



Alyssa S.
Science Block
A

Solar Cells

The main parts of a Solar cell are the metal conductor strips, the n-type semiconductor, p-type semiconductor, metal backing and the p-n junction. Each part of the Solar cell helps convert the photons from the sun into electrons turning it into an electric current forming electricity. A Solar cell generates electricity by absorbing small particles from the sun called photons and letting them flow through the semiconductors converting the solar energy into electrons making an electric current. When they flow onto the silicon, they knock off all of the atoms. When the electrons fill in the missing spots, it means that the n-type semiconductor becomes positively charged and the p-type semiconductor becomes negatively charged, creating an electric atmosphere across the Solar cell but since the silicon is a semi conductor, it acts like an insulator keeping the electrons and protons steady. As the photons try to throw off the electrons off the atoms, it forms an electric current to all electricity around the cell. Electrons move through the Solar cell by flowing through both of the semiconductors forming them into electricity/electric current.

2. Social implications from the Solar cell are Job Creation, Economics, Health and Oil Dependence. When cities decide to build and create solar energy facilities for their town, it opens up new jobs for citizens and decreases the rate of unemployment. For economics, people conserve energy and save lots of money by using Solar energy instead of other types of electricity, creating a smaller investment towards the electricity bill, therefore enabling families to put more money towards the economy. For health, it creates a more safer, less polluted environment and increases a lower risk of hazardous chemicals being let into the air and lower risk of global warming and over pollution. Solar energy also enables clean, fresher air for the human population. Lastly is oil dependence. Factories that use fossil fuels to generate energy and electricity tend to rely on oil that comes from other places around the world and the money that pays for the oil is sometimes used to support negative things. If the population used Solar energy instead, oil would be reduced and relying on oil from other places in the world would be dismissed.

3. There are tons of good ethical implications for Solar energy. Solar energy decreases risks of pollution and unhealthy air. Solar energy produces more occupation and job openings for the human population. It saves money and reduces polluted energy that comes from oil. It helps save the environment by decreasing global warming. Solar energy saves our economy by not making us pay a lot for the electricity bill due to using Solar energy instead of other types of unnatural energy and power.

4. There are tons of ways that Solar cells can affect our environment. When Solar cells are built and created, some parts of habitat and land get torn down so builders could place Solar cells, destroying animal and plant habitat around the world. When creating Solar cells, there are a lot of hazardous materials being used during this process. If they are not handled properly or put away with care, they could become very dangerous to the environment and the population, but workers are informed clearly to make sure that they dispose the materials safely into the recycling rather than into the garbage. There are no global warming issues that have to do with Solar cells but there are a few warnings with the materials that are being used to create the cells.

(Websites used for Recourses/Sources of Information) Bibliography;
<http://www.physics.org/article-questions.asp?id=51>
<http://peopleof.oureverydaylife.com/social-impacts-solar-energy-8517.html>
http://www.geocities.ws/jenniferastinwadsworth/ethical_issues.html
http://www.ucsusa.org/clean_energy/our-energy-choices/renewable-energy/environmental-impacts-solar-power.html#

