

## Artificial Hydro Power Generation

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### **Principle:**

Flowing water or falling water potential energy can rotate turbine. All hydropower is generated by this method. Turbine is rotated either hydropower or steam power. Turbine shaft is connected with alternator with gear system for the power generation. This is the common theory followed in all systems.

### **Method:**

Water will be pumped into the turbine at the rate of 100 liters per second from the bottom water tank. This water potential energy will rotate the turbine and after rotating first turbine water will fall into second turbine and rotate it. Like that series of turbine can be operated to generate electric power.

### **Presently executed project;**

As of now we have tried several methods more than ten to generate electricity by using water potential energy as a source. All the methods we got power but not as expected or profitable. First we used five kilo watt firefighting pump and injected water through narrow nozzle on turbine blades but the power generation was only 2.5 kilo watt. It was not economical. Then we have decided to increase the water pressure. We installed another 5 kilo watt pump. We run the project by belt system as well as gear system but all were not profitable. By this system we can generate power at only one place that to not profitable. Based on this experience we came to understand that the same water can be used in different stages and generate more power which will be more profitable.

**Figure 1**

Now by operating these two pumps water is allowed to fall into the turbine at the rate of 100 liters per seconds. By the weight and force of water, turbine is running expected speed. Turbine shaft both the ends are fixed with 150 teeth sprocket wheel which is again connect with 30 teeth sprocket wheel by chains to increase speed.

In the middle of the 30 teeth shaft one 100 teeth sprocket is fixed which is again connected with another 30 teeth sprocket by chain. This 30 teeth shaft another end is fixed with 100 teeth sprocket which is again connected with 30 teeth sprocket alternator shaft. This sprocket system increases the speed of alternator. By this we are able to generate 20 kilo watt power.

**Gear System:**

The turbine shaft both end will be fixed with 150 teeth sprocket which will be connected with 30 teeth sprocket by chain. 100 teeth sprocket will be fixed in the middle of 30 teeth sprocket shaft. This 100 teeth sprocket will be connected with another shaft having 30 teeth sprocket and 100 teeth sprocket. This 100 teeth sprocket will be connected to alternator of 30 teeth. Alternator rpm is 1000 or 1500.

$150/30=5$ ,  $100/30=3.3$ ,  $100/3=3.3$ .  $5 \times 3.3 \times 3.3 = 54.45$ . If turbine rotates one time alternator will rotate minimum 50 times. So 1500 rpm require 30 rotations. 1000 rpm requires 20 rotations



**Figure 2**



**Figure 3**

**Material required:**

<b>Particulars</b>	<b>Cost one unit</b>
1. Bottom water tank 20 kl	1,00,000
2. pump 2 no 50 liters / sec	1,00,000
3. Alternator 20 kw 1 no	75,000
4. Alternator stands 1 nos	5,000
5. Turbine 1 nos	1,00,000
6. 4 kl water tank above turbine 1 nos	15,000
7. Sprockets 150 teeth 2 nos	20,000
8. Sprockets 100 teeth 2 nos	6,000
9. Sprocket 30 teeth 4 nos	3,000
10. Sprocket connecting chain.	10,000
11. Pipe line	10,000
12. 10 kva UPS 1 no	1,00,000
13. 5x5 meter 1 floor building	3,00,000
14. Stand & Shaft	10,000
15. Erection charges	100,000
16. Salary	2,00,000
	<b>11.54,000</b>

*For three stage production minimum 40 lakhs required.*

**Figure 4**

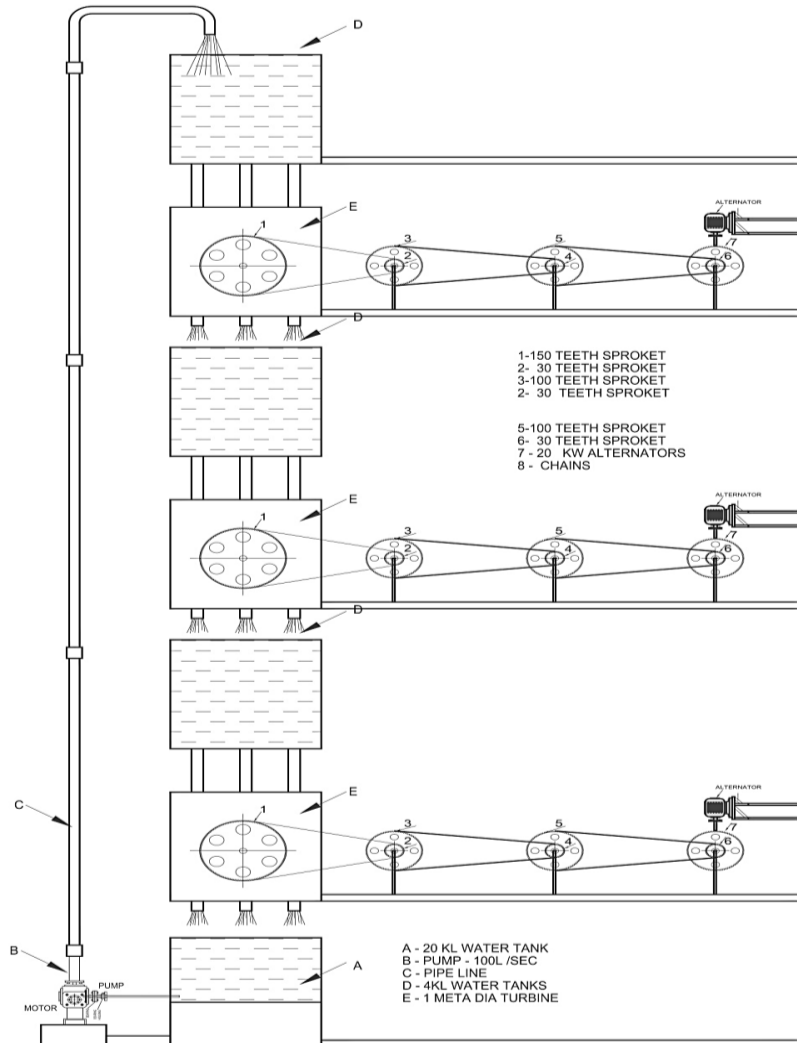
The above unit anywhere we can construct big and small industries, villages where electricity is not available. And also for irrigation purposes, big institutions and hospitals. Using this system all places we can generate power and distribute electricity easily. EB charges will not be a burden. Photos and drawing attached herewith.

**Proposed project:**

By using above method we can generate power at three stages which is more profitable. This is highly feasible. Following is the method. Turbine will be one meter diameter and one meter length having five box of fifty liters capacity each. There will be three turbines in one unit Above each turbine there will be 4 kl water tank, (2meter Lx2meter Hx1meter w ) from this water will fall into the turbine. Water will be pumped to the topmost tank from this water will fall into the first turbine that is into the top most turbine. After rotating the turbine water will fall down into second

turbine so that the second turbine also will rotate. After rotating second turbine water will fall into third turbine and will rotate it. So that three turbines will rotate simultaneously. All the three turbines shaft will separately connected with 20 kw alternator with serious of sprockets and chains. By this we can generate 60 kw. 10 kw power will consumed by two pumps so the net power will be 50 kw

After rotating turbines the water will go through canal and fall into the bottom water tank. So the same water will be reused for continuous power generation. The above project shall be executed and demonstrated for the public for the usage. Otherwise it will not come to the usage. For this government help needed financially as well as land and execution. Near my research centre there is a vacant porampooku land in Gnaeru panchayat at Attapallayam road, which can be utilized. This project needed nearly 40 lakhs. Government should help for this project come to the market. So for I spend more than 50 lakhs for this research purpose. But this project shall be launched at the earliest for the benefit of the society.



**Figure 5**

**Mega projects at sea shores.**

We can construct thousands of unit at sea shore where water is always available. By increasing turbine size and pump capacity we can achieve desired kw. If 500 liters per second fall into the turbine it will generate 100 kw. Three turbines will generate 300 kw. If 50 kw is used to run pumps 250 kw is the net power.

At sea shore we can avoid noise and water problem and safe. The height of the unit will be 12 to 15 meters from ground floor. Ground floor, first floor and second floor area will be 5 meter x 5 meter. But system shall be protected from cyclone and tsunami by constructing protection wall.

To generate 2000 mw from kudankulam nuclear power plant the initial investment was 17,254 crores. But by the above system the investment will be only 8,000 crores for 2000 mw. One unit will generate 250 kw and cost will be one crore. Four units will generate 1 mw. 8000 units will generate 2000 mw.

There is no other raw material requirement. Technology is very simple, easily repairable and less maintenance. To maintain the plant manpower requirement will not be so expensive. One unit can run 18 hours a day. There won't be total shutdown since one unit can be repaired while other units are running.

India has vast sea shore where each state can construct thousands of units and generate the required power. Throughout the world we can generate power like this.

If 1500 liters falls on turbine it will generate 250 kw power.

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