Nuclear Power vs. Photovoltaic Solar Panels

by HK Chaudhary

Article published on December 14th 2011 | Technology

In the eve of the Second World War, in 1945, two bombs fell on Japan and the world shook. For the first time in all of manâ€™s technological advancements, had we realized just how destructive weapons of war could be. As Japan lay burning and defeated, the War came to an end and nuclear power was realized as a potent force of the 20th century. By the 21st century, we have changed this force from an entity of destruction to a source of power. Power is one of the primary concerns of man, for modern life is impossible without it. For progress and survival, electricity supply has become vital. This is where there is a long ensuing controversy on how photovoltaic solar modules are also a viable source of energy.

Scientists are quite unbiased about the issue of using either nuclear or natural sources of power. In this age of development, technology is tapping into every resource. We are moving towards a huge strain on the energy requirements on the planet. Solar PV systems are just one of the many developments towards green energy. While only a handful of powerful nations have nuclear capability, the sun is accessible to us all. This is why multi crystalline solar modules are by far much more in demand than nuclear energy. But let us study the subject a bit more intricately in context â€“

Quantity vs. Safety

Polycrystalline solar panels are considerably a safe way to generate electricity from the light of the sun. As long as the sun provides sufficient light and radiant heat, the photo electric effect can help a photovoltaic solar panel generate electricity through the photoelectric effect. But this form of energy is both slow in production and very dependent on external factors like weather and climatic conditions.

Nuclear power on the other hand is not affected by any form of changes in the external surroundings. The immense power released in the decay of uranium, plutonium, or other radioactive elements is used to generate steam and thus in turn produce large amounts of electricity. However, nuclear power is extremely volatile and very sensitive. A little flaw in the process can cause a leak or a nuclear meltdown that could destroy entire geographical areas like Chernobyl in Ukraine.

Availability of Resources

The development of both nuclear power and multi crystalline solar modules is quite costly. However, a major difference lies in the procurement of the required materials. Silicon, the main substance required for making polycrystalline solar panels, makes up about 30% of the earthâ€™s crust. Though it is very rare to find in its raw state, this metalloid can easily be extracted for photovoltaic solar panels.

The radioactive elements that are used to generate nuclear power are extremely rare and very costly to process. Most of the radioactive elements came to earth from outer space in our planetâ€™s primordial past. Today, they are extremely costly to make a viable source of power, and hence only a few of biggest nations in the world can afford to develop this form of energy. This factor of easy availability of materials is one of the major reasons for the popularity of photovoltaic solar modules.

Article Source:
http://www.articleside.com/technology-articles/nuclear-power-vs-photovoltaic-solar-panels.htm - Article Side

HK Chaudhary - About Author:
HK Chaudhary (a photovoltaic solar modules manufacturer) is an ecological author who often discusses some of the more controversial topics of technology and progress.

Article Keywords:
photovoltaic solar module, multi crystalline solar module, Photovoltaic Solar Panel, Polycrystalline Solar Panels, Solar PV Systems

You can find more free articles on Article Side. Sign up today and share your knowledge to the community! It is completely FREE!