

Understanding Pollution: Solar Energy, the More Environmentally Friendly Approach to Powered Houses

There is a great argument taking place within our society over one of the most important resources man has: Power. No, I'm not talking politics or economics, though they certainly have their place in the argument. I am talking about electrical power. Up to this point in history electrical power has been generated through the burning of fossil fuels. As technology has advanced other alternatives have arisen. One of the most talked about is solar power. Like anything new there are both pros and cons to implementing solar power generation on a truly industrial scale. There are benefits, and there are challenges. There is also man's inherent fear of change.



The benefits of solar power are many and varied. To begin with enough solar energy hits the earth every day to supply our power needs 10000 times over.ⁱ Yes, you read that right. There is enough energy from sunlight for more than ten thousand times our power requirements. Another benefit of solar power is that it is renewable. It is estimated that our sun will not die for another 2.8 billion years.ⁱⁱ So, that means that for almost 3 billion years the sun will be pumping a continuous stream of energy to our planet. Now, I don't know about you but a 3 billion year power supply sounds pretty sustainable to me. Also, solar power is not like traditional methods of power generation in that it requires scarce natural resources to power it. It's powered by sunlight which is freely available in most parts of the world! True, there are certain areas where there is little to no sunlight

for parts of the year, but you have to walk before you can run, and solar technology is still advancing. It is almost estimated that money invested into solar energy creates 2-3 times more jobs than money invested into natural gas or coal.ⁱⁱⁱ In fact, the solar panel manufacturing companies in the United States employ roughly 27000 people.^{iv}



Now, as many benefits as there are to solar energy there are a few downsides. One of the most obvious problems with solar energy is what happens on a cloudy day? Absence on direct sunlight does not mean absence of solar energy. Because the sun's rays are blocked by clouds less energy is generated by solar panels.^v However, if we used solar energy along with other renewable energy sources such as wind power that would not be a serious issue. This leads us into the second problem with solar energy which is energy storage. As solar power is a newish technology scientists and researchers are still trying to discover the best way to store solar power, and make it available to those who need it.^{vi} Another issue with solar energy is the necessary space for panels. A single home can easily place panels on their roof, and generate enough power. However, the more energy that is needed the more panels that must be installed, and for larger companies that could equal a great deal of space.^{vii} Finally, while solar power is a pollution free form of energy, the manufacturing of solar panels themselves are not.^{viii} However, there is give and take in every situation, and the pollution generated in the construction of solar panels is nothing compared to the pollution generated every day with the burning of fossil fuels. Ultimately, there are negatives to everything in existence. The disadvantages associated with solar energy production do exist.

Despite that, it is a cleaner form of energy that is still in its infancy. As technology continues to advance, and solar energy becomes more and more used these disadvantages will become minimized.



As with anything that is new and unknown there is always pushback. Solar energy is no different. People fear what they do not understand, and are comfortable with what is familiar. Even if what is familiar is doing possible irreparable damage to the planet and its inhabitants. In November of 2014 a group of power companies, anti-tax activists, and billionaires pushed state governments to roll back their support of solar energy as a viable option.^{ix} They argue that solar energy offers unfair advantages to those who have solar panels equipped on their homes. What should not be surprising however is that most of the pushback against solar energy is coming from utilities and power companies.^x Despite this pushback, there is also innovation. A company in the United States has developed a prototype of a solar roadway that will allow not just solar generation, but the ability to upgrade our nation's road systems.^{xi} In fact, the Netherlands have already created a 70 meter solar bike lane, which has the capability to power three homes.^{xii} That's the Netherlands which at most gets access to 45% of the sun's rays because of their weather.^{xiii} There will always be pushback against new ideas, and innovations. It is how society as a whole deals with new ideas that truly matters.

Ultimately, I don't know what will happen with solar energy. Like any new technology it could take off or it could go the way of Betamax. For those who don't know, Betamax was VHS competitor format. You probably don't know about it because VHS became the popular format. That being said, can we really afford to ignore the possibilities associated with our own sun? The world is constantly changing and evolving, and mankind has a great deal to do with that change. We seek to become masters of our environment, and there is absolutely nothing wrong with that. However, we must also understand the need to be responsible masters. Do we truly wish to continue to pollute our land, air, and seas with the burning of fossil fuels? Or do we wish to pursue options that could propel the human race into a golden age? The choice is down to each and every one of us.

About the Author



Dominick Principe is a graduate of Rowan University with dual Bachelor Degrees in Elementary Education and Writing Arts. He is a prolific reader who devours any book put before him, and feels that life is one great long book without an end. He fills his hours constantly exploring new information, and seeking to educate himself in the ways of the world. He puts all of that knowledge and his passion for learning to good use teaching English as a second

language to students of all ages. When his nose isn't buried in a book, or in class teaching, then he can generally be found typing away at his computer working on some random piece of writing that he was inspired to do.

ⁱ "The Case for & Against Solar Energy." *Science*. Opposing Views. Web. 13 Nov. 2014. <<http://science.opposingviews.com/case-against-solar-energy-19638.html>>.

ⁱⁱ Fazekas, Andrew. "Study: Sun Will End Earthly Life in 2.8 Billion Years." *National Geographic*. National Geographic Society, 28 Oct. 2013. Web. 13 Nov. 2014.

<<http://news.nationalgeographic.com/news/2013/10/131028-earth-biosignature-doomsday-space-science/>>.

ⁱⁱⁱ "Advantages & Disadvantages Of Solar Power." *CleanTechnica*. Web. 13 Nov. 2014. <<http://cleantechnica.com/2013/10/08/advantages-disadvantages-solar-power/>>.

^{iv} "Solar Energy." *NRDC: Renewable Energy for America: Solar*. National Resource Defence Council. Web. 13 Nov. 2014. <<http://www.nrdc.org/energy/renewables/solar.asp>>.

^v "Solar Energy Pros and Cons - Energy Informative." *Energy Informative*. Web. 13 Nov. 2014. <<http://energyinformative.org/solar-energy-pros-and-cons/#expensive>>.

^{vi} "The Case for & Against Solar Energy." *Science*. Opposing Views. Web. 13 Nov. 2014. <<http://science.opposingviews.com/case-against-solar-energy-19638.html>>.

^{vii} "Disadvantages Of Solar Energy." *Conserve Energy Future*. Web. 13 Nov. 2014. <http://www.conserve-energy-future.com/Disadvantages_SolarEnergy.php>.

^{viii} "Disadvantages Of Solar Energy." *Conserve Energy Future*. Web. 13 Nov. 2014. <http://www.conserve-energy-future.com/Disadvantages_SolarEnergy.php>.

^{ix} Benen, Steve. "Kochs, Conservative Allies Align against Solar." *Msnbc.com*. NBC News Digital, 21 Apr. 2014. Web. 13 Nov. 2014. <<http://www.msnbc.com/rachel-maddow-show/kochs-conservative-allies-align-against>>.

^x "Utilities Push Back Against Increasing Popularity, Reduced Costs of Solar Power." *Rocky Mountain PBS INews*. Public Broadcasting Service, 1 Sept. 2014. Web. 13 Nov. 2014. <<http://inewsnetwork.org/2014/09/01/utilities-push-back-against-increasing-popularity-lower-costs-of-solar-power/>>.

^{xi} "Introduction." *Solar Roadways* -. Web. 13 Nov. 2014. <<http://www.solarroadways.com/intro.shtml>>.

^{xii} "Netherlands Unveils World's First Solar Bike Lane." - *Protection Now*. Web. 19 Nov. 2014. <http://www.bbc.com/capital/specials/protection-now/environment/netherlands-unveils-world-s-first-solar-bike-lane_a-35-334.html>.

^{xiii} "Average Weather in The Hague, Netherlands." *Weather and Climate: The Hague, Netherlands, Average Monthly , Rainfall (millimeter), Sunshine, Temperatures (celsius), Sunshine, Humidity, Wind Speed*. Web. 19 Nov. 2014. <<http://www.weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine,the-hague,Netherlands>>.