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CHEM 1002: Caroline Schneider

What do you think is the best alternative source of energy and why?

Solar energy is the best source of alternative energy because it is cost-effective today, is universally beneficial, and solar technological advances have no end in sight.

The price of solar panels have dropped to a point where they are cost effective enough that they will pay for themselves in reduced power bills within a few decades even without subsidies. That usually doesn't matter, though, as a growing number of government programs offer subsidies to for both commercial and residential investments in solar technology.

Everyone benefits by solar energy, even those not in dry, warm climates benefit by the satellites and other spacecrafts moving through space on solar power and reductions in factory emissions. Sub-optimal climates even have solutions like better batteries, solar-tracking panels, and methods to deal with debris like snow or other particles allow solar energy to be effectively captured and utilized. Solar energy could potentially even be turned on in the dark by bouncing sun radiation off mirrors on satellites directed at solar panels on earth or collecting other forms of radiation through similar technology.

The National Center for Potovoltaics keeps track of the progress of solar technology and their latest graph shows how cell technology has steadily evolved over the last 30 years, and more importantly, it shows that even our best efforts still only capture up to 50% of the potential energy. This means current adoption is funding research that will, no doubtedly, lead to more breakthroughs and increase the beneficial impacts future solar investments has on everyone.

http://theenergycollective.com/rosana-francescato/202511/truth-about-solar http://cleantechnica.com/2014/02/25/sun-dont-shine-using-solar-power-darker-climates/ http://www.nrel.gov/ncpv/ (http://www.nrel.gov/ncpv/images/efficiency_chart.jpg)