Solar Panels

Solar Panels are a good concept, where there is room for a lot of improvement. Firstly, solar panels are made of solar cells. A solar cell is mostly made out of silicon. Solar cells have 3 parts. The top has silicon with another element that has more electors or negative charge than silicon does. This makes the top side negative. This gives the top layers extra electrons that are free to move, making it more conductive. The thin bottom has silicon with an element that has less electrons such as boron. This gives the bottom layers fewer electrons that are free to move. A missing electron is called effective positive charge, making it positive type. The middle is a place where there is a balance, having the missing electrons being filled with electrons, having no space. (This is uasuly bigger than the other two) When light or sunlight goes through the top layer, or the n-type, and hits the middle an electron with a hole is struck. The electron goes to the top and the hole at the bottom. With the abundance of negative charge and positive charge, this creates electricity. (This can only happen with wavelengths from 350 to 1140 nm, as the others are too long or short.)

One solar cell can produce a few Watts of power. (For running a calculator or phone charger.) One solar panel normally contains 32 cells. A house would need 20 to 25 panels. This would cost a lot of money though at $20k. Solar panels are also heavy at 30 to 50 pounds.

One wind turbine can produce as much as 48,704 solar panels!!!!!

Although moon light could make energy, it makes almost nothing. This could be because the moon is much lower in brightness, having a less than 350 nm wavelength. People could improve on this but much better to focus on the sun.

Few things to improve: (Brainstorm)

Cost

Efficiency (at about 20%)