

**WORKSHEETS TO ESTIMATE ANNUAL SAVINGS FROM AN INVESTMENT IN ENERGY SAVING TECHNOLOGY**

CAUTION: The user must accept responsibility for the results generated from this spreadsheet and decisions based thereon.

There are two worksheets. This first one is used to estimate the annual ownership or fixed costs associated with the investment made in energy using technology, both in the current system (if any) and in the proposed new technology. These costs include depreciation, interest on investment, property tax, and insurance.

The second worksheet is used to estimate operating costs, ownership costs and revenue, if any, for both systems. The difference in total costs, net of any grants, subsidies, revenue, etc, represents the estimated cost savings or cost increase from adopting the proposed technology

Enter your data in the yellow highlighted cells

**Annual Ownership Cost Worksheet**

The appropriate investment "cost" for the existing system may include the current market value and any new investment in the current system that must be modified or replaced for it to be fully operational. Therefore, an existing fully operational system with no sale value will have a zero investment for the purposes of this comparison. The original investment in the current system is not relevant because it is a "sunk" or unrecoverable cost.

For the proposed new investment in energy saving technology, including installation, show the estimated total cost net of any grants or other subsidies. If you contribute to the installation, include the value you place on your own time.

	EXISTING SYSTEM	ALTERNATIVE SYSTEM
Name of item, e.g. plate cooler		
1. Investment cost, net of grants, subsidies, etc.,	\$0	\$0
2. Salvage value		\$0
3. Line 1 - line 2	\$0	\$0
4. Useful life, in years		0
5. Annual depreciation charge, line 3 / line 4	\$0	\$0
6. Average investment, [Line 1 + line 2] / 2	\$0	\$0
7. Interest rate or charge, as decimal (E.g., 8% = 0.08)		0
8. Annual interest cost or charge, line 6 X line 7	\$0	\$0
9. Property tax rate, per \$1000 of value, as decimal		0
10. Annual property tax, [Line 6 / 1000] X line 9	\$0	\$0
11. Insurance premium rate per \$100, as decimal		0
12. Annual insurance cost, [Line 6 / 100] X line 11	\$0	\$0
13. Total annual ownership cost (DITI), add lines 5, 8, 10, & 12. This total transfers over to the budget worksheet	\$0	\$0

# NC STATE UNIVERSITY

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INSERT YOUR DATA IN THE YELLOW HIGHLIGHTED CELLS

<b>A. Current System:</b>	
Purpose (e.g., milk cooling)	
Type of equipment (e.g, bulk tank)	
Description	
<b>1. Type of energy (electricity, diesel)</b>	
Current use and cost:	
Units (e.g., kWh, gallons)	
Amount used per year	
Cost per unit	
Total cost per year	\$0.00
<b>2. Projected use and cost:</b>	
Amount used	
Cost per unit	
Projected energy cost per year	\$0.00
Repairs and maintenance	
Labor	
Other	
Projected total cost per year	\$0.00
<b>4. Annual ownership cost (DITI),</b>	
from Annual Ownership Cost Worksheet (see note)	\$0.00
<b>5. Projected total cost of current system</b>	
	\$0.00
<b>B. Proposed New Technology:</b>	
Type of energy (e.g., electric, solar, diesel)	
Type of equipment (e.g, plate cooler)	
Description	
<b>6. Annual operating cost</b>	
Units (e.g., kWh, gallons, BTU)	
Estimated amount used per year	
Cost per unit	
Estimated energy cost per year	\$0.00
Repairs and maintenance	
Labor	
Other	
Total operating cost	\$0.00
<b>7. Annual ownership cost</b>	
Annual DITI, from Annual Ownership Cost Worksheet	\$0.00
<b>8. Operating revenue (electricity sales, value of oilseed meal)</b>	
<b>9. Total cost, net of revenue, grants, subsidies, etc.</b>	
	\$0.00
<b>10. Annual savings or cost (negative) from the proposed change</b>	
	\$0.00