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The Societal Misconceptions on Electrical Energy and the Environment

“The Smart Grid: A Bridge between Emerging Technologies, Society, and the Environment”

by Dr. Richard Schuler

Dr. Richard Schuler, a professor of economics and civil and environmental engineering at Cornell published a paper relating to the Smart Grid. He discussed the merging of emerging technologies, society, and the environment. His hypotheses goes as follows, “... if customers have the necessary smarts, the smart grid can be a pathway toward sustainable society.” The main focus of this paper is to focus on the misconceptions many have on electrical energy and on the environment. The environment is hurt no matter how energy is produced, but there are some ways that are better. Dr. Schuler converses about the triangle between society, technology, and the environment.

“The Tragedy of the Commons,” a classic piece by Garrett Hardin warns society of the extreme problems that can arise when an absence of precaution is taken. The tragedy is that each individual will have a disposition to abuse the commons to his/her own advantage, many of the times without limit. Under this situation, the commons is exhausted and eventually non-existent. Many typical examples of the Tragedy of Commons refers to a depletion of rivers, clean air, or food. However, in this case, there is a tragedy of commons occurring in the overconsumption of electrical energy. The ignorance of many people leads them to believe

electrical energy is an everlasting source. Unfortunately, at the rate electricity is used, the sustainability of this precious resource is a rising concern, and renewable energy sources have a common stigma which makes it difficult to educate the general public.

Sustainability is the insurance that humans and the environment can live in balance for present and future generations. There are many myths on the sustainability of electrical energy. The most common is the belief that sustainability is only applicable to the environment. While the production of electrical energy is not directly related to the environment, its usage can greatly affect the environment. Coal is the most widely used fuel for generating energy. From the mining to burning of coal, it is a fuel that does more harm than good. Most of all, the burning of coal leads to heavy pollution. Many people unfortunately have a misconception on the types of fuel that can be used for electrical energy. Renewable resources such as solar, wind, and hydro are thought to be expensive, inconvenient, unreliability. However, we are using precious resources that will eventually run out. Dr. Schuler said the following, "...most people don't think about the adverse environmental consequences..." If the government does not step in and set stricter regulations, our nonrenewable resources will run out with no other alternatives than renewable energy.

People do not realize that they are affecting the environment when they plug in their phone to charge. However, the most shocking truth people are unaware of is not knowing who is really affected by energy production. Many big cities have electrical energy wired, but the burning of fuel and production of electricity is produced elsewhere. Therefore, energy usage is not only affecting the environment around the user, it is also greatly affecting the area where it

is produced. These negative effects can be reduced with a few changes, such as efficient energy use and more renewable electrically powered alternatives.

In conclusion, electrical energy production is a practice that has been going on for the past hundred years. Even though we have advanced in our knowledge of electricity, we now need to make strides to prolong the longevity of electrical energy. The only way this is possible is by using renewable energy to produce electrical power. Unfortunately, we have a misperception that electrical energy will last forever. This squander of resources is leading to a “tragedy of the commons,” which will cause preventable complications in the future. The only way to solve this issue is educating the general public. Dr. Schuler complains of the lack of attention the media covers on this issue. Electrical energy is a basic necessity that many take for granted. The sustainability of electrical energy and its power fuels is something we need to maintain for future generations. Scientific advances constantly occur and electrical energy is compulsory for many of these discoveries and inventions. Sustainability of electrical energy and efficient use of it is the only way we can be sure to give the same if not better standards to the coming generations.

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