2B Test Your Energy IQ - Key

1. Which of the following accounts for nearly half of the nation’s energy use?
   A. Cars, trucks, and other transportation sources.
   B. Commercial and industrial buildings.
   C. Home electronics.
   D. Cell phones.

   Commercial and industrial buildings account for half of our nation’s energy use at a cost of $200 billion each year.

   According to the Department of Energy, commercial buildings are responsible for 18% of our nation’s energy consumption and industrial facilities use 32%, totaling 50% of our nation’s energy use. In comparison, transportation sources account for 28% of national energy use and residential sources account for 22%.

2. Commercial buildings that have earned the ENERGY STAR consume, on average, what percent less energy than typical buildings?
   A. 10 percent.
   B. 25 percent.
   C. 35 percent.
   D. 60 percent.

   ENERGY STAR qualified buildings use 35% less energy than average buildings and generally combine energy-efficient systems, improvements, and equipment to deliver superior energy performance. These buildings not only use 35% less energy than their counterparts, they also contribute one-third less carbon dioxide to the environment.

3. A cell phone power adapter that is plugged into an outlet only uses electricity when the cell phone is connected to it.
   True
   False

   Adapters plugged into outlets use energy even if they are not charging. Make sure you unplug not only the cell phone but also the adapter once the phone is charged.

   External power adapters are crucial to the operation of virtually all small electronic devices. As many as 1.5 billion are in use in the U.S. - that’s about five for every person.
4. Buildings do not have to be new to be energy efficient. In fact, one of the oldest buildings that has earned EPA’s ENERGY STAR was built in:

A. 1798
B. 1820
C. 1904
D. 1938

The Cambridge Savings Bank in Cambridge, Massachusetts, was built in 1820.

Thousands of buildings and manufacturing plants - both old and new - have earned EPA’s ENERGY STAR for superior energy efficiency. EPA has found that neither age nor the presence of new technologies alone determines a building’s energy performance.

5. Regular examinations of your building’s equipment, systems, and maintenance procedures by management can save 6 - 20% in utility costs.

True
False

Giving your building a tune-up regularly can ensure that your building is operating as efficiently as possible, which saves energy and decreases your building’s carbon footprint.

A few examples are:
Tune up HVAC equipment.
Inspect ducts and windows, and seal any leaks.
Calibrate thermostats and set them at appropriate temperatures.
Insulate hot water tanks and pipes throughout the building.
Inspect and clean/change air filters.

6. What percent of electricity used in an office building is consumed by lighting?

A. 5 percent.
B. 15 percent.
C. 25 percent
D. 35 percent.

Lighting is the largest cost component of a commercial building’s electricity bill and a significant portion of the total energy bill.

With good design, energy use from lighting in most buildings can be cut in half while maintaining or improving lighting quality. Upgrading lighting systems with efficient light sources, fixtures, and controls can reduce lighting energy use, improve the visual environment, and affect the sizing of HVAC and electrical systems.