

## GENERATE YOUR OWN ELECTRICITY PROJECT

By: PRIYA

Our resources are limited. It depends upon us how we utilize limited resource and take maximum advantage of it. Due to the over population there is a big demand of electricity and water and there is a big shortage of electricity and water resources. There is a big gap between demand and supply. So it is badly felt for the search of other alternative source of energy and we are looking for the other conventional source of energy such as solar energy, coal, petroleum, bio energy, LPG gas, wind energy, tide energy and hydrogen fuel etc.

To defuse the energy crisis in the country and the world I have made a proposal for the generation of electricity by the people to meet their daily needs of electricity and the name of the project has been named as **GENERATE YOUR OWN ELECTRICITY PROJECT** as the name itself is stimulating and sounds its worthiness. This method is eco- friendly, cost effective and can defuse the power crisis to a large extent if seriously implemented by the government and other organizations in the world. A clause should be included in the building by-laws to make the project successful. This clause should be made compulsory to all building owners. The idea is feasible and there is no harm to implement this idea for power generation when we are exploring all possible means for generation of electricity and this system is useful to the entire world.

Now I would like to explain the concept/ technique. This technique is useful in the large buildings, multiplexes, apartments, schools, hospitals, office buildings, factories, malls and shopping complexes and housing societies and most suitable to the high rise buildings. In this method water is collected or stored at a higher elevation and led downward through pipes or tunnels specially constructed in the buildings for this purpose to lower elevations are known as head. In the course of its passage down the steep pipes, the falling water rotates the turbines. The turbines in turn drives the generators which convert the turbines mechanical energy to the electricity and the under ground portion of the buildings can be used as power houses. In this method rain water is collected on the top/ roof of the building and stored in the tank on the roof during the rainy season and the water is brought down through the pipes which comes out with tremendous force and rotate the mini wheels fixed on the ground. The guessing power of the water rotates the wheels and the moving wheels run small turbines which and can generate electricity in small capacities and can meet the daily requirements of the electricity of the building and can also save extra power and use mini transformers to supply the electricity to other locations. This technique is very useful during the rainy season due to plenty of availability of water and the places where rainfall is heavy. This process can also be repeated when there is no rain with the stored water which can be again be pumped to the roof tank and can be brought down a number of times and can be repeated to generate electricity .By spending a few lakh of rupees a building owner can generate his own electricity. This system can also be applied in the villages where huge water tanks can be constructed for generating their own electricity for the village and people cooperation is very much essential for the success of such projects local govt. and panchayats can play an important role to generate electricity. This idea is useful to those

countries and cities where there is no plenty of land is available and high rise building is the only option to accommodate the increasing population. These high rise buildings can work as waterfalls and can produce more electricity. In such high rise building mini power houses is the only solution to meet the demand of electricity. I visualize high rise building is the future and the mini power houses will be the answer for electricity. There will be an initial cost for funding of such projects but it is very less in comparison to its advantage to the people. I visualize this project in all high rise buildings in future for power generation.

We can also take advantages of **wind energy** in the buildings. Air is available us in plenty in nature. We should tap this potential energy. This system is useful to the small and big buildings. In this system wind mills are installed on the top/ roof of the buildings even the walls of the building. This is a environmental friendly technique, cost effective and useful method to tap the wind power in the buildings which otherwise going waste. Efficient and cheap and affordable technology can make this project popular and successful and we can produce electricity for our daily requirements.

There are other popular methods like **solar energy system** in the buildings to produce electricity. The the building should be designed in such a way so that it can absorb maximum heat of sun during day time By applying these methods we can take advantage of these three systems in the same building or choose any other affordable System for the generation of power in the building. Big malls are coming every where and these shops requires full lightning systems during night hours. For such malls the concept of Generate owns electricity is very useful they can produce their own electricity and meet their demand for the use of Lift, AC, Lamps, Water boiling, use of press and other appliances, gadgets, pumping of water and other daily uses etc in the buildings.

Similarly in hilly places where rivers, streams and nallas and are available and flooded in the rainy season villagers can construct their own mini power houses and can meet their demand for electricity. Villagers can also form co-operative societies for the rural electrification. In hill areas plenty of gharats and floor mills are available which work on water wheels. After some modification and use of latest techniques/ methods these chakkis, gharats and floor mills can be converted in to mini power plants and can work both as floor mills and power houses to produce/supply electricity to the adjoining villages. The tiny water wheels that were traditionally used for milling of grains should be set to double up as hydel power stations in the country. Govt. should do an overdrive to promote these eco-friendly projects. Individuals should be encouraged to set up their own individual power plants. This will also open a new window for self employment as the gharats and floor mills and the generator will work simultaneously without upsetting the ecology. The aim is to safe guard the environment. Generation of electricity in this matter will be sufficient to meet the power requirement of a household and can also be used to meet he requirement of the village. There are lots of places where water wheels are used for grain milling in the country. By applying affordable technology to most of these, we can generate energy and gainfully employ peoples. Modification of the water wheels requires a few thousand rupees. This is a clean and green method of power generation. I will like to suggest the govt. the following measures to be taken to make this project successful:

1. Govt. should give at least 80% subsidy to the user of this project.
2. Easy availability of loans from the local banks on easy terms.

3. People should be motivated to adopt this project.
4. Conducting of Training and workshops on this project.
5. Necessary guidelines and information may be provided to the people.
6. Affordable and efficient technology and infrastructure may be provided.
7. A department may be established to render necessary help and technical guidance.
8. Awards and incentives should be instituted to the best performers.
9. Govt. should make of make power generation in big buildings compulsory one can opt all three methods or any one or two methods of his choice for power generation in the same building ( ie hydel, wind or solar).
10. Private Sector should be encourage to produce electricity on BOO (build, own , operate) basis and PPP public private participation should be encouraged.
11. Rivers, Streams, Canals, lakes and other places should be identified for mini power projects in the country.

Besides this states should also set up eco-friendly hydel- power projects with a capacity up to 25 MW These power projects are eco friendly and do not require construction of any dam, uprooting of forests and trees and disturbing wild life and will be able to produce about more than 700 MWS of electricity. We should also find out other source of energy and use other efficiency methods to save electricity like energy efficient buildings, installation of solar panels, use of batteries to store the energy in buildings and use of energy saving gadgets etc.

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**Concept/ project by: Copy Right with Priya (innovator)**

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Note:-

This Project has been recognized internationally by GE:Ecomagination Challenge and posted in TakingITglobal and Spirit of Innovation award websites.