

“How Energy Powers the Planet”
By Ramya Radhakrishnan

In our fast-paced world, we often fail to recognize the influence of the Earth systems in our daily lives. From hydro-electric to nuclear power, there is tremendous potential in harnessing Earth’s resources to produce energy beneficial to mankind.

One form of energy universally used is electrical energy, produced from Earth systems. For example, hydro-electric power uses the kinetic energy of flowing water (mechanical energy) and is converted into electrical energy. Another source of electrical energy is from geothermal sources. Geothermal reservoirs (volcanoes, hot springs, and geysers) capture energy by tapping into naturally occurring “hydrothermal convection” systems, where cool water seeps into Earth’s crust and steams. The vapor rises to the surface of Earth, and is captured to power electric generators. One common form of energy from our biosphere are fossil fuels, which accounts for 66% of the energy produced in USA. These are non-renewable fuels, produced by the decomposition of plants and animals over 300 million years. They eventually form sedimentary rocks, compressing the peat until it is obtainable as a fossil fuel (coal, oil, and natural gas).

The predicament of using such types of energy occurs when large scale power plants are built to meet ever increasing human energy consumption. For example, emissions from thermal power plants pollute the atmosphere and biosphere, and consume precious hydrosphere resources. The least we can do as children of Mother Earth is advocate the conservation of energy and support alternative renewable methods, like solar and wind power. By spreading awareness about energy conservation, we have the opportunity to preserve our home.

As said by world leader Mahatma Gandhi, we must “Be the change we wish to see in the world”. By following this influential quote, I have no doubt that we can succeed in our journey of conserving energy and preserving our environment.