

## True and False Quiz

Take this Quick True and False Quiz and check out the correct answers to start learning about clean (and dirty) energy sources:

1. We need an energy source to make anything work. This means without energy we would not have lights or machines work. Without energy, we could not make a car, plane, train or anything else move. Without energy we couldn't keep a building warm. Without energy, we would not be able to make anything.  
TRUE or FALSE?
2. The only source of energy to do everything is gasoline.  
TRUE or FALSE?
3. Most of the energy we use in our country today comes from burning fossil fuels—ancient remains of sea and plant life buried underground for millions of years.  
TRUE or FALSE?
4. There's so much oil under the ground, we can keep increasing our use of it over time just as we've been doing for at least the next 100 years.  
TRUE or FALSE?
5. Massachusetts has to import all of its fossil fuels used to generate electricity.  
TRUE or FALSE?
6. Coal mining is an almost invisible operation since the mining is usually deep underground.  
TRUE or FALSE?
7. It is possible for an individual or family to make choices that can prevent tons of carbon dioxide (a major contributor to global warming) from going into the air each year.  
TRUE or FALSE?
8. The biggest source of ozone pollution in our country is from the smokestacks of factories.  
TRUE or FALSE?
9. Water vapor in the air can trap heat.  
TRUE or FALSE?



Answers on back side

This quiz is part of the self-paced Clean Green Power Program. Complete simple warm up activities such as this quiz; interview a clean energy user, and then create your own project to spread the word about renewable energy and energy conservation. Visit [www.nesea.org](http://www.nesea.org), click on K-12 Education and link to Clean Energy for a Clean Environment for more information, or call 413-774-6051.

# Clean Energy for a Clean Environment

## Answer Key—True and False Quiz

1. True. Read on!
2. False. Energy might come from many sources. Some other examples include: moving water, wind, burning coal, burning wood, splitting atoms, the earth's heat, the sun, and your own muscles.
3. True. Coal comes from ancient plants that were around at the time of the dinosaurs, and petroleum which contains natural gas, propane, gasoline, jet fuel, oil and other fuels we use comes from the remains of ancient sea life.
4. False. While we do have a lot of coal in the US, and there are other fossil fuels available, easily accessible oil could run out if our demand continues to grow and we do not seek alternatives. Fossil fuels are non-renewable energy sources.
5. True. The good news is that Massachusetts can get its own clean energy from a variety of sources, such as solar, biomass and geothermal. We also have wind, and the proposed wind farm off of Cape Cod would be the first offshore in the whole US.
6. False. It is often surface mined, which may mean mountain top removal and extensive disruption to the local environment. This site ([www.digistar.mb.ca/minsci/surf/strip.htm](http://www.digistar.mb.ca/minsci/surf/strip.htm)) explains forms of surface mining and offers diagrams, or take a look at this Public Broadcasting Station site for some pictures and an insight into the controversies surrounding surface mining and mountaintop removal. [www.pbs.org/independentlens/razingappalachia/mtop.html](http://www.pbs.org/independentlens/razingappalachia/mtop.html)
7. True. Today, U.S. individuals put an average of about 22 tons of carbon dioxide into the air per year, while the worldwide average is 6 tons per person per year. A ton is 2000 pounds, about the weight of a car. The good news is that we can help save a lot of carbon dioxide from getting into the air. A car that gets better gas mileage could save tons compared to a gas guzzler. Just carpooling for 2 regular trips a week can save about 1500 lbs per year; recycling can save 850 lbs per year. Planting trees saves 50 lbs per tree since they use carbon dioxide for photosynthesis. Buying things in bulk and reusable containers can save 230 lbs per year. That's just a start! There's a lot more that can be done. This information is from the U.S. Environmental Protection Agency. [http://yosemite.epa.gov/oar/globalwarming.nsf/UniqueKeyLookup/SHSU5BPKVH/\\$File/climatesmarttips.pdf](http://yosemite.epa.gov/oar/globalwarming.nsf/UniqueKeyLookup/SHSU5BPKVH/$File/climatesmarttips.pdf)
8. False. Its from the tailpipes of cars, trucks, and SUVs [www.nasa.gov/missions/earth/f-ozone.html](http://www.nasa.gov/missions/earth/f-ozone.html)
9. True. Water vapor is a greenhouse gas as is carbon dioxide. Some scientists have suggested that when we put extra carbon dioxide into the air from burning fuels, not only does it cause warming, but so does the increased water in the air from evaporation. Interactions in nature can be complex! Learn more about climate change from scientists at <http://www.realclimate.org/index.php/archives/2007/05/start-here/>

YOUR QUIZ SCORE: Stellar!

Have fun as you explore the web, interview, make your project and spread the word.

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