

**State level Essay Writing competition held on 14th December 2008 at Shilp Gram, Guwahati:**

***First Prize winner :***



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**“Energy Conservation is the only way forward.”**

Energy is the ability or capacity to do work. Energy lights our cities, powers our vehicles, runs our machinery, cooks our food, plays our music and shows us pictures on television.

Energy sources are of 2 types :- Renewable sources and non-renewable sources. Renewable sources, i.e., sources that can be easily replenished and these include solar energy, wind energy, geothermal energy, tidal wave energy, hydroelectric energy and biomass. The non-renewable sources, i.e., sources which are being used up and cannot be replenished in a short period of time and include fossil fuels like coal, oil and natural gas and also nuclear energy.

Over the past century, it has become widened that use of fossil fuels has cause more environmental damage than any other human activity. It has led to the increase in concentration of harmful gases in the atmosphere which has in turn led to other problems like ozone layer depletion and global warming.

The consumption of energy has also increased since the last decade. This is attributed to :- (i) The twofold increase in the consumption of energy by developing countries and (ii) The consumption of more than half of the world’s energy by the developed countries. Also, the number of motor vehicles being used worldwide has more than doubled since 1970.

The energy efficiency factor is also very low. On an average, more than 90% of the energy consumed is wasted in the process of conservation from raw materials to the final energy service. This has led to the fear of encountering an energy crisis in the future. The problem is not that we use energy, but how we produce and consume energy. What we really need are energy sources that will not exhaust and can be used without polluting the environment.

The interaction between energy sources and the population has to be maintained at a balance in order to ensure the continuity of the human race. This can only be achieved through efficient energy conservation and management.

Energy conservation is the process of decreasing the quantity of energy used in work without compromising the outcome. Energy conservation targets the cutting down of energy wastage and facilitates the replacement of non-renewable sources with renewable sources.

Energy conservation is often the most economical solution to energy saving and a more environmentally benign alternative to increased energy production.

The energy consumption of India is very low, but compared to its gross domestic production, the relative consumption is very high. The cost of commercial energy production is also very high, compared to that of other countries. The industrial sector consumes about 50% of the total energy produced. The conservation of this commercial energy, particularly electric energy is very important. It can be achieved from the Supply Side as well as the Demand Side.

From the supply side, which are the production companies like ASEB, electrical energy can be conserved by preventing maximum wastage when electricity is produced and also when it is distributed through high voltage lines. From the demand side, energy can be conserved through efficient utilization of this energy and the use of 'Energy Star' rated products. But conservation alone is not enough. There has to be proper management of energy.

Energy management is a collective term for all the processes used to minimize and control the quantity and cost of energy used to provide a service.

Energy management should not be limited only to the power sector but should include the whole energy spectrum. This includes cooking, lighting, manufacturing, office work, transportation and agriculture. This inclusion of the entire energy spectrum leads to energy efficiency and development, not only in the energy sector, but across all other areas that contribute to national development. The use of national resources to achieve energy efficiency is the quickest route towards sustainable development.

A proper energy management policy should include :-

- \* Setting of a proper energy policy.
- \* User's involvement and awareness.
- \* Minimization of energy wastage.
- \* Optimization of energy efficiency through appropriate technology.
- \* The use of renewable sources of energy.

The above guidelines can be achieved by an individual, an organization or a country, by tailoring it according to their needs.

Energy conservation has become a national priority for a long time, but concrete steps have not been taken and the few which have been taken lack perspective and determination. Energy conservation and preservation has now become the need of the hour, and people on their part should try their best to conserve and preserve energy for ourselves and the generations to come.