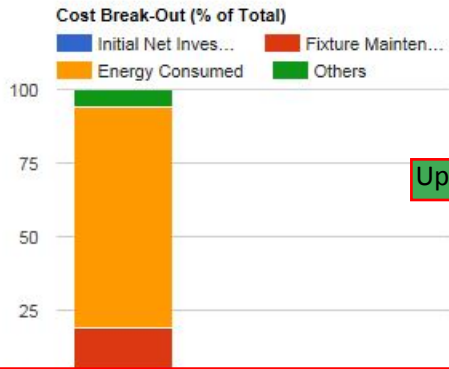
Change **Payback Period (years)*** to **Payback Period (Years)**

Add a **green question mark icon**: "Total Savings / Initial Net Investment"

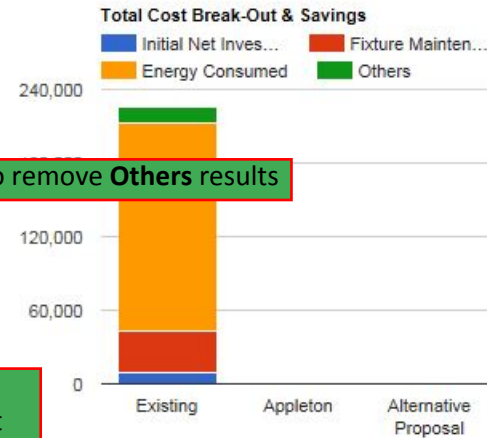
Average Yearly Savings: update calculation to include Initial Net Investment, so output is calculated at Total Savings/Time Period in Years

To summarize, fields will be organized as follows:
Total Savings
Initial Net Investment
Return on Investment (ROI)
Average Yearly Savings
Payback Period (Years)

Savings continued..



Update chart to remove Others results



Email

Print

Add Heading/Box: **Reduction of kWh:**
Display figure used to calculate other headings in Environmental Impact

Add a **green question mark icon**: "Calculated by Upgrading to Appleton LED Lighting"

Add a **green question mark icon**: "Based on U.S. Environmental Protection Agency (EPA) Greenhouse Gas Equivalencies Calculator"

Reduction of carbon dioxide emissions: 209.86 Metric Tons
462662 Pounds

Change **Household electricity usage for one year** to **Electricity Saved (Average Household Usage for One Year):**

Change **Acres of U.S. forest storing carbon for one year** to **Acres of Trees Planted:**

Round up output to whole number

Reduction of coal emissions: 104.15 Metric Tons
229606 Pounds

Change **Fewer miles driven by an average passenger vehicle** to **Fewer Miles Driven (By Average Passenger Vehicle):**

Round up output to whole number

All results should be positive numbers and use a comma in the thousandths place.

Capitalize all key words, such as "Reduction of Carbon Dioxide Emissions:"

To summarize, fields will be organized as follows:

Reduction of kWh:

Reduction of Carbon Dioxide Emissions:

Reduction of Coal Emissions:

Electricity Saved (Average Household Usage for One Year):

Acres of Trees Planted:

Fewer Miles Driven (By Average Passenger Vehicle):