CFL VS. INCANDESCENT:
CONSUMPTION, LIFETIMES, & COSTS

1. Figure Lifetime Electrical Consumption
   • First learn the lamp’s lifetime. Multiply it by wattage/1000 to reach the lamp’s lifetime electrical consumption in kWh.
   • The formula: Lifetime x wattage/1000 = lifetime consumption in kWh

2. Calculate Lifetime Cost
   • Next figure lifetime cost by multiplying the energy consumption by the rate, then adding this to the lamp’s initial cost.
   • The formula is: (lifetime energy consumption x electric rate) + cost of lamp

3. Don’t Stop at Lifetime Cost!
   • If you stop calculating at the lifetime cost you’ll think the CFL is still way more expensive!
   • Comparing lifetimes is like comparing apples and oranges, since the amounts are so different (remember - 10,000 hours for the CFL vs. 1,000 for the incandescent)!

4. The Right Stuff: Hourly Cost
   • So, in order to make a comparison, you can figure the actual cost per hour to operate each lamp.
   • Then you are asking each lamp to do the same amount of work for the same time period.

5. Hourly Cost = Actual Cost
   • Add the cost of the lamp plus its lifetime cost. Divide this by the lamp’s lifetime in hours.
   • This will give you the actual hourly cost.
   • Here’s the formula: hourly cost = lifetime cost / lifetime in hours

Example: Which Lamp Costs More Per Hour to Use?

13 W CFL
- 10,000 hr. lifetime
- $5 lamp cost
- 130 kWh lifetime consumption
- 20.60 lifetime cost
- $20.60/10,000 hrs = $.002/hr (rounded)

75 W Incandescent
- 1,000 hr. lifetime
- $0.62 lamp cost
- 75 kWh lifetime consumption
- $9.62 lifetime cost
- $9.62/1000 hours = $.010/hr (rounded)