Clean efficient energy for our world

Science, Physics

Our world’s advances in energy efficiency has been crucial to our technological, economic and social development. Creating energy has powered our advancements in modern machinery as well as stimulating our economy by creating jobs and improving our quality of life. But with these advancements came a great price: our global health. Our current mode of producing energy is having a deadly toll on our environment as well as our bodies. Today I would like to discuss nonrenewable resources and their deadly impact on our environment. I will go over what fossil fuels are and their impact, secondly, we will examine our alternatives and thirdly we will discuss what this means for our world’s developing nations.

Globally, our currently most used form of energy is the burning of nonrenewable resources. Nonrenewable resources are also called “ fossil fuels”, which are the byproduct of deceased organisms from thousands of years ago, such as dinosaurs. Our world’s most widely used forms of fossil fuels are coal, petroleum and natural gas. While these resources are reliable and cost efficient, they are costly to our planet. Coal is mined and burned in order to produce energy. According to the National Geographic Society1 burning coal releases poisonous gases and pollutants such as carbon dioxide into our atmosphere. Mining coal is also an incredibly dangerous job. Miners are exposed to these toxic gases in large quantities and risk being trapped in the caves they are mining due to erosion or explosion. Petroleum is not as dangerous for workers. It is cost efficient, reliable and provides jobs. While it is not as dangerous for workers, it is deadly for us and other animals. Drilling for petroleum also releases toxins into the air as well as running the risk of an oil spill. According to the Center of Biological Diversity2 205. 8 million

gallons of oil and 225, 000 tons of methane were spilled into the Gulf of Mexico in the Gulf Oil Spill of 2010. As a result, approximately 82, 000 birds, 6, 165 sea turtles and 25, 900 marine mammals were seriously harmed or killed. It is impossible the count the hundreds of thousands of alternative ocean life that was also harmed, such as fish, coral and crabs. We are having an undeniably severe impact on our environment and people through our methods of obtaining energy.

But what does this mean for developing countries? According to the proceedings of a conference organized by the European Office of the Konrad-Adenauer-Stiftung and the EastWest Institute3 nearly 2 million people live without energy. It was stated in this conference that there is great potential in developing countries for securing renewable energy sources that will greatly improve their quality of life. It further states that giving developing countries access to clean energy will stimulate their economy and speed up economic development. In Brazil, for example, using the byproduct of their sugar productions to create ethanol, rather than mining, has created almost a million new jobs. Furthermore, by eliminating the need for fuel imports, developing countries would save money that can be put towards expanding their renewable resource programs.

Nonrenewable resources are incredibly cost efficient in the long run, but it is no secret that this transition will be costly. The Stern Review (‘ The Economics of Climate Change’) with the National Bureau of Economic Research4 estimated that about 20-30 billion dollars will be needed every year to support our transition to only nonrenewable resources. This sounds

like a lot of money, but by eliminating fuel imports and the need for costly machinery, this transition will be well supported. Not only will it save money, stimulate the economy and create jobs, these resources will never run out unlike coal, petroleum and natural gas. The transition to renewable resources such as wind, solar and hydraulics is inevitable as we continue to deplete our resources. Some may say that developing nations will not be able to afford this cost, but The European Union is currently working on a fund in which first world countries most responsible for carbon emissions and environmental damage will help developing countries financially so that they do not make the same mistakes and add to the damage already done.

Our world’s great strides in technological, economic and social advances is a direct result of our advancements in obtaining and producing energy. As we continue to adapt and change, we must take our planet into consideration. We can continue to advance on a global level while also maintaining our global health by simply using the sources of energy our planet continuously and unceasingly gives to us. This transition will be a difficult one, but entirely necessarily. It is the moral responsibility of advanced nations to help our developing nations take the necessary steps to not make the same mistakes as we have. If we all work together we can not only prevent, but also reverse some of our carbon damage, making a healthier, safer planet for everyone.