Personal Reflection

“How would the capacity of the alternative non-fossil fuel energy sources affect the needs of the present and future societies?” is the question that I thought of very deeply. I figured that non-fossil fuels or renewable energy sources can make a difference in our society in terms of climate change. This question relates into Environmental Science 20 course in variety of ways. For instance, Terrestrial ecosystem can simply be related to Geothermal Energy Source because it can affect terrestrial areas when hydraulic machines digs the ground which can cause soil cracks, droughts, and earthquake, habitat extinction and heavy metal exposures. These causes can impact agriculture and environment. Other related course is Aquatic Ecosystem, hydroelectricity energy can cause waterborne diseases such as pathogenic microorganism, typhoid and cholera for both humans and animals if not monitored properly. Furthermore, Human Population depends on the capacity of the earth’s CO2 emission. If the earth becomes contaminated by CO2, the survival of humankind will probably die, however, we have renewable source to reduce the carbon emission in the atmosphere. Lastly, Atmospheric System can be linked to renewable sources, in terms of climate change. Renewable energy is a source that does not produce carbon emission, which is reliable in the future society.

Gathering my research information about my inquiry question were very open ended. It gave me a lot of different views and explanations about my topic and I was able to answer most of my personal questions. For instance, when it comes to solar panels I found a way to calculate how much solar panels you will need: divide your monthly kWh in 30 days, then divide it by 6 hours of sunlight, then divide you answer to 80%, then convert your answer (kWh to watts) and finally divide it by the average solar panel power is which is 250 watts. In addition, I was also able to learn that not only Photovoltaic Solar Panels can absorb sunlight, but also parabolic mirrors. In Spain, they use parabolic mirrors and angle it to reflect the sun’s heat into a focal point. Using parabolic mirrors saves more money than photovoltaic panels. Furthermore, Wind Energy is subsidized by government as an investment in the future, because it is believe that we will eventually rely on renewable energy when the fossil fuels run out. I personally believe that it is the great investment, because it prepares us in the future and it influences other people to use wind turbines. Moreover, Geothermal Energy can cause instability of land, such as earthquakes and tsunami, which can be triggered by machines that digs deep down the earth surface. Lastly, hydroelectric power can power up cars using Liquid Hydrogen, which can be reliable in the future.

My inquiry question can be linked into all three pillar of sustainability. Environmentally, all non-fossil fuels does not produce atmospheric pollutants, which can be very beneficial to environment. Also all of these renewable energy sources produces no waste. However, if the energy source is not monitored or managed properly, it can negatively impact the environment. For instance, solar panels contain oil, hexafluoride, molten salts and methylmercury which can accumulate in aquatic food chain (Hydro power). Socially, Geothermal Energy can enhances recreational facilities, such as hot springs, which can attract tourist. In addition, Solar, Wind, Geothermal and Hydro are all free fuels, they can be all use as an electricity and improve your living conditions, such as paying less in electricity bills and it can also be reliable if a blackout occurs because it can supply electricity. Moreover, these renewable sources, can power up our technology to expand our inventions to make life easier, such as Innovation in Nanotechnology and Quantum Physics. Economically, renewable energy sources provides job opportunities for many people in terms of assembly workers, especially in the future when fossil fuels run out. Since hydroelectric energy is the most used renewable energy, therefore, it comes with high incomes and it can be used to sustain other renewable energy sources (ex. Creating turbines and solar panels) which can be beneficial economically.

I chose this topic because climate change is currently the biggest factor in the world. According to ypte.org.uk, oil, gas and coal are predicted to only last for about 56 more years. That made me realized that I will be part of the future. Therefore, I chose this topic just to know the precautions, so that I would know what to do and what to expect if the time of fossil fuel comes to an end.

I personally think that everyone should learn this topic because it concerns the future of the world. It is predicted that fossil fuels will run out in the next 56 years. However, in my opinion I think that we should not reach the limit of fossil fuels because we do not have specific evidence on what will exactly happen in the future. Even other people that does not think will reach the future, it is still important to learn this topic because it will concern their future grandchildren.

By 2050, it is predicted that earth’s population will reach 10 billion people and that can play a major role in the capacity of renewable energy sources. If somehow we reach the capacity of human population, our renewable innovative technology such as solar panels, wind turbines, hydro power plant and geothermal facilities may encounter location difficulties due to less space. This could affect the energy source capacity to supply our society in terms of Economically, Environmentally and Socially. Furthermore, renewable energy will be much more economically effective because fossil fuels will soon run out and the price for innovative technology (ex, solar panels, wind turbines, geothermal plant) will go cheaper. This could influence people to become eco-friendly and increase the usage of renewable energy sources.