Rolling into the Future

The planet Earth is heating up. Each year the average temperature moves up a notch on the thermometer just as it has done in cycles for thousands of years. There is something unnatural about it this time though. The human population has sped up this natural process into something we need to fix and hopefully prevent. In 2004 Americans drove 206 trillion miles which accounts for half of the greenhouse gas emissions of the United States. On average each car in the United States gets about 20 miles to the gallon of gasoline and each gallon of gasoline puts about 6.8 pounds of carbon dioxide into the air. All of this greenhouse gas gets trapped in our atmosphere, making the whole ecosystem heat up. Being dependent on foreign oil is marking the United States as the leading cause for the destruction of the environment and ultimately the warming of Earth on a global scale. In order to get out of the grasp in which oil has on Americans new technology must be introduced in the automotive department to make clean driving possible.

Doug Fine, an environmentalist and author of *Farewell, My Subaru*, is determined to run on local "clean" fuel. One of his solutions was to convert a diesel, gas guzzling truck into a clean vegetable oil burning green-machine. He uses the cooking oil from local restaurants to propel himself into the future of green transportation. What comes out of his tailpipe is not harmful to the environment, but far from it. In fact the only thing it may have been harmful to is Doug's arteries since the emissions smell of fried food makes him crave such food. Doug's main focus and reason for converting to the vegetable oil engine would simply have been the absence of foreign oil or gasoline in almost any way. When someone puts gas into their tank they seem not to realize how much more gas it took before it even got to the local gas station. Hundreds if not

thousands of gallons of gasoline were used just to bring that one tank of gas to the consumer.

The fact that all of this gasoline would be used just to get an individual their gasoline would have driven Fine to just cut out the entire carbon footprint from the source. Before Fine made the decision that a vegetable oil engine would be best other options must have been considered.

Many major companies that produce cars are begun to break into the "hybrid" scene. Hybrid cars are a combination of a gasoline powered engine and electric motor which causes more miles per gallon of gasoline. For the average American a hybrid car may be a good affordable option to begin the process of reducing his or her carbon footprint. Hybrid cars, however, do not completely diminish the carbon footprint of any one person completely. Hybrid cars get on average sixty miles per gallon of gasoline, but the fact is that they still use the carbon emitting substance. Coming out of the tailpipes of hybrid cars is still carbon dioxide and other greenhouse gases. Although a hybrid car is a good place to start on the journey of going green it is not the ultimate solution that the world needs.

From gas guzzling monstrosities to hybrid "better than nothing" vehicles, there is still something that needs to be taken out of the equation of transportation and that is gasoline. There are however two types of vehicles that takes gasoline completely out of this calculation. Electric vehicles are the first type of transportation that requires no gasoline to run and has zero greenhouse admissions. Cars like this provide the convenience of being able to charge at home and could potentially cost as little as two dollars per charge and one charge could get a driver anywhere from 250-350 miles before another charge is needed, and when combined with a solar panel or another renewable resource running the car will cost no money and no foreign oil. The electric car can range from luxury to a working man's model. Although they are a little pricey

they may well be the cars of the future. However there is a car that is more efficient and could well exceed the electric car and other transportation.

This vehicle is none other than the hydrogen fuel cell car. The hydrogen fuel cell car is essentially an electric car but uses hydrogen gas instead of another source to power the electric motor. The electric car uses a battery which stores chemical energy which flows and creates the electricity to run the car. After a while this chemical energy is depleted and the battery is either thrown out or recharged. Hydrogen fuel cell cars continuously have a flow of electricity through the car with the only emission being water and heat. These vehicles are only in the developmental phases of production so there are not many open for consumers, but as the technology develops hydrogen cars may eventually become the car of choice for most consumers.

The main ideal of global warming is that in order to prevent the temperature of the Earth to rise to dangerous levels human beings must lower their carbon footprint. Over half of all emissions that Americans let out into the atmosphere is simply from transportation, namely passenger vehicles. A number of people have already converted their lives into a "green" living such as Doug Fine but more can be done. The world needs a new generation of people to take over where the last generation left off and prevent where the world may be heading. If foreign oil cannot be stripped away then war, chaos and possible an extinction of the human species along with many others may ensue. The planet Earth needs green living and everyone needs to embark in their own adventure on local living.