

# Change Your Light Bulbs...



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SAVING ENERGY IS CON\$ERVING GREEN

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Rising global energy demands are placing a strain on already stretched resources. As the supply struggles to catch up to the needs of a growing world, our own concept of consumption is changing, in the grocery store, at the mall, and especially at the gas pump. As living expenses rise, informed authorities are touting energy conservation as an immediate source of relief.

## The World Needs Energy

In the new millennium, the global dynamic is changing. During the recent past, countries like India and China had once garnered little more than third world status; now these nations, along with a host of others, are industrializing. That means the already precious resources of oil, coal, and natural gas must be stretched thinner than they already are. But what does this mean exactly, for the average citizen of a post-industrial nation like the United States? Basic principles of economics state that since supply isn't increasing fast enough to meet demand: we're going to feel the pinch in our wallets. A quick trip to the gas station might remind you that we already are; the prices of everyday goods like gas and groceries are going up, and going up fast. A pragmatic thinker might ask, "If supply is the problem, then wouldn't drilling for new oil wells or planting more crops fix the situation?" Unfortunately, as with most problems, the solution does not come so easily. The world energy situation is a complicated one, and just increasing one source of energy – oil for instance– won't solve our problems.

## The Energy Supply

One major issue facing energy suppliers is that the bulk of their products, around 80 percent, come from non-renewable sources (ExxonMobil 19). This means that over a long enough time line, these sources will eventually run out. There are conflicting opinions as to when that will be, but one thing is for sure: the increasing demands from emerging nations will cause it to happen sooner than later. According to Chevron, "even if the use of renewables doubles or triples over the next 25 years, the world is likely to still depend on fossil fuels for about 85 percent of its energy needs" (1). At this rate, barring a technological breakthrough and complete switch to renewable sources, the question of running out of energy has become a "when," rather than an "if."

## What Can We Do About It?

Assuming total reliance on non-fossil fuels is possible, one method that would give us a chance at making it to that point could be energy conservation. According to the ExxonMobil report cited earlier, North America had the highest demand per capita in 2005 – accounting for about 60 percent of global electricity use despite having less than 20 percent of the world's population (6). In the United States, we use a *lot* of energy and enjoy a high standard of living because of it; however, the fact is we don't need to let that standard suffer in order to decrease our consumption. Additionally, becoming conscious about conserving energy, or “going green,” may even save us money in both the short-term and long run. Unfortunately, there are so many options available that consumers may become overwhelmed rather quickly. In order to keep it simple, the focus of this report will be on easy, effective choices that people can make to get more for their energy dollar.

## What Choices Make Sense?

As a starting point, one place where you can make significant improvements is your home. The simplicity of changing a light bulb has been immortalized in countless jokes, and not surprisingly, it's a great place to start; lighting can consume almost 15 percent of a home's energy according to the U.S.

Department of Energy. They also suggest that use of compact fluorescent lighting can reduce lighting energy use in homes by 50%–75% (1). If that isn't enough incentive to switch, CFLs also last up to four times longer than a standard bulb.

Making sure your home is air-sealed correctly can also make significant improvements to not only heating/cooling efficiency (a major source of home energy use), but also to inside air quality and home durability. Fixing an air leak is as simple as applying caulk or weather stripping to an offending leak. This



method is simple and cost-effective, but to make even greater strides in heating/cooling efficiency you may want to consider improving or replacing existing insulation. For those who are feeling a little more adventurous (and not as cost conscious), there is the option of replace your current electronics and appliances with Energy Star rated versions. This is another significant source of savings because appliance and home electronics use consumes about 20 percent of a home's electricity (U.S. D.o.E. 1). Savings depend on the item replaced, and because of the costs involved, it may take a while to see a return on investment. There are other promising options to draw less energy from the grid, or even generate your own clean electricity (through solar cells or wind turbines), but cost and efficiency issues prevent widespread interest.

A second, but no less important candidate for energy conservation is our transportation. The vehicles we drive are very obvious in their energy consumption; we even have a little meter that tells us how much we have left before we have to fill it back up again. Energy prices are causing us to focus more and more on that little meter, so it's important to know how to make your vehicle as efficient as possible. As with our homes, there are simple methods available to increase your miles per gallon. Perhaps the most simple option, carpooling is also the most energy efficient. Whether your car is gas or hybrid, the more people you take on as passengers, the fewer there are driving their own vehicles. The shared cost savings can be exponentially greater than driving solo. In our society, this isn't always feasible, or desired, and it's important to look at options attractive to everyone. Driving more efficiently is one way to improve your fuel conservation from 5 to 33 percent according to FuelEconomy.Gov. In regards to speed, they state "You can assume that each 5 mph you drive



over 60 mph is like paying an additional \$0.30 per gallon for gas.” Removing excess weight and keeping tire pressure at recommended levels are also vehicle efficiency boosters that come at virtually no cost. If you’re shopping for a new vehicle, consider your options; [www.FuelEconomy.Gov](http://www.FuelEconomy.Gov) has some great free resources for comparing car and truck gas efficiency. With the finite resources available to us, the cost of gasoline, as well as other fuels, is sure to increase over time – responsible choices in choosing a vehicle are as important as those you make while driving it.

### To Save, or Not...



The future energy situation is uncertain, and the choices we make today will affect how well we are prepared to deal with the possibilities of the future. While it is evident that current trends don’t signal an immediate descent into widespread energy shortage, energy costs are going up. Conservation of the energy we use is a proven method for making what we do have last longer – it effectively decreases the demands on our finite supply. Beyond the energy issue, there are environmental issues to consider as

well; energy savings equal less stress on our environment. If enough individuals make energy conscious decisions, the collective effort can drastically reduce our energy dependency, and what’s more, do it in an immediate timeframe. When looked at from a financial perspective, it all comes down to a matter of personal choice: do you conserve and save, or do you continue to consume and become subject to greater and greater energy costs?

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