Solar: towards a sustainable future

Literature, Russian Literature

Solar: Towards a sustainable future Examples of good sources of energy are solar and nuclear power. The history of solar energy goes back to ancienttimes; however, a more sophisticated use of solar energy happened in 1776 with the discovery of a solar collector, which could boil ammonium, and was subsequently used for refrigeration was built. The history of nuclear energy started with the discovery of the metal element uranium and its capability of producing a lot of energy in the 1950s. Solar power is a safe, sustainable and convenient source of energy compared to nuclear power, which is unsafe and costly.

In a solar plant, sunlight converted to electric energy via PV (Photovoltaic Solar) or CSP. CSP or concentrated solar power utilizes lenses and systems for tracking in order to focus large sunlight areas into smaller beams and serves as a means of producing sustainable source of energy and electric power today. (Petersons 52). Most of the electricity used in the U. S in the 21st Century is coal generated. The use of solar panels world over is effective and increasingly cost effective source of electricity.

Rationally, the facts are stacked in favor of solar energy. Recent studies by NC WARN show that costs related to nuclear energy are going up with the most recent estimate being 20¢$/kwh, while costs related to solar energy are going down, recently estimated at 15. 9¢/kwh, before transmission charges at the site (Petersons 43). Consequently, nuclear sources of energy have detrimental environmental consequences as opposed to solar energy. Nuclear waste possesses a half life of over 10, 000’s of years, compared to solar energy whose waste consists of used solar panels that can be recycled and re-used. No civilization ever existed as long as 10, 000 years, thus; it is

unethical to store waste that will take that long before becoming safe (Petersons 64). This waste is also very costly to dispose of. Sweden spent over $15 billion to manage this waste. Obviously, with all the poverty in the world, using this money to dispose waste is un-ethical. In other societal spheres, nuclear energy evokes emotions of sadness and tragedy in light of recent earthquake tsunami in Fukushima causing a nuclear accident in March 2011. Although, reports indicate that no persons reported dead or radiation related illness, fears of long-term effects led to evacuation of 100, 000 families from their homes. On the other hand, there are no documented studies on the negative effects associated with the use of solar energy, and as such regarded as cheap and clean among many world economies including US, Italy, Australia, and India with Germany as the fastest growing proponent to solar technologies.

Not only, other alternative sources of power generation a risk to greenhouse gases, suggestive studies also indicate on their finiteness and possibility of diminishing in supply. While world over people rely heavily on energy, a great deal of discussion relate to their unsustainable usage and therefore faster human utilization at the expense of replenishment and will soon get out of supply. On the other hand, solar energy is available wherever the sun shines therefore reliable and dependant on the abundance of sun and subsequently infinitely available.

However, nuclear energy does have some advantages over solar energy. Sunshine is normally intermittent in some parts of the world, thus solar energy is not reliable in these parts of the world. Nuclear power plants work all the time, unless there is an accident. Within various societal economies,

other issues to do with high initial cost for photovoltaic cells equally limit the use of solar energy.

In conclusion, while both sources of energy have potential benefits and limitations, nuclear energy is without doubt the most dangerous, environmentally unsafe, diminishing and emotive power generation alternative when compared to solar energy. Its dangers, though not very frequent, are not worth absorbing while a cheaper, safer, and more natural source exists, ready for utilization.

Works Cited

Petersons. Green Careers in Energy. New Jersey: Petersons (2010). Print