

Review Article



Solar power helps India's economy grow and develop.

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Abstract:

Renewable energy plays an important role on the national and international stage. Solar power is growing rapidly in India, and this energy is used for further development in domestic and industrial sectors. Various initiatives have been taken to promote development. This renewable energy not only strengthens the economic sector but also empowers the social sector by creating many employment opportunities, therefore, solar energy can be seen as an important tool for the overall economic development.

Key Words: Renewable energy, Economic sector, Social sector, Employment

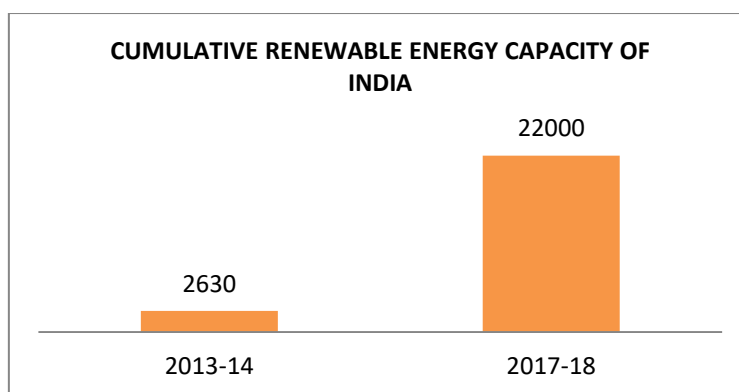
Introduction

Renewable source of energies are playing an important role in the global scenario. They can be renewed and can be used often there is no dearth of renewable energy. Wind energy, Solar energy, Geothermal energy, water energy are the major renewable energy. Solar power has been playing an important role in the present context. It is gradually replacing the non-renewable energy resources which is indeed a matter of pride. Developing countries need to trap this solar energy so that they can at least save their financial resources on tapping their natural resources and need not have to rely on fossil fuels. The global average solar radiation per m² and per year, can produce the same amount of energy as a barrel of oil, 200kg of coal or 140 m³ of natural

gas. Solar installed capacity of Europe is the highest followed by Asia 98.8GW and 92.3 GW respectively¹. Center for climate and Energy solutions reported that in US renewable energy is the fastest growing source. Solar energy is projected to climb from 7 percent total US renewable generation in 2015 to about 36 percent by 2050 making it the fastest growing electric source².

II. Escalation in India's Solar Power

The cumulative renewable energy capacity of India doubled over the years from 2013-14 to 2017-18 Within the last four the cumulative renewable energy capacity has been increased from 3500 MW to 70000 MW³.



Source:

This has been possible by the efforts of the good human and technological resources backed up by the policy of growth with efficiency of the government of India. And the target for the year 2022 is 175000 MW.(1)

India very well knows the importance of solar power and has taken initiative to harness this energy ,so within four years there has been potential increase in solar power. Solar power has been increased by over 8

times in the last four years(2013-14 to 2017-18) from 2630 MW to 22000MW

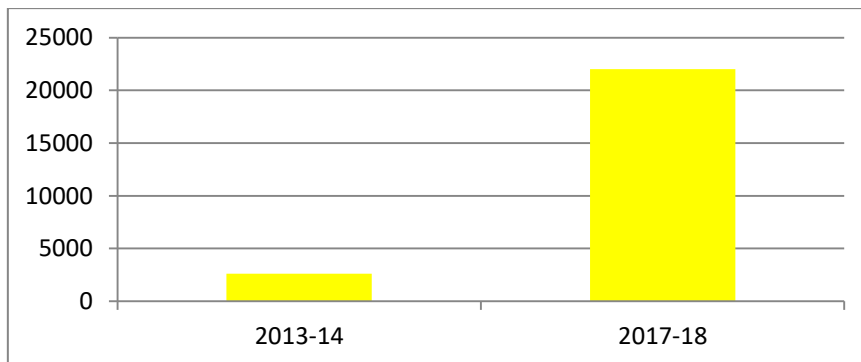


Fig:2 Growth In Solar Power

There has been tremendous increase in solar power in India and this energy is utilized for further development of the household and industrial sector. In order to make solar power more cost effective there has been transparent bidding process and due to this there is reduction in per unit cost for solar power. In the year 2014 the per unit cost for solar power was rupees 6.17 and it reduced to rupees 2.44 by 2018.

Due to the good generation of solar power the household sector, agricultural sector and the industrial sector is developing.

There has been good increase in solar homes there by leading to reduction in electricity through fossil fuels.

In the year 2013-14 there were only 274679 solar street lights and by the year 2017-18 this number increased to 620196 . These solar street lights are used in urban and rural areas .They have turned out to be very beneficial. ³

The solar pump sets are also playing an important role in the agricultural sector due to their increase irrigation of fields have increased .

In the year 2013-14 there were only 6 percent solar pumps and by 2017-18 this percentage grew to 94 percent ³

III. Impact of Renewable Energy in paving way for Employment Generation.

Renewable energy is also creating employment at all levels. About 10 million man days employment has been created per annum. Hence, directly and indirectly it is creating employment for the youth of the people. ³

IV. Conclusion

Solar power is a boon for India, through advancement in technology this renewable resource has increased its scope. It has provided energy not only in industrial sector but also in social and agricultural sector.

There are merits and demerits of solar energy. The basic goodness of solar energy is that it does not create much pollution as compared to the fossil energy. Due to the innovation in nano technology and quantum physics the electrical performances of solar panels have improved over the years. The improved technology has reduced the maintenance cost of the solar panels and now in the coming years these solar panels will be quite cheap and will obviously increase energy consumption leading to industrial growth and development. Apart from pros there are certain demerits also the manufacturing of the solar panels require certain minerals which increase the carbon emission and cause pollution, certain parts are quite costly and the installation of solar panels require massive space, hence an average house hold in India cannot afford it easily.

In a country like India where the potential for solar energy is high should make efforts to

produce less costly solar panels using eco friendly materials and for this the private technological institutes, IITs, NITs, need to take initiatives for innovating alternative sources of tapping solar energy. Tax Rebates and subsidies need to be provided to the units manufacturing any material related with solar energy generation. Engineering college students and faculty members should be provided with special scholarships, incentives and

other financial benefits who are working on solar projects or are planning to work on it.

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