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Discovering Science - Current Issues in a Changing World

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The main energy source my community and household use are electricity. Electricity is a secondary energy source. Our household is powered by the company Duke Energy. Duke Energy’s delivers electricity from power generating stations. Power generating stations produces the electric energy from other forms of energy, for example it can be turned into heat, natural gas, and even nuclear energy. Then the electricity is transferred to transmission line. Transmission lines carry the electric energy to other power sources, directing it to a certain source, and can be carried overhead or underground. Then transferred to substations. Substations are used to change the voltage levels, and is distributed into the grid system. Then transferred to powerlines, which transmit the generated power to many places over long distances. Then it gets transferred to households and businesses.

Natural gases are the source for heating in my household. With Duke Energy also providing natural gas it produces about 60 million households with it. Natural gas in my household is used for “cooking, water heating, home heating and cooling, dryers, and grills.” (Nikki, *Natural gas: The advantages and disadvantages* 2021). Natural gases decrease pollution and helps improve the environmental performance. The main energy source I use for transportation are natural gas and oils fuel. I also use electricity as a source by powering my car’s battery.

The renewable source of energy that would be most appropriate for my area is solar. I think solar, because even though my household isn’t solar power there are multiple places in my community that use solar as a resource. One place in my community that uses solar in my community is the schools. The schools use electricity, but when I used to go to school around here, I remember seeing and hearing about the solar panels on top of the schools’ roof. The least appropriate source of energy for my community would be hydropower. It would be least appropriate, because there is not a body of water like a dam to produce such power. There also isn’t a beach or ocean near me to produce wave power or tidal power.

Some advantages of electrical energy are that it is easy to transport to far distance places quickly, It also reduces greenhouse gases, needs less maintenance. Some disadvantages to electrical energy are that it is dangerous, and it is also hard to ensure the quality of the electrical power at terminals. Some advantages of natural gas are that it can also be easily transported, and also causes less pollution, and it is also easy to harness. Some disadvantages of natural gas are that it is limited as a source of energy, and it will eventually run out. Natural gas also lets out carbon dioxide.

Some advantages of solar is that it reduces carbon output. Solar energy also can save you money on your electrical bill, and it can also increase your home value. Solar energy also has low maintenance expenses. Some disadvantages od solar energy is that the cost of installation can be costly, and solar energy doesn’t work for every place because of the roof type. Another disadvantage is that is relies on the sunlight to produce energy.

Some advantages of hydropower energy are that it is reliable, and it is also safe, because there are no risk of oil spills or pipes bursting. Hydropower energy is that is doesn’t release carbon dioxide. Some disadvantages of hydropower energy are that it is expensive to build, and with hydropower energy there can be a chance that a drought can happen and that will cause there to be not enough water flowing to produce energy.

In my opinion the United States should pursue more renewable energy sources going forward. It would be very beneficial to switch to more renewable energy sources as well. Switching to renewable energy sources would decrease greenhouse gasses, which will also reduce air pollution. It will also create more jobs in the making of switching to renewable energy. “Jobs in manufacturing, installation, and more”. It would also make for a more reliable power supply and improve the quality for power. It will also be more beneficial with cost and expenses. Renewable energy is also a fuel that will never run out, with it using “sunlight, wind, water, biomass, and even geothermal (underground heat.” (*Local Renewable Energy Benefits and Resources* 2022). Using resources like coal and oil they are eventually going to run out, and because of that and inflation the price of those resources is rising. Also, with power station like a coal power station they can release “mercury, lead, sulfur dioxide, particulates and dangerous metals – which can cause a host of health problems.” (*Local Renewable Energy Benefits and Resources* 2022)

I heard that some cities are forcing citizens to have electric cars in the future, which I think is very beneficial, but at the same time I don’t think they should force the community to switch. I think the government should definitely encourage the use of renewable energy, but shouldn’t have policies due to some individual’s finical state. The government should encourage it by stating all the benefits and spread awareness of renewable energy, and in due time will reduce the carbon footprint the United States has being making on this earth, because it does pollute the air or water and doesn’t make waste. By reducing our use of gas and electricity we can lower our carbon footprint.

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