

Climate Change: A Turn to Renewable Energy

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**Introduction:**

Climate change is a massive problem all around the world, however, it seems the even larger problem is our ineffectiveness to address this problem as a community and how to prevent it. In our podcast, the 5 topics we discussed were the opinions of society, the health problems, the cost, and the two possible solutions to climate change. Specifically, I did extensive research on one of the possible solutions: renewable energy. Renewable energy, especially wind and solar power, is a growing industry in our economy, which will lead to new job opportunities and help slow down the growing problem of climate change.

**Reflection:**

Our main concerns going into the discussion were what are some solutions to reduce the growth of climate change, and why is it so hard for people to implement these potential solutions into their lives? In our podcast, we first discussed the opinions of society toward climate change, to try and get a better understanding as to why not enough is being done to prevent this issue. We played an audio clip from a TED talk that mentions “70% also agree that it will harm plants and animals and it will harm future generations... only about 60% of people think that it will affect people in the United States, only 40% of people think that it will affect us personally...”. We further discussed that our lack of taking action was due to people not seeing climate change affecting them individually. We came to the conclusion that people are scared of change, and if they aren't being directly affected by global warming people feel they should not need to alter their lives. Then, we explained that if we continue to not reduce our CO2 emissions, it could lead to an increase in health problems. Emily described many of the potential health risks, including diminished lung function, asthma, and premature deaths and that health problems due to air

pollution has been estimated to cost up to \$6.5 billion. Another health issue we mentioned that could affect us in the future was a decrease in food production. Due to many extreme weather events, crop yield is expected to decrease and as our population continues to rapidly grow, it could lead to food shortages in many countries. We lead our discussion toward possible solutions, one being implementing a carbon tax. If we decide to start taxing those for the use of carbon, it would mostly affect the big corporations and factories that emit the most CO<sub>2</sub>. People always want the opportunity to save money, which is why we believe a carbon tax is effective because it drives people to consider alternatives, such as renewable energy. We then discussed our other possible solution: renewable energy and its benefits. Some pros including the reduction in CO<sub>2</sub> emissions, less dependence on other countries, and in the long run, money being saved. If we implement a carbon tax and increase our usage of renewable energy, both solutions will help us with this battle against climate change.

A few limitations we had during our podcast was the set up of the table. Since I was sitting on the end, it was difficult for me to engage in a conversation with someone who was on the other side of the table. If we were sitting across from each other, it would have allowed for a more fluid, back and forth conversation. Also, some of our audios could have been more focused on bringing up new ideas and opinions, instead of reading off data. We could have delivered the data on our own, and used more captivating and interesting audio clips that we could create conversation off of.

**Research:**

My focus while I was doing research on the topic of renewable energy was what our current uses of renewable energy are in the U.S and which forms of energy are the most practical

to implement in our society. Currently, hydro power is the United States' most used renewable source, producing one-fourth of our total renewable energy. However, these dams are very damaging to streams, rivers, and their ecosystems. Even though wind and solar power are less used in the U.S, they seem the most promising in creating jobs in the future, as they are developing these technologies to be cheaper to buy and more efficient. Wind and solar are a growing industry because collectively they are less harmful to the environment, less limiting on where it can be built, and provides for more accessibility to smaller communities . The American Geosciences Institute reported, "Renewable energy sources provided 17% of U.S. electricity generation in 2018. Most of this was in the form of hydro and wind power." This is an increase of about 10% from 2010, however more must be done since the U.S is the second leading country behind China in CO2 emissions.

Now, the question is what is the most effective way to reduce our emissions? The New Jersey Institute of Technology did research on the most efficient renewable energy source. They calculate efficiency by the cost of fuel and production, and the cost of handling environmental damages. The institute concluded that wind power is the most efficient over geothermal, solar, hydro, and nuclear power. Advantages of building more wind turbines include the creation of jobs since in 2016, wind energy provided for 88,000 jobs. Wind energy emits zero CO2 emissions and does not require any water to function. It also benefits our economy since it generated almost \$130 billion dollars from 2008 to 2015 in private investments. Many people are concerned with the up-front cost of renewable energy and do not take into account all the money that could be saved in the long-term, and that solar and wind power are decreasing in price every year as it becomes more efficient. A calculation done by the American Wind Energy Association

states, “In 2018, the electricity generated from wind turbines avoided an estimated 200 million tons of carbon pollution. This reduction is equal to roughly 43 million cars’ worth of CO<sub>2</sub> emissions.” Wind power and renewable energy continue to prove to be a successful solution to our emissions problem, and we must continue to promote and educate those on the benefits of renewable energy.

China, which releases the most emissions of any country, is continuing to increase their use of renewable energy leading many people to call China “the world’s renewable energy superpower . Currently, “*Its 13th Five Year Plan for Electricity (2016-2020)* aims to raise non-fossil fuel’s share of total electricity production from 35 to 39 percent by 2020”. China is setting a great example to other countries, and especially the U.S, by implementing policies and plans to decrease the amount of CO<sub>2</sub> they release. Setting goals for our country is very important, however, the biggest obstacle is switching societies habits to be more environmentally friendly. We are risking losing this planet due to our selfishness, when all we have to do is change our lifestyles to save later generations who should be able to appreciate the beauty of our world.

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