An Overview of Solar Cells Through The Years

When solar cells first came on the scene in the 1950s, they were simple. Now, there are a wide variety of cells and more are coming as technology improves. An Overview of Solar Cells Through The YearsSolar cells are the basic component of any active system used to convert sunlight into a form of energy. Traditionally, solar cells were used as the key part of panel systems that generated electricity or heat for homes. These days, the technology is used in a wide variety of applications, which means the style of solar cells vary per application. A Hose Bros company traditional solar cell consisted of some very basic pieces. The cell was typically a flat square made up of a glass or plastic panel attached over a crystallized silicone substance. The silicone was imbedded with metal wires. The process worked by having the sun strike the silicone, which kicked off neutrons. The neutrons produced a small electrical current that was collected by the wires. The electricity was in the form of direct current, which had to be converted to usable AC electricity with an inverter. The electricity was then stored in batteries or fed into the grid of the local utility company. The problem with the first solar cells involved efficiency. To be frank, there was not much. Initial cells converted sunlight at a rate of one to six percent. More energy was lost in the conversion from direct current to AC. It worked, but was so inefficient that huge collections of solar cells were required to make enough energy. As technology improved, the components of solar cells became more efficient. A silicone base was still used, but modified to convert more spectrums of the sunlight. As efficiency rose, the cost of using solar cells dropped because less where needed to form a panel. Still, efficiency was in relatively low, making the systems cheaper but not really cost effective compared to buying power from a utility. These days, referring to solar cells is somewhat misleading. Much of the new technology is abandoning the traditional concept of cells. Instead, companies are thinking out of the box and coming up with entirely new platforms. Options include nanotechnology whereby quantum dots are developed to covert the sun to energy. When fully developed, the dots will be part of the paint you use on your house. Technically, you can call the dots cells, but they are not in the traditional understanding of the term. Other options include the use of Germanium as an alternative to silicone, but this hasnt been fleshed out as of yet. Thin solar cell technology is also popular, but involves the basic pieces of a traditional system.Solar cells used to be fairly uniform with silicone, glass cells being the standard. The future of these solar cells is dubious, however, as companies seek out dramatic leaps in solar technology. In 30 years, we will look back at traditional cells like we now look back at the horse and buggy means of transportation.

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