

An Overview of Renewable Energy

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Abstract- The Renewable energy is very important, many type of Renewable energy is Wind Energy, Geothermal Energy, Bio fuel Energy, Solar Energy, Tidal Energy etc. The advantages of Renewable Energy, Project is beneficially in regional areas, less maintenance than traditional generator etc. The main disadvantages of Renewable Energy, Cost of renewable energy is also far in excess of fossil fuel, difficult to generate the quantities of electricity, reduce amount of energy, reliability of supply etc. Application of the Renewable Energy is Biomass briquetting, high efficiency wood burning stoves, micro hydel, solar water heater, air heaters, solar dryers, wind electric generators, solar cookers etc. The renewable energy is very helpful to human life.

Index Terms- Renewable Energy; Wind Energy; Application of Renewable Energy

1. INTRODUCTION

1.1 Renewable Energy

Renewable vitality is the energy produced from natural assets like wind, sunlight, shower, geothermal heat and waves, which are obviously refilled. Renewable vigor machineries collection from wind power, solar power, biofuels and biomass for carriage.

2. HISTORY OF RENEWABLE ENERGY

1st time in the growth of petroleum in the intermediate of 19th century. In the form of customary biomass to petroleum passions, periods from 790,000 years ago. Usage of biomass aimed at passion did not developed every day until numerous 100s of 1000s of years later, earlier amongst 200,000 & 400,000 years previously. Possibly the additional oldest tradition of renewable vigor is yoking the wind in instruction to drive vessels over liquid. A diagram of vigor use in the Unified Conditions up till 1900 shows lubricant & natural air with around the similar location in 1900s as airstream & stellar played in 2010.

3. TYPES OF RENEWABLE ENERGY

Many type of Renewable Energy

- Wind Energy
- Biofuel Energy
- Geothermal Energy
- Wave Power
- Hydropower
- Solar Energy
- Tidal Energy
- Biomass Energy etc.

3.1 Wind Energy

Airflows can be charity to run airstream turbines. Current utility-scale airstream turbines assortment from about 600 kW-5 MW of valued influence, though turbines with regarded yield of 1.5-3 MW must developed the most mutual for profitable usage, the command accessible from the airstream is a purpose of the dice of the airstream speediness. Typically occupied load periods of airstream turbines between 16% & 57% yearly.

3.2 Solar Energy

Solar vigor, glowing light and warmth since the sun, is yoked using a variety of ever-evolving skills likewise solar heating, CSP, photovoltaics & CPV. Energetic solar tools include solar current energy, by solar accumulators for reheating & solar influence changing sunlight into energy either straight by PV.

3.3 Bio Energy

Biomass is living material resulting from corporeal. It most frequently refers to floriae, which are exactly called as lignocellulose. An vigor spring, biomass can whichever be used unswervingly via ignition to yield heat after changing it to numerous forms of biofuel. Change of biomass toward biofuel can be completed by dissimilar systems, which are approximately categorized into chemical, biochemical and thermal approaches. In the logic, biomass comprises shrub or animal substance that can remain changed into filaments, with biofuels.

Manufacturing biomass can be developed from several types of floras, counting miscanthus, poplar, sugar cane willow, bamboo, sorghum & a variation of tree classes, fluctuating after eucalyptus to lubricant palm oil.

4. ADVANTAGE OF RENEWABLE ENERGY

- It is sustainable
- It is renewable
- Less maintenance than traditional generator
- Produces no waste products like CO₂
- Minimal impact on the environment
- Project is beneficially in regional areas

5. DISADVANTAGE OF RENEWABLE ENERGY

- It's difficult to generate the quantities of electricity
- Reduce amount of energy
- Reliability of supply
- Rain to fill dams to supply H₂O
- Wind to turn the blades
- Cost of renewable energy is also far in excess of fossil fuel
- Large capital cost
- Large tracts of land required

6. APPLICATION OF RENEWABLE ENERGY

- Solar water heater
- Air heaters
- Solar dryers
- Wind electric generators
- Solar cookers
- Gasifier engine pump sets
- Stirling engine pump sets
- PV tracking system
- Backup system
- Solar water pump
- Biomass briquetting
- High efficiency wood burning stoves
- Micro hydel

CONCLUSION

The Conclusion of my research is The Renewable Energy is very important in the Present & future of the human World.

ACKNOWLEDGMENT

I am very heartfelt thanks to Prof (Dr) Munawar Alam, Prof. (Dr) Naimur Rahman Kidwai, Er Shailendra Kumar and Er Akhlaque Ahmad, Er Qamar Alam & Ahmad faiz Minai supporting of my work.

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International Journal of Technical Research & Science

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