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City As School

Social Studies Research Paper

As you may already know, we are already in deep crisis with our energy sources. Nonrenewable sources like coal, natural gas, oil, and nuclear are depleting greatly, as they are the primary sources for energy today, making up approximately 84% of supply ("Energy Sources: What Are the Pros and Cons."). Of course, since there is only a limited amount on earth, it will soon deplete, causing many effects that will pose a serious threat to humanity in the near future. Because of this, innovators and scientists alike are trying to find ways to stabilize the earth and to stall global warming. We are taking action, but some actually are leading to the same path we started from, for example, in regard to hydrogen fuel, Elon Musk said, "It's going to be super obvious how much inefficient hydrogen is as a fuel cell ("Elon Musk on Why Hydrogen Fuel Cell Is Dumb (2015)." *YouTube*.). But in polar opposite we are developing alternative ways to grasp energy, and the first step is to get people to know about it. Through their educational programs, Envirolution prepares the next generation to engage in "Green Careers", lower energy costs, and be more energy efficient through activities such as retrofits and the use of solar panels.

NYC is the eighth most consumed energy state within the 50 states, but is the second least most consumption per capita. ("Envirolution, Win-Win Program." Powerpoint) Natural gas is NYC most consumed energy source for today, more than doubling the second most consumed

energy, ethanol. Through out New York though, Hydroelectric are the most popular. Ever thought about how efficient solar panel is and if you are able to afford it? Envirolution provides information about today's green economy. Envirolution is a non-profit organization that provides training to all ages and jobs that they achieve at the end of their training to partake a green eco-friendly society. Their motive is to get a 100% energy use from clean and renewable sources, and to get the whole society, including the government to commit to preserving and helping our endangered biosphere, and to educate new generations about everyday consumptions of utility that can be put into better use and also along the lines, improving the use of it.

Envirolution was created by four Yale university students at 2006, feeling that they are blessed and would want to help the world to maintain earth. They went through many companies and organization to improve their positions, and to grasp some power. after three years, Envirolution was opened to the public, having Antuan Cannon, the CEO of the organization. The organization consist of 2 sites in New York, and one in Reno, Nevada with over 100 employees, and over 1000 interns in training. The main portion they are proud of that other organizations can't bring, is that they have many intern programs that allows them to spread the influence among youth, enabling them to succeed at their objectives and provide similar environment to an everyday engineer job. The programs consist of courses that are in different levels due to the intern's skills, some start with worksheets and small tests, the more advance ones, they are able to interact with solar panels, lighting systems, heating systems, and sometimes they take that interaction to the intern's house to improve and learn coexisting. The most popular one out of the many is the residential tier course in the Win-Win program. It talks about relative topics that residents should know about their electricity and what to do about it, leading connections to their

partnership. Another course is called Commercial Tier course, discussing and telling the truth about big companies manipulating and jeopardizing the energy industry just for money. The courses are able to fit everyone's schedule, there are many courses to your liking, and even sometimes, some employees would go to a community site, to teach a smaller group of interns to their likeable time. The ones about solar energy are sent to SolarOne, a company in NYC that is partnering with Envirolution, confirming that today's solar panel is so efficient and affordable that today's can power the whole world. Envirolution actually puts a lot of their funding into production of solar panels, and to actually working with SolarOne to install them to residential roofs. Solar power is super great at this time of global warming, even long before society's very existence is threatened by global warming, within the coming decades, global warming is projected to cost society trillions of dollars if left unabated. Fighting global warming with solar power will likely save society billions or even trillions of dollars. (Green, Joshua. "The Elusive Green Economy." *The Atlantic*. Atlantic Media Company, 01 July 2009. Web. 02 June 2015.) Putting solar PV panels on your roof is likely to save you tens of thousands of dollars. The average 20-year savings for Americans who went solar in 2011 were projected to be a little over \$20,000. In the populous states of New York, California, and Florida, the projected savings were over \$30,000. In the sunny but expensive paradise known as Hawaii, the projected savings were nearly \$65,000! (Green, Joshua. "The Elusive Green Economy.") The rising and setting of the sun is extremely consistent. All across the world, we know exactly when it will rise and set every day of the year. While clouds may be a bit less predictable, we do also have fairly good seasonal and daily projections for the amount of sunlight that will be received in different locations. All in all, this makes solar power an extremely reliable source of energy. anytime the local solar panel

can power a community and therefore makes a domino effect throughout the world and having it being cheaper than most other energy resources. Also adding it to your home can provide an inexpensive electricity bill to you and the government. You can save up to 40% of price when installment and such with credits. The rising and setting of the sun is extremely consistent. All across the world, we know exactly when it will rise and set every day of the year. While clouds may be a bit less predictable, we do also have fairly good seasonal and daily projections for the amount of sunlight that will be received in different locations. All in all, this makes solar power an extremely reliable source of energy. anytime the local solar panel can power a community and therefore makes a domino effect throughout the world and having it being cheaper than most other energy resources. (Green, Joshua. "The Elusive Green Economy.") Also adding it to your home can provide an inexpensive electricity bill to you and the government. You can save up to 40% of price when installment and such with credits ("More Efficient Solar Panels, Thanks To Eye Of Moth And Leaf Of Lotus." *CleanTechnica*. N.p., 16 May 2015. Web. 02 June 2015.)

Some examples of green innovation include photovoltaic (solar) cells, LED lighting, and resource recovery technologies that turn solid waste into an energy source usable by homes and businesses. The Industrial Revolution, a period of great technological development, ushered in the use of fossil fuels, traditionally coal and oil, and the practice of deforestation. Because of these behaviors, higher concentrations of heat-trapping greenhouse gases, like carbon dioxide and methane, began to accumulate in the Earth's atmosphere. We are facing three overarching challenges. An Economic crisis, collapse of credit market and just general instability, human caused climate change that is rapidly increasing due many sources, and energy crisis, depending on unhealthy methods and generally using foreign oil. Our Economic crisis, we are currently at

an increase unemployment of 9.7%. (“Envirolution, Win-Win Program.” Powerpoint) In crisis like these, small businesses are usually hit hard with no backup (makes up 90% of businesses and over 50% employers) and rising cost, drops in business and tightening credit market leading to cashflow problems for many small companies. As for climate changes, the outcomes are very rough conditions. Individual’s health are having a rise in stress due to heat, and indirect issues of approach to food, water and convenient climates. The Ecosystem and natural habitats are in danger due to sudden rise of heat, making everything within altered or dysfunctional. weathers are more severe, drastic causing more problems for society, like crops and food supply. The melting glaciers due to global warming could cause massive sea level rises. in the past half century the world has a lost $\frac{1}{4}$ of its topsoil and $\frac{1}{3}$ of its forest cover. We’re losing freshwater ecosystems at 6% a year marine ecosystems by 4% a year. At present rates of destruction, we will lose 70% of the world’s coral reefs in our lifetime, host to 25% of marine. Scientists says the safe upper limit for carbon dioxide in the atmosphere is 350 ppm, but we are currently at 388 ppm. Energy Crisis, the import of oil grew to over 70% in recent years, and oil based economy is harmful for health and environment. Prices is rising, recently 22% ConEd customers, and expected to increase 60% in next 20+ years in NYC (“Envirolution, Win-Win Program.” Powerpoint). As oil it's a nonrenewable fuel source, therefore that will eventually run out.

Even though, we are very late to make positive changes about our earth, We have at least started and promoting the cause by educating our generation and next about the crisis of ground we stand on. Society and media are at best, are making eco-friendly the cynosure of many things. Companies and organization now are taking risks to make a leap forward to the utopia society we see in many sci-fi movies, and to possibly, if this does not work out, migrate to another planet!

