

RENEWABLE ENERGY - A TOOL TO LIGHTEN UP INDIA

Management Insight

13(2) 68- 72

<https://doi.org/10.21844/mijia.v13i02.11271>

Saroj Vats*

Email : saroj_vats@yahoo.com

ABSTRACT

When the first bulb was invented by Edison, the dream was to make people free from holding petrol lamps, to give them a freedom to utilize night, to give players a chance to play in beautiful night with no worries of dawn. Gramjyoti yojna of Government of India also having same motives. India also need not only renewable energy, clean energy but high amount of energy. Still 70,000 villages are living in dark. Villagers and students have to sacrifice nights. Wind, hydro and solar energy are the key to clean renewable energy targets. Indo-china both the countries are fighting for development due to huge population inferences and the competition is neck to neck. launch of prime minister's ambitious plan of "make in India" is showing glimpse of the courage and dream – solar trains, solar parks, solar lamps etc., needs appropriate and with full facilities of infrastructure as well and energy as a major production component.. The Jawaharlal Nehru Solar Mission is a major initiative step for encouraging the production of solar energy. The Government of India and the State Governments promoting ecologically sustainable growth through renewable energy. It will help not only in fighting the challenges of climate change as well as helps in enlighten the life of rural India too. The positive possibilities of doing business in India and the growing interest of companies are noticeable in Business Claimant Survey 2015-16. Changes in the perception of companies in India providing stable, predictable business environment are steps to take. This paper discusses about cost of renewable energy, production technique, establishment knowhow, importance of solar energy (particularly for India), economic and environmental benefits, issues and prospects of solar energy and Governmental efforts

Key words : Renewable energy, Environment, Solar energy

INTRODUCTION

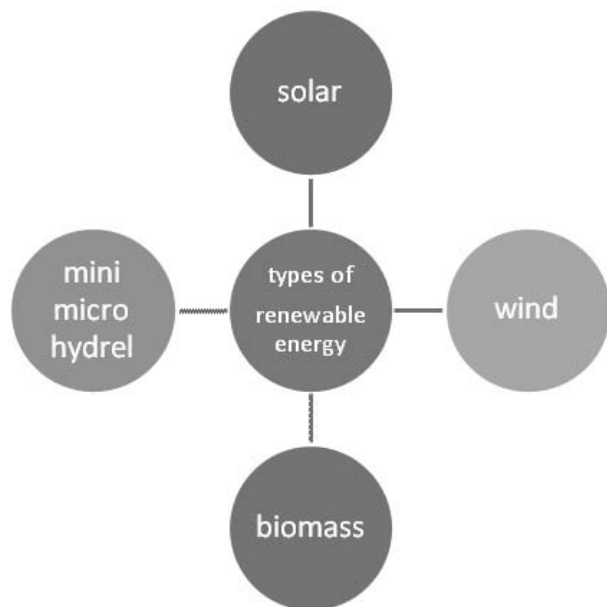
'Energea' is the Greek word for energy, its meaning is in or at work. In physics, energy is a property of objects, transferable among them via fundamental interactions, which can be converted into different forms of utilization and needs but we cannot create or destroy this energy. Therefore energy can be changed one to another from, although, energy within the system cannot be created or destroyed but it can be transformed. That's really what we mean when we say we are "Using" energy. The law of conservation of energy means that when energy

is being used up. Instead, it is being changed from one into another. Solar cells change sunlight (radiant energy) into electrical energy.

In perentime we are producing and using 4 types of energy.

The other sources energy are also available but they are in initial phrase, like wind firm, tidel firm etc. But one of the major tropography constraints in popularising renewable energy is its high productionn cost in comaprison of coal. Does matter in case of energy generation? In India per capita demand for primary energy is 775 million tons of oil, 44% of coal , 24% out of

* Associate Professor, Swami Sahajanand School of Management, Bhavnagar (Gujarat)



Source- author’s conceptualisation.

biofuel, nuclear is hardly 1 % where as renewables stands nearly for 2 %. As per estimates of IEA india energy outlook it is as under-

The major thurst is to make the energy available to the households because we stand even far behind africa and many southeast asian countries in per capita energy demand. For india

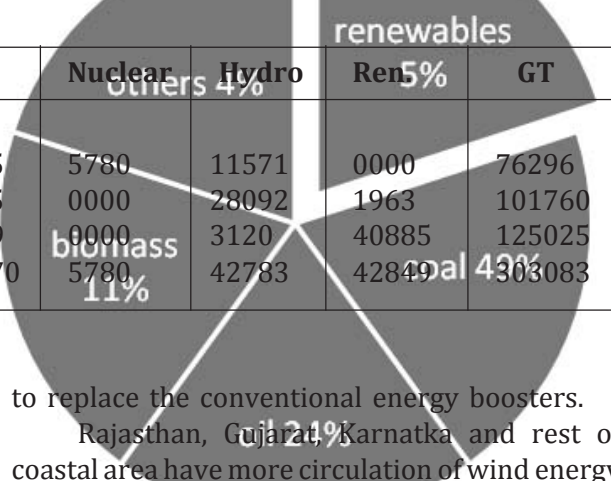
Source - Yojana , Page 11-13, per capita demand for energy in india

it is less than a ton but for USA it is nearly 7 tons.

India has identified 500000 villages to use se

Sector	Thermal				Nuclear	Hydro	Ren5%	GT
	Coal	Gas	Diesal	Total				
Cental	51390	7555	0000	58945	5780	11571	0000	76296
State	64130	7210	363	71705	0000	28092	1963	101760
Private	70722	9742	554	81019	0000	3120	40885	125025
All India	186242	24508	918	211670	5780	42783	42849	303083

Source: Yojana August 2016, page 9



The contribution of renewable energy is increasing day by day as it is needed. The demand for ennergy is increasing. But the conventional sources like coal , gas and diesal can be replaced by renewable energy. For the conventional sources we are dependent on other countries as india is not a major producer of any of these. In increasing demand and competition from other countreis india has to find out its other resources

to replace the conventional energy boosters. Rajasthan, Gujrat, Karnatka and rest of coastal area have more circulation of wind energy but energy production cost using biomass is little more whichi is around 5.5 Rs. per unit. Hydrel cost is also near to the above system of production, it is 4 to 4.5 Rs per unit. The potential for solar energy production is very huge in India because nearly 300 days we have a shining sun.

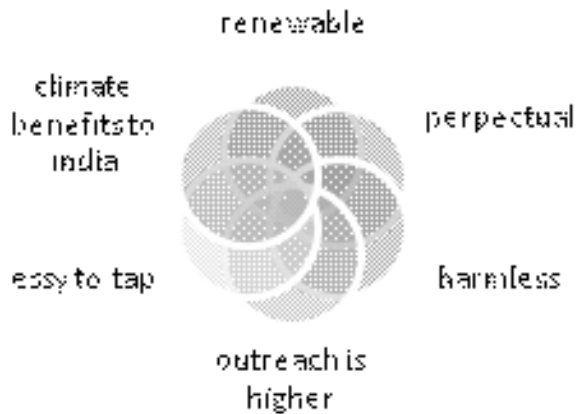
IMPORTANCE OF SOLAR ENERGY:

One of the free gifts from nature is “SUN”. Sun is the source of all the energy flowing on earth as it is the centre of complete solar system, it is spherical hot ball of plasma and always carries nuclear explosions which results in heavy heat.

The development of affordable, inexhaustible and clean solar energy technologies will have huge longer-term benefits. It will increase countries’ energy security through reliance on an indigenous, inexhaustible and mostly import-independent solar energy is sharp, radiant rays. The biggest place of heat and fire explosions is the name of sun, harnessed using a range of ever-evolving technologies such for Heating, Thermal powers, or conversion of solar energy in to electrical energy.

THE NATURE OF SOLAR ENERGY

Renewable Easy to tap Perpetual
Harmless Outreach is higher Climate benefits

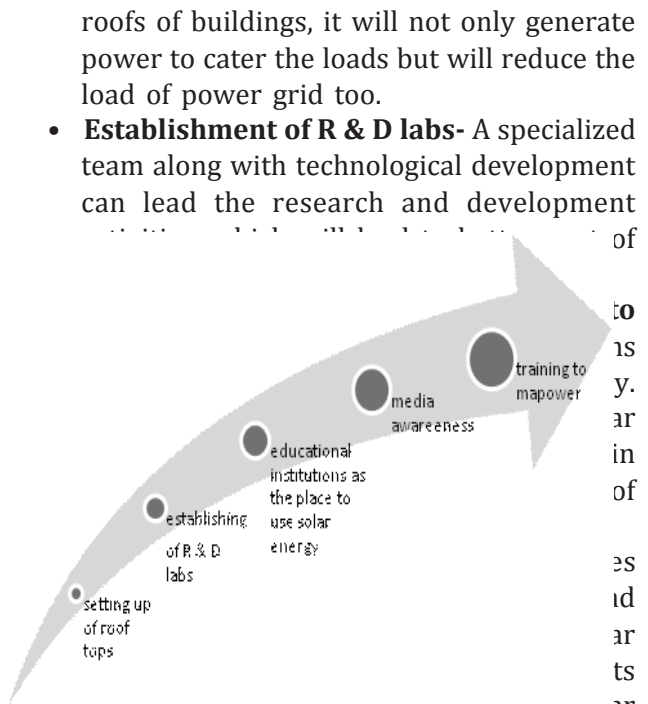


Solar energy is beneficial in all the aspects does not matter how it is used i.e. for commercial purpose or direct domestic use through utensils, cookers, water heater or latest innovation of solar jackets which keeps your body cool at least by 6 to 7 degrees during heat.

PROCEDURAL STEPS FOR THE PRODUCTION OF SOLAR ENERGY IN INDIA:

- **Setting of roof tops** - Rooftops are the easiest way to get solar energy. If the solar roof tops power plants are developed on the

Source- author’s conceptualization for how solar energy can be developed in India



roofs of buildings, it will not only generate power to cater the loads but will reduce the load of power grid too.

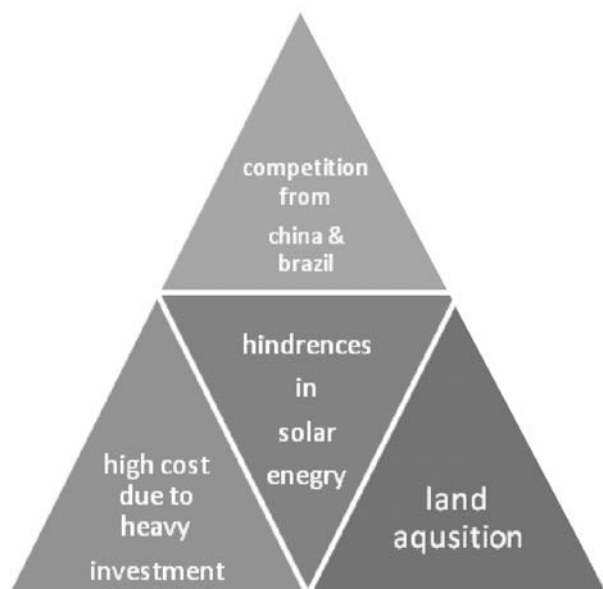
- **Establishment of R & D labs**- A specialized team along with technological development can lead the research and development

of to is ar in of es id ar ts

when it may brighten the future of solar energy in India. Now a days many companies using solar energy and its benefits in their marketing advertisements.

- **Training to manpower** - A trained manpower is need of every sector and industry. Solar energy also needs the same. A combination of civil, mechanical, electrical and electronics engineering is needed for the same. It will generate he employment too.

HINDRANCES IN INDUSTRIALIZATION OF SOLAR ENERGY



Source - Yojana, page no 15

China and Brazil are the biggest competitors of India in case of renewable energy. But India can take lead due to climatic conditions. China suppressed India by becoming largest domestic power and installation capacity which is 3 times more than India. Similarly Brazil is entering in the same market with more investment options at home.

The cost of making renewable energy from solar is still expensive.

Types of energy	Per unit Estimated cost (In Rs.)
Solar thermal	13
Solar PV	11
Wind	04
Agro waste	03 to 4.5
Mini micro hydrel	04 to 4.5
Coal	05

Source- Business Economic, June, 2011

Land acquisition for solar energy plant is another major issue in term of solar development. Urban areas can host solar panels but enough land is always needed. One has to be innovative and location specific while adopt solar energy as

their business potential or for cost effective purpose. Now to get rid of the high cost government has decided to give subsidy in cost.

INDIAN GOVERNMENT’S INITIATIVE AND INCENTIVES FOR SOLAR ENERGY

1. Loan to the roof top solar : On the roof-top solar photovoltaic roofs (PV) panel mounting will not need to take loans from different banks. The debt will be under the loan. After making the house is taken for rooftop PV figure, it will be considered part of the home loan. House to house to encourage the installation of solar panels, the Reserve Bank may soon issue a circular in this case.

In November 2016, the Ministry of Finance on behalf of the Department of Financial Services Reserve Bank of India (RBI) Regulation Department of the roof-top solar PV under loan debt is written in terms of being considered. Government during the next five years to expand rooftop solar PV capacity target is 40,000 MW.

2. Renewable Energy by MNRE : Government believes that the bank can play a vital role in achieving this goal. According to the MNRE have proposed home loans for which the roof of the houses there should be a provision for the establishment of a loan under the Loan Home Top Solar PV. While the work of the house has been completed, there is going to get a loan for a roof-top solar PV to be considered part of the home loan. Apart from this equipment, wiring and fittings are also part of loan able assets.

3. Priority will be given to unemployed graduates : Rooftop Solar Panel household chores educated unemployed youth will be given priority in the allocation. The same young men who have passed out ITI solar can work as agents. According to senior officials of MNRE 40,000 MW in the next five years, has set a target of putting a roof-top PV.

4. Empowerment through Panchayats : A priority will be given to the Panchayat then

it will be tender to the open market. According to the Ministry of the advantages of solar PV on the roofs of state and encourage him to her home in the 50000 ITI students planning to build solar agent.

CONCLUSION

Toxic legacy of global financial crisis continues to cast a shadow over the world but india attracted indices by 2011 as it is a big market for selling. Having a stable return for next 25 years makes solar energy more attractive for the business man to invest in . As the sector is having a demand and capacity both.india has a deficit of 10 to 15 % ,still over millions of people living without access to the electricity. So solar

energymay lead the rurl electrification as it is handy to carry in form of lantern. Solar energy is having a significant and continuous demand in domestic as well as in international market. India's potential for the mass application of green energy is enormous.

REFERENCES

- Business economics, June 2011, page 32- 47
- Business India, July 2013,lighten up India, PP 20-23
- Gujarat Samachar 31st January, 2015, saurashtra ma chamto surya, page no 12
- Yojana, August 2016, solar energy and its aspects, page , 8-15,32-33