1.Hydropower is one of the most popular renewable energy sources in the present time.

In the hydropower plants the kinetic energy of the speedy water flow helps to spin the electricial turbines,and this spinning turbines generates electricity.

In this whole process the kinetic energy turns into electricial energy.

But there are many limitations too:

i)The energy production amount is not that great to use it for the commercial energy production.

ii)The initial expenses is way too much for establishing a proper hydroelectricity plant.

iii)Speedy water flow is mainly available in the higher altitudes, that's why the establishment process also becomes difficult in these higher altitude regions.

2. 12 to 14 km/hr is the minimum speed. For full capacity, 50 to 60 km/hr is needed and the windmills must be stopped 90km/hr to avoid any damage

3. Sulphur dioxide, sulphur trioxide, nitrogen monoxide

4. For it to be a complete solar cooker actually it needs glass covering on the top to create an a Greenhouse effect so you really need a glass over it and you can conclude that the one which is having is more efficient.

5. Geothermal energy is the heat energy from hot rock present inside **the earth**. The rocks at some depth below the surface of **the earth** are very, very hot. This heat comes from the fission of radioactive materials which are naturally present in these rocks. **Geothermal energy** is more environmentally friendly than conventional fuel sources such as coal and other fossil fuels. In addition, the carbon footprint of a **geothermal power** plant is low. While there is some pollution associated with **geothermal energy**, this is relatively minimal when compared to fossil fuels.

6. Biogas is a mixture of methane, carbon dioxide, hydrogen and hydrogen sulphide. The major constituent of biogas is methane.  
Biogas is produced by the anaerobic degradation of animal wastes like cow-dung or plant wastes in the presence of water.  
The biogas plant has a dome-like structure built with bricks. A slurry of cow-dung and water is made in the mixing tank from where it is fed into the digester. The digester is a sealed chamber in which there is no oxygen. Anaerobic micro-organisms that do not require oxygen decompose or break down complex  
compounds of the cow-dung slurry. It takes a few days for the decomposition process to be complete and generate gases. The biogas is stored in the gas tank above the digester from which they are drawn through pipes for use.

* 7. Solar energy is radiant light and heat from the Sun that is harnessed using a range of ever-evolving technologies such as solar heating, photovoltaics, solar thermal energy, solar architecture, molten salt power plants and artificial photosynthesis.Various devices based on solar enrgy:
* **Solar** air conditioning.
* **Solar** balloon.
* **Solar** charger. **Solar** backpack. **Solar** cell phone charger. Strawberry Tree.
* **Solar** chimney.
* **Solar**-powered waste compacting bin.
* **Solar** cooker.
* **Solar** dryer.
* **Solar**-powered fan.

The food is cooked in a shallow vessel of the container. The box has a transparent covering of glass sheet over it. The **solar cooker** is placed in sunlight and reflector (plane mirror) is adjusted in such a way that a strong beam of sunlight enters the box through the glass sheet. Limitations of solar energy are

* Cost. The initial cost of purchasing a **solar** system is fairly high. ...
* Weather Dependent. Although **solar energy** can still be collected during cloudy and rainy days, the efficiency of the **solar** system drops. ...
* **Solar Energy** Storage Is Expensive. ...
* Uses a Lot of Space. ...
* Associated with Pollution.

8. methane

9. The greenhouse effect is the process by which radiation from a planet's atmosphere warms the planet's surface to a temperature above what it would be without this atmosphere. Radiatively active gases in a planet's atmosphere radiate energy in all directions.

10. Because it is based primarily on methane, it can be combusted without releasing too much carbon into the atmosphere. This makes **CNG** a much more **environmentally friendly fuel** alternative to petroleum and gasoline.

11. It contains about 65%of methane and widely **used** as fuel for cooking . The **slurry** obtained as a by product , **left** in the **biogas plant after** the **biogas** is **used** up can be **used** as a manure, which is rich in nitrogen and phosphorous

12. The **increase in demand** of **energy** is **affecting our environment** in many ways : 1. Combustion of fossil fuels is producing acid rain and damaging plants, soil and aquatic lif

13. fission

14. The two materials used for making solar cells are **silicon** and Cadmium Telluride. EXPLANATION: The 'solar cell' also known as 'photovoltaic cell' has the capability of converting 'light energy' into electricity. This is done by a mechanism known as 'photovoltaic effect'

15. When **fission** occurs, the nuclei of the fissile atoms (usually uranium or plutonium) split into smaller nuclei. The sum of the masses of the smaller nuclei is less than the mass of the original uranium or plutonium nuclei - not by much, but enough to matter.