

## Renewable Energy Essay

By Kate

America releases over 25% of the world's pollution into the ecosystem, and we must begin replacing the toxic fossil fuels that we use with alternative energy sources such as renewable energy. Renewable energy comes in many forms, such as wind power. Wind power is an efficient and safe renewable energy source that does not cause pollution. It is also perfect for Maine because of our state's geography. Wind power has environmental advantages, economical advantages, and very few disadvantages and is the best possible energy source for our state.

Windmills used to be considered dangerous because they rotated at high speeds and were infamous for injuring animals just a few years ago. The turbines have been updated since then and are now built larger and more efficiently. Because of the upgrade the blades now turn much slower and give birds and bats an easy route around them without being injured. This is very important because birds are already hunted and some species are becoming endangered and we need to prevent more from being injured.

One of the economical advantages is the amount of power the wind farms create. The Mars Hill wind farm project will create enough power to provide 45,000 average Maine homes when working at full capacity. This is enough to power at least one city in Maine, and if more were created most of the population could use wind energy instead of fossil fuels. Also, our state is nearly perfect for wind farms. Maine's large, jagged mountains and high hills make it easy to find the perfect location for more wind farms. Furthermore, because our state tends to have very windy days the turbines would be able to work at nearly full capacity for many days in a row. This is important because the less we use fossil fuels, the less pollution will be released into the atmosphere and less heat will be trapped in our ozone layer, which causes global warming.

Because the Mars Hill project will not work at full capacity constantly, we must consider the amount of electricity it will provide when the wind isn't blowing strong. Studies show that when the wind turbines are working at 35%, a common low capacity, it will still provide enough power for over 22,000 homes. This could supply a small town with enough energy to function the same as if the city were using fossil fuel. This is important because although the wind almost always blows it is not always strong enough to provide a windmill with full power. This shows that the windmills do not need strong, constant wind.

A drawback to wind energy is that birds and other flying animals are being injured by the turbines. Many birds have been found dead near wind farms and although some of them don't appear to have impacted with a blade on the turbines it is still a problem that needs to be solved. To help prevent this problem the site that is being considered for a wind farm is watched closely by radar for a year to check for migratory paths. If any birds were seen flying near the area, the building is canceled and a new site is found. And, as discussed earlier, the windmills have been upgraded which has decreased the amount of birds injured and killed substantially, but not completely. In the future the turbines could be made of another material so that if the birds accidentally impact with it they will not be harmed. They could also make the blades thinner so the birds are less likely to hit them. This is very important because some species of birds and bats are endangered and we need to prevent their numbers from dropping any further.

There are many more environmental and economical benefits if you use wind power.

Wind power is one of the cleanest, and most efficient renewable energy sources on earth and you can help bring more wind farms to Maine. Urge your local government ( such as mayors, political figures, senators, etcetera) to use abandoned fields as wind farms. Remind them of the benefits and speak to the government authorities about looking into using wind power for the city.