

Introduction to Energy and Its Management



In school, your child learned about how we use energy. When electricity is factored in, the residential and commercial sectors of the economy (homes and businesses) use the most energy.

Energy efficiency is related to the equipment we select to do a certain job. For example, a 4-door sedan and pickup truck will both carry us to the store, but the sedan will probably do so using less fuel. It is more efficient. Using efficient appliances, electronics, and lighting can help reduce energy use and cost at home, while still performing the same tasks.

Energy conservation is related to the behavior of those using the equipment. For example, even the most efficient refrigerator wastes energy when the door is left open unnecessarily. Conserving behaviors do not cost any money to implement, and they can help significantly reduce the amount of money your household spends on energy.

How Does Your Household Rate?

As a household, determine which answer to each statement – either column 1, 2, 3, or 4 – best matches the situation in your home. Shade in the box that corresponds to the best match. Calculate your home’s initial energy consumption score.

Energy Efficiency and Conservation at Home	4	3	2	1
Appliances That Are ENERGY STAR® Rated	All	More than ½	About ½	None
Lights That Are CFL Or LED	All	Most	About ½	Almost none or none
Electronics With Phantom Loads (Drawing Power When Turned Off)	None (unplugged)	About ½	Most	All
Thermostat Setting During Heating Season	68 or lower	69-70	71-72	73 or higher
Thermostat Setting During Cooling Season	78 or higher	76-77	74-75	72 or lower
Laundry Loads Run Less Than Full	None	Less than ½	About ½	Most
Dishwasher Run Less Than Full	Never	Occasionally	About ½ the time	Usually
Hot Water Setting (°F)	120 or less	121-130	131-140	140 +
Doors And Windows Closed When Furnace Or Air Conditioner Turned On	Always	Usually	Sometimes	Rarely
Lights Left On When Room Is Empty	Rarely	Sometimes	About ½	Usually
Fans Left On Overnight	0	1-2	3-4	5+
TVs Left On Overnight	0	1	2	3+
Game Console Or Computer Left Running	Never	Rarely	Occasionally	Frequently
Heating System Turned On When...	Temperature inside < 65	Temperature outside < 65	Temperature outside < 70	A/C not turned on
Cooling System Turned On When...	Temperature inside > 83 or Not Turned On/In Use	Temperature outside > 83	Temperature outside > 80	Heat not turned on
Programmable Thermostat	Yes			No
Calculate Your Score – Total Boxes Shaded				
× score per box shaded	×4	×3	×2	×1
Column Score				
Total Score (add 4 column scores above)				Initial Energy Consumption Score

How Does Your Household Rate?

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Discussion

1. A perfect household score is 64. What was your score? _____.
2. Discuss as a group the choices you can make now to improve your household's score based on your answers on the chart. Which changes would have the largest impact on your score? Which changes do you think would save the most energy?

3. Of the changes you listed in question 2 above, identify which are energy efficiency choices and which are energy conservation choices by filling in the chart below.

EFFICIENCY CHOICES	CONSERVATION CHOICES