

It's always sunny

Business



It's Always Sunny On August 28, 1859, the first oil rig successfully drilled oil in Titusville, Pennsylvania. Ever since, oil has dominated the energy market, along with coal and natural gas. Over time, other sources of energy have developed that leave much less of an impact on the environment than the fossil fuels such as oil and gas.

These alternative energies, like solar and wind, are making rapid advancements in efficiency and effectiveness and many call for them to replace fossil fuels in the near future. Is the technology advanced enough to replace fossil fuels and is it economically sensible to do so? Alternative energies have been growing at a rapid pace in terms of efficiency and the amount of power they produce. Only a decade ago, solar power generated 6,000 megawatt hours. " According to the Energy Information Administration, " in 2012 there were 3.5 million megawatt hours of electricity generated by solar photovoltaic panels.

In 2013 that figure more than doubled to 8.3 million Mwh" (Helman). At the rate that solar power is growing at, it will not be too far off until it catches up with a fossil fuel like coal. But alternative energy still has a long way to go before it produces the same amount of energy as fossil fuels. Even with the immense growth of solar energy, it still barely makes a contribution in the overall energy mix in the U.

S. " Indeed, when you factor in all the sources of energy consumed in this country, captured solar power amounts to well less than 1 quadrillion Btu out of an annual total of 96.5 quadrillion" (Helman). Fossil fuels still dominate

the energy market in this country. Oil contributes 36 quadrillion Btu, natural gas contributes 26 quadrillion Btu, and coal contributes 19 quadrillion.

In fact, solar barely produces more power than burning human waste from sewer systems. Solar and wind are still a long way off until they come remotely close to the power generated by any of the fossil fuels. While the conversion from fossil fuels to renewables may take some time, there are certain advancements that need to be made in the technology. Certain studies, such as one from the BP Energy Index, state that “to approach 100 percent renewable energy by 2050, the rate of deployment would need to accelerate by an order of magnitude (factor of ten).” This means that solar companies, particularly the lead ones in China, would need to ramp up production by a very large amount.

Other more scientific advancements would also need to be made, especially in the storage of excess power. Excess power could be used for heating and cooling, like heating water or making ice (Jacobson). These advancements in production and technology could accelerate the change to renewable energies. While solar advances in efficiency and power, it also gets cheaper. Much of these price decreases are due to cheaper manufacturing and more efficient ways of producing power. “Solar is closing in on price parity with the likes of coal — with full-cycle, unsubsidized costs of about 13 cents per kilowatthour, versus 12 cents for advanced coal plants” (Helman).

While solar is becoming almost as cheap as coal, solar generates power much slower than coal and with less efficiency. However, these price decreases mean more people are willing to buy solar energy, giving the solar

companies more capital to improve the technology. But, even with the increased efficiency and price decreases, it will take an immense amount of capital to transfer this country solely to alternative energy. Estimates show that to convert this country to alternative energy would take \$15 trillion, while converting the whole world would take \$100 trillion. The current investment in the energy market worldwide is \$1.5-\$2 trillion every year.

\$286 billion of that was spent on renewable energies. The investments required are massive, and the government subsidies required could cause a multitude of financial and energy issues, from inflation to blackouts.. Some experts estimate that these investments will never pay off, while others say that zero cost fuel is payment enough. In many countries in Europe, there are clean energy laws that put restrictions on cheap and reliable fossil fuels, while heavily subsidizing renewable energies. The intent is to make the energy market more competitive and give renewables a shot.

However, what ends up being the result is that renewable energies drive their prices up, extorting consumers. “ Manhattan Institute scholar Robert Bryce finds that European residential electric rates increased by 63 percent on average during 2005-2015—78 percent in Germany, 111 percent in Spain, and 133 percent in the UK. Germany’s rate of 40 cents per kilowatt hour is more than three times the U. S. average of 12.

5 cents” (Klare). Thus, people end up losing faith in alternative energy because they feel they are given an unfair price. To make people more accepting of alternative energy, lawmakers must make all energy, renewable and fossil, more affordable. Transferring this country, and eventually the

world, to alternative and renewable energy is a tough task. The amount of money that will have to be invested for such an undertaking is massive and extremely difficult to amass. The technological advancements that will have to be made may never be developed.

At the moment, renewable energy will not be able to replace fossil fuels, but in the future it is impossible to predict. The growth of the industry signals that it is possible, but there are too many factors like public opinion and political policies that may obstruct progress. One day, fossil fuels will run out, but that will not happen for some time, and in that time changes will have to be made.