

# Alternative Energy

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Are you concerned that the Earth will get polluted too much? Do you think that these greenhouse gases can change life forever? This is why we need greener energy sources. A couple of forms of alternative energies are solar and wind. Of these renewable sources, solar would be most beneficial for the citizens of Marlborough to use.

Why do we need alternative energy sources? The answer is simple. First of all, global warming is a problem we are facing today. "...some of what is predicted is a change in precipitation patterns - extended drought or extended rain/snowfall in places where that is unusual, stronger hurricanes and cyclones as they feed on the warm water." Storms will get stronger which will cause lots of damage. For example, we recently had hurricane Sandy, the second most costly storm after hurricane Katrina. Another reason why we need alternative energies is because burning fossil fuels is bad for the environment. "A major contributor to air pollution, fossil fuel combustion produces many harmful pollutants that are toxic to human health." Not only do fossil fuels pollute the air, but they also give us toxic air to breathe. Lastly, greenhouse gases are a major reason of why we need a new energy source. "Greenhouse gases

released into the air make the earth warming and melt ice caps.” These greenhouse gases released through burning fossil fuels are the major cause of global warming. We need green energy that does not release greenhouse gases.

One type of alternative energy is wind. This type of energy is very easy to utilize. “...the turbines spin...and get sent to a generator....that gives off power to the distributive lines and stations.” Basically, all you need for energy is wind, a generator, and power lines. Unlike fossil fuels, wind never runs out. “For wind energy to work...you need at least 30 mph of wind (for the turbines to spin)...” Thirty miles an hour is not very windy, making this energy source very practical. Also, wind does not give off any pollution at all. “...it gives off no harmful greenhouse gases while being operated - no methane, no carbon dioxide.” Eliminating carbon dioxide reduces the amount of greenhouse gases released in the air. Lastly, wind turbines don’t produce harm at all. “Wind farms do not produce extreme noise, and they have not shown any effect on farms, other livestock, or tourism concerns.” Thus, wind energy is completely harmless, but completely effective.

Another type of alternative energy is solar. Solar energy is power that comes from the sun. “Solar energy is the radiant energy produced by the Sun. It is both light and heat...it also uses solar panels...to get the sun’s energy.” Unlike most energy, solar energy is free. “Solar doesn’t require expensive and ongoing raw materials like oil or coal, and requires significantly lower operational labor than conventional power production.” This means you can easily get solar energy. The only price is the installation and the panels. Another benefit for solar energy is that it creates more jobs. “The EIAA states that Europe’s solar industry has created 100,000 jobs so far. Solar jobs come in many forms, from manufacturing, installing, monitoring and maintaining solar panels, to research and design, development, cultural integration, and policy

jobs.” This means that the unemployment rate could go down and the pollution can go down. Lastly, solar energy has a huge future. “Solar technology is currently improving in leaps and bounds. Across the world, and particularly in Europe, savvy clean technology researchers are making enormous developments in solar technology.” There is a lot of ongoing research to improve solar panels. Solar energy in the future could only need to use a panel the size of a dime.

Of these two amazing alternative energies, solar would be best for the citizens of Marlborough to use. The weather and topography of Marlborough will explain why. First of all, we have approximately three-hundred sunny days a year. That’s very good for having solar panels. Also, Marlborough is very hilly. Wind farms need to be in places that are flat, like plains and fields. Snow is also a big factor. To get snow off of panels, all you need is a shovel, but you can’t get snow off of turbines. Lastly, solar energy is much more affordable than wind energy. Wind turbines cost about \$10,000, but solar panels only cost \$1,000 with installation! This is why solar energy would be best for Marlborough.

Overall, solar and wind energy are two renewable sources that could replace harmful fossil fuels. Solar energy would be most beneficial to the small, hilly New England city of Marlborough, MA.