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**LEDs Part 2**

Although high efficiency light bulbs are significantly more expensive than traditional incandescent bulbs, the additional cost can typically be recovered quickly. Whether you choose LED (light emitting diode) bulbs or CFL (compact fluorescent lamp) bulbs, the payback period for a 60-watt equivalent bulb used 4 hours per day is a little over one year. After that, you'll be saving an average of about $7.00 per year for each incandescent bulb you replace with an LED or CFL.

However, money is not the only savings. The energy savings are also significant, especially when considering the impact at the community level.

Madison Gas and Electric reports that they provide electricity to 140,000 residential users in Dane County. Assume that each of the 140,000 residential users replaces one incandescent bulb used an average of four hours per day with an equivalent LED bulb. The energy saved would provide all the electricity needs for how many Dane County homes?

- a) 389
- b) 712
- c) 957
- d) 1211

Answer: d) 1211 homes. Replacing one bulb in 140,000 homes would save an estimated 851,200 kilowatts (KWH) per month. According to the U.S. Energy Administration, Wisconsin residential users consume an average of 703 KWH per month.

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