

Review on Design And Manufacturing Of Three in One Electricity Generator From Renewable Energy Sources

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ABSTRACT:- In entire world the non-renewable energy source, for example, coal, petrol, diesel are non-renewable, that they drawn from limited assets and they are lessen because of that reasons we have to get some sustainable power sources from we can create the power. Some inexhaustible sources like sun oriented, wind and water we can consider as an innovative alternative for creating clean vitality. This paper speak to the sun based, wind and pressure driven cross breed three out of one vitality generator. These three of every one generator framework is helpful are reasonable for industry and furthermore residential zones.

1. INTRODUCTION

Sustainable power source is gotten from common procedures that are renewed continually. In its different structures, it gets straightforwardly from the sun. Incorporated into the definition is power and warmth produced from sun based, wind, sea, hydropower, biomass, geothermal assets, and biofuels and hydrogen got from inexhaustible assets..

The three out of one power generator from supportable power sources in which we make the power by using mix of daylight based, wind and water driven imperativeness. In which the system is tree like advancement and the sun constructed plates are mounted in light of branches, after that supply tank is given at the best and vertical breeze and water controlled turbine mix is used to create the power these power store in the battery

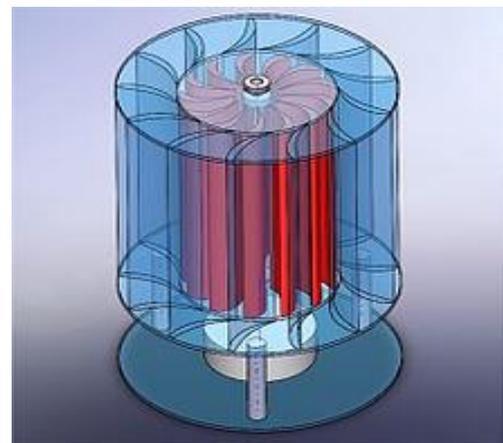
1.1 Solar system



(Fig.1.1.1 Solar system)

As show in the above figure solar system. The system has solar cells made of a strong semi-conductor material which is found in abundance on the surface of the earth. The cells are then wired together forming solar panels, which are subsequently wired to a circuit. When the sunlight strikes these silicon cells, these panels generate electric current, which is connected to an external load and powers exit. A single solar cell is not enough to produce sufficient electricity; therefore multiple cells are connected to each other to form a array of cells called solar modules or solar panels. Several solar cells or solar modules are again connected to each other to form a PV array. This is a basic framework model for producing electricity and number of panels can be connected to produce the desired electrical output.

1.2 Vertical wind mill

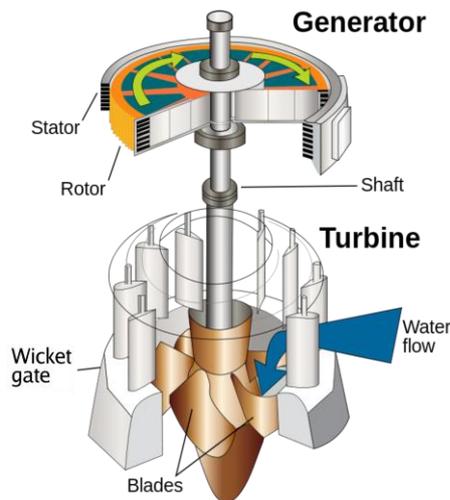


(Fig 1.2.1 vertical wind mill)

The dynamic vitality of the breeze is changed over into rotational vitality utilizing vertical hub wind turbine which is either coupled specifically or through apparatus. Rotational energy from the turbine is converted into electrical energy by the permanent magnet synchronous generator whose output is fed to an IGBT based chopper. Since the wind speed is vary, the output of the generator will be varying frequently.

1.3 Vertical hydraulic turbine

Hydro Energy is very similar to “Wind Energy” in that a renewable energy source, in this case “water”, is used to rotate a turbine generator to produce electricity. The kinetic energy produced by the moving water is converted into either mechanical energy to perform some work or directly into electrical energy by means of an electrical generator, and this then is the basic science behind Hydro Energy production.



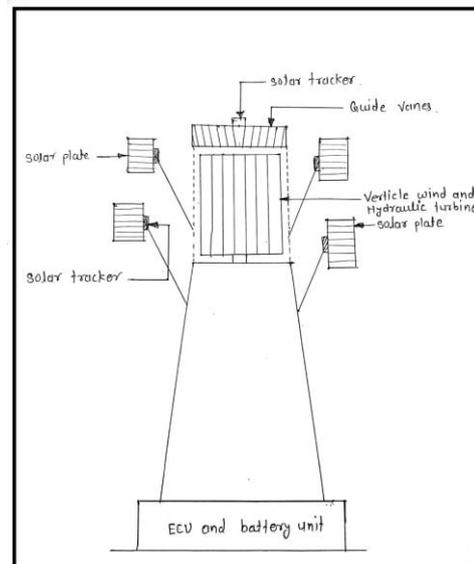
(Fig.1.3 .1 vertical axis hydraulic turbine)

2. OBJECTIVE

The three in one electricity generator from renewable energy has different number of parts are assemble. The part list as show in below the table

Table -1:

Sr.no.	Name of part	Quantity
1	Tank	1
2	Solar plates	6
3	Solar trackers	6
4	Vertical Wind mil	1
5	Gear box	1
6	Hydraulic turbine	1
7	Pedestal bearing	2
8	Alternator	1



(Fig.2.1 Combination of solar, vertical wind and hydraulic system)

The above fig shows the combination of three energy sources such as wind energy, solar energy, and Hydraulic energy. In that at top we place the solar plate and solar tracker. Also we use a vertical wind mill and vertical hydraulic turbine. The energy generated from that system is store in a ECU and battery unit.

3. CONCLUSIONS

- 1) From this we can obtain energy easily.
- 2) They generate energy in all three seasons.
- 3) This also use in industrial area.

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