Hydrogen Fuel Cell – renewable energy source

About Hydrogen Fuel Cells

Hydrogen fuel cells resemble batteries, but use a chemical reaction between hydrogen and oxygen to generate electricity, heat, and water. Hydrogen is an abundant element and it is readily obtained from various sources, including electrolysis of water, fossil fuels, and biomass fuels. Some of these methods of producing hydrogen are ecofriendly, but some are not. Oxygen is found in the atmosphere, so it is easily obtained and renewable. The products of the reaction between hydrogen and oxygen (electricity, heat, and water) are clean, with no harmful emissions. The reaction is also very safe.

How Hydrogen Fuel Cells Are Used

The primary use of hydrogen fuel cells is in transportation. These cells can replace fossil fuel burning combustion engines, and therefore reduce harmful emissions and reduce fossil fuel consumption. The cells can also be used to power buildings and portable electronics.

Advantages and Disadvantages of Hydrogen Fuel Cells

There are several advantages of hydrogen fuel cells. They provide a safe, clean energy that is renewable, and the fuel cells are very reliable since they have no moving parts. Once this technology is fully developed, cars using hydrogen fuel cells should be easier to maintain, and won’t even require motor oil. There are currently two important drawbacks to hydrogen fuel cells: first, the fuel is expensive compared to fossil fuels, although the cost is likely to decrease as the technology becomes more common. Second, there are not many gas stations that have the hydrogen fuel available for vehicles with hydrogen fuel cells, which severely limits the use of these vehicles. This is a developing technology with a promising future, but it is not currently a major source of energy in the U.S. or globally.