

Solar Power: Free Power for the Future

Our world's energy sources are slowly declining as our supply of fossil fuels grows scarce. Since fossil fuels are non-renewable, we will have no other source of energy to depend on unless we find another solution. Oil and gas are running short, and although coal is readily available, it is harmful to the environment. Engineers need to come up with a solution that people will actually use, while at the same time be beneficial to the Earth's "health". In other words, they need to find the light at the end of the tunnel. Although many possibilities are readily available for engineers, such as wind power and ocean currents, they should focus on solar energy. Solar energy is an ideal solution to the current crisis because there is a plentiful supply, it's an all-purpose energy source that's safe for humans, and it's affordable.

Obviously, solar energy comes from the sun, but what does that mean for *us*? Unlike oil and gas, which will eventually "die out", solar energy will always be "in stock". Although not as profuse in some areas as others, all places are adequately supplied with solar power. As stated in the article, "Make Solar Energy Economical", solar energy only accounts for 1% of the total share of energy we use. The article also states that the Sun gives us 10,000 times as much energy as we actually use. Instead of wasting precious resources such as oil and gas, why not use a resource that never runs out? If solar energy is virtually everywhere, why not take advantage of what it has to offer?

Not only is solar energy in ample supply, it is also useful and safe for mankind. According to the article, "Solar Energy – Energy from the Sun", solar energy has the ability to power calculators, watches, and houses, and heat greenhouses, large buildings

and swimming pools. Solar energy can be converted into heat and electricity through photovoltaic (PV) devices, and can power your microwave so that you can have your burrito for lunch! Even Honda, a car company, has been involved in the making of photovoltaic devices. Although not economically feasible at present, solar energy can also power cars. When this is developed, we can make the world a healthier place to live and make many more scientific breakthroughs. Unlike gas, solar energy has little to no negative effects on the environment, such as releasing CO², so having solar powered cars would be a major achievement.

Solar energy is useful in so many ways and safe for the environment, and is also less expensive than current systems in the long run. Solar energy itself is free because it comes from the Sun, but converting it to electricity and other forms of energy costs money. However, according to the SEIA, photovoltaic devices (used to convert solar energy to electricity) have decreased in price since they were first made, due to “improved research and development, and most of all by steady increases in sales volume.” This essentially means that the more photovoltaic devices sold, the cheaper it becomes to produce. A photovoltaic device costs about \$7/Wp (watt power), and although this may be more expensive than your current system, it has lower overall life cycle costs. A photovoltaic device is cheap when compared to its performance, and the price is diminishing every day. We could get to a point where it will become necessary to utilize the full potential of solar power, so we should start as soon as possible.

Energy is and will become even more of a major factor in the future of engineering, because it's what we live by. Energy is needed in this world so desperately that engineers need to start thinking about renewable sources of energy. We cannot

depend on fossil fuels and non-renewable energy sources forever. Solar energy provides a clean and efficient way to power our lives, and it's time scientists took solar energy seriously as a major source of energy for the future. Until then, we need to concentrate on what we have now, and use it wisely. Remember: it's not only what we use, but how we use it.

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