

BIOMASS ENERGY: ADVANTAGES AND DISADVANTAGES

What is Biomass Energy?

Biomass means all materials which come from living organisms. For instance, waste material of plants and animals, wood, agricultural wastes, dead parts of plants and animals. Since all living organisms contain carbon compounds, biomass has energy stored in the form of chemical compounds. The method of harnessing energy from each one of them could be different. Direct burning of these materials generally causes pollution but could be the cheapest form of energy. Eg. Using wood or dried cow dung cakes as fuel generates a lot of smoke.

However, if cow dung is used in biogas plant, clean fuel can be generated. Mostly in villages, all types of biomass are traditionally burnt directly to produce heat. And if modern methods are used, they can be utilized properly.

Let's talk about advantages and disadvantages of biomass energy.

Advantages of Biomass Energy

- 1) It's a renewable source of energy.
- 2) It's a comparatively lesser pollution generating energy.
- 3) Biomass energy helps in cleanliness in villages and cities.
- 4) It provides manure for the agriculture and gardens.
- 5) There is tremendous potential to generate biogas energy.
- 6) Biomass energy is relatively cheaper and reliable.
- 7) It can be generated from everyday human and animal wastes, vegetable and agriculture left-over etc.
- 8) Recycling of waste reduces pollution and spread of diseases.
- 9) Heat energy that one gets from biogas is 3.5 times the heat from burning wood.
- 10) Because of more heat produced the time required for cooking is lesser.
- 11) Pressure on the surrounding forest and scrubs can be reduced when biogas is used as cooking fuel.
- 12) It is a more cost effective means of acquiring energy as compared to oil supplies. As oil supplies are getting depleted day by day, it is becoming a costly commodity.
- 13) Growing biomass crops use up carbon dioxide and produces oxygen.

Disadvantages of Biomass Energy

- 1) Cost of construction of biogas plant is high, so only rich people can use it.
- 2) Continuous supply of biomass is required to generate biomass energy.
- 3) Some people don't like to cook food on biogas produced from sewage waste.
- 4) Biogas plant requires space and produces dirty smell.
- 5) Due to improper construction many biogas plants are working inefficiently.
- 6) It is difficult to store biogas in cylinders.
- 7) Transportation of biogas through pipe over long distances is difficult.
- 8) Many easily grown grains like corn, wheat are being used to make ethanol. This can have bad consequences if too much of food crop is diverted for use as fuel.
- 9) Crops which are used to produce biomass energy are seasonal and are not available over whole year.

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