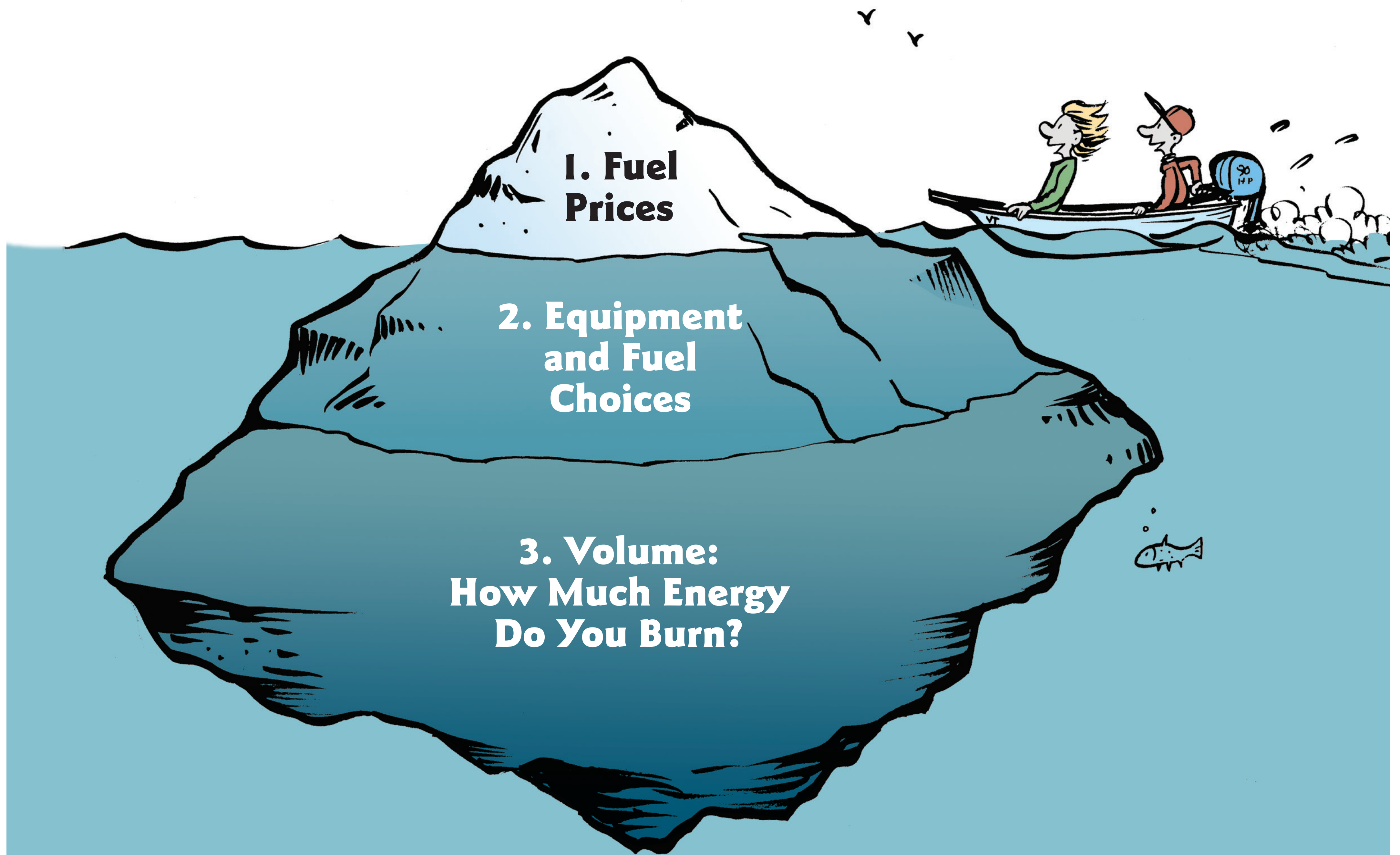


# The Energy Iceberg



**1. Fuel Prices** As consumers we typically think of “fuel prices” or “current” prices (eg, “cost per gallon” or “cost per kwh”), or compare what something may cost today with its price in the past. Also most consumers look to compare between different fuel choices, and their prices, for ways to lower the cost of operation of our homes, particularly for space heating and hot water production. ***Although fuel price is important, it is not sufficient for making long term energy decisions.***

**2. Equipment & Fuel Choices** Many members understand that some equipment is better than other equipment. Today we have the Energy Star label to guide us in making purchase decisions for equipment which uses electricity or fuel to operate. Typically an Energy Star rated appliance uses 10% – 20% less energy than a non-Energy Star rated unit.

**3. Volume: How Much Energy Do You Burn?** ***This is the main question***, whether it’s gallons or cords. Today’s high performance, low energy building begins with low energy design, and is then constructed and tested to performance standards.

Today’s new homes meet building energy standards or codes; much like appliances need to meet energy standards. We think of a building’s performance in terms of how much total energy is consumed to keep occupants comfortable and healthy—a high performance building is a low energy user. While most of us do not live in a new home, the same performance standards can be used to gauge how our home performs today. Once you measure and understand how your home’s energy use compares to today’s best practice, then we can begin to remedy the causes of average or higher home energy use.

Since most of us do not live in a new house, built to today’s high performance standards, the issue for the rest of us is (1) how to understand what makes up a home’s energy “performance” (2) where does our home fall on a scale of performance (3) how to diagnose the condition of our homes to determine where and how much energy is wasted, and (4) what are the building systems which then make it possible to achieve a high performance/low energy home?

As a general rule, for our existing houses first we apply energy conservation (use less energy), then we seek efficiency in equipment, and ultimately we choose to displace non-renewable fuels with renewable sources of energy.