Energy it is a cost effective method



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Energy efficiency is basically using little amount of energy to provide the same service. It is important to note that energy efficiency is not energy conservation. Energy conservation entails reducing or foregoing a service with an aim of saving energy. It is a cost effective method of attaining a sustainable energy.

It is advantageous to a given economy in that it reduces fuel cost, hence improving consumer welfare. In addition, it increases the competitiveness. It is also environmental friendly since it reduces greenhouse gas emission and general air pollution. Energy efficiency therefore, is associated with economic efficiency. It encompasses technological, behavioral as well as economic transformation.

Energy efficiency can be achieved through upholding individual behavior of avoiding unnecessary consumption and using the appropriate equipment (Beckman, 2009). The principles governing energy saving are to promote minimum usage of energy with an aim of saving energy and encouraging the use of renewable forms of energy. There are some disadvantages associated with using fossil fuels as electricity and fuel. These include pollution of the environment. Burning of fossil fuels produces carbon dioxide which results to greenhouse effect.

This contributes to global warming. In addition it produces sulphure dioxide which creates acid rain that is harmful to the environment. The use of renewable energy as electricity and fuel is also disadvantageous. It is costly since it requires new technology which is expensive to install. Moreover it produces less amount of energy as compared to non-renewable sources such as fossil fuels.

Renewable Vs. Non-renewable Energy

Renewable energy is that which is self sustaining. They include: sun, wind, Biomass, water and Geothermal. On the other hand, non-renewable energy sources cannot be replaced. They include: natural gas, oil, coal, Hydrogen and Nuclear.

Active and Passive Solar Energy

Active solar system uses mirrors and metal plates to absorb the heat energy. Its pros include saving energy costs, environmental friendly and it can be used in remote areas.

Its cons are that it is not reliable; it produces little energy and cannot serve many people at the same time. Passive solar energy system acquires its energy through sunspaces and walls. This energy is used to heat water and space heating and cooling (Hackler, 2002)

Wind Energy

Its advantages are that it is environmental friendly; it is applicable in remote places and that it is efficient especially when it uses the modern technology. Wind energy is disadvantageous in that the wind is unreliable, it produces less energy than fossil fuels and finally the turbine construction can be expensive.

Hydropower

Some of the advantages of hydropower are that Dams producing the electricity last for decades hence ensuring constant supply of electricity. In addition this water can be used for other purposes and the method does not pollute the environment.

However the source has got disadvantages which are: dam construction is expensive, geological damage in case of large dam construction and risk of flooding which causes death and pollutes the environment.

Biomass

The benefits of biomass are that it is inexhaustible energy; it has less environmental pollution and is readily available for large population. Its limitations are that it is expensive, it is only profitable to a large population and it can pollute the environment when burnt directly. Examples of biomass are Methane from waste and alcohol from starch.

Barriers to Overcome

For U. S. to achieve carbon free energy within 10 years we must produce electricity from renewable and sources that are carbon free. Drilling oil would also address the price of gasoline. We should end oil dependence and use renewable sources. To further these goals I would push for the implementation of policies that govern energy and environment. I would also encourage people to use alternative sources that do not produce carbon dioxide. Finally I would call on government to fine those who emit carbon dioxide.

References

Beckman, J. (2009). Energy Efficiency.

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