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Wind Energy Resources For Rural Development In Ahmednagar District

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Abstract:

Wind is weather element. This wind changes velocity and direction time to time. Wind has its own speed. Wind is kinetic energy. With help of wind turbine this kinetic energy is converting into electric energy. Energy is prime need of human being. Man can be do lot of work with help of this energy. In a rural area, there are lot of scope for this energy as - domestic lighting, irrigation facility for cropping in agriculture and food processing activity. Ahmednagar is largegaest district of Maharashtra state. This district is located in western ghat. Physiography and climatic condition of this district is suitable for generation of wind electricity. Today, there are five sites for generation of electricity. These sites are Supa, Dulla Wadgaon, Khandke, Kuslum, Pachpatta and Nadur Pathar, Due to the physical condition of this area there are more potential sites, This district is made one of pioneer district for generation of wind electricity and its application for rural development.

Introduction:

Energy is prime need of human. Development of human civilization is history of improvement in energy system. In past period man was using wood material for formation of energy. Today man is using nuclear energy in his activity. Wind is source of renewable energy resources. It is farm of kinetic energy. Due to the moving capacity, this can be converting in to mechanical energy. There are many more references for wind energy in a ancient history. Man was using this wind energy for irrigation activity and grading the grain. In a Ahmednagar district first wind electricity plant is started from 1997. This plant was Supa. Today in this district, there are five wind sites as Supa, Khandke, Dulla Wadgaon, Kuslum, Nadur Pathar, Pachpatta. In this area there are different kinds of wind turbine as Suzlon, Vista and Pawan Shakti. With the help of these 600 wind turbine, it generate 550 megawatt electricity. Total demand of electricity for this district is 1000 megawatt. Hence, half need of electricity is fulfill by this wind farm. These wind farm is situated in the remote area. Wind is renewable energy, it can use again and again. It is sources of clean energy. Other sources as thermal electricity, it made air pollution which is harmful for nature. This is one of the causes of source of global

warming. These all sites of this district had made lot of development in this district.

Ahmednagar District:

This is tropical climate. It has good wind velocity throughout the year. Climate of this district is dry. Monsoon wind is active. In case of physical condition, there are the igneous rocks which can be support for heavy wind turbine. Month of summer and monsoon period, it has high wind speed. Due to monsoon climate vegetation is tropical decidous forest. Geographical area of this district is 1700 Square Km. Total population of this district is 45 Lakh. Most of the population are living in the rural area and working in agricultural activity. Important river of this district is Paravara, Mula, Sina and Dhora. these river had made its own irrigation system.

Wind Electricity:

The energy is generated with the help of wind velocity is known as wind electricity. This velocity is applicable in many more sector as Agriculture, Domestic need, Industrial sector and Transportation activity. Now a day as it renewable capacity wind electricity is useing as the green source of electricity. This electricity is useful in the remote area.

Uses of Wind Electricity:

As a source of natural element, it has many more uses for the rural development as below:

1. This electricity is useful in agricultural cropping irrigation.
2. If there is plantation in hilly region, This electricity is useful for water lifting water from the dam and irrigation for the vegetation.
3. Electricity is useful for the food processing industries.
4. For the domestic lighting and home activity.
5. For the remote area, wind electricity is prime need of the human being. with the help of wind electricity, it is possible for regional balance and development.
6. For changing electric vehicle charging and transportation activity.

Wind energy in rural development:

Ahmednagar district is agro based district of Maharashtra state. It has variation in the physiographic condition. Most of the river has made their own irrigation network, from the 1997 there are wind farm. These wind farms, had made for rural services.

1. Wind farm had generated the 500 megawatt electricity. Hence it completed total demand of this district.
2. Half of district has facilities by dam water as Neasasa, Shrirampur, Kopargaon and Shrirampur. Reaming potential land will be generate the more wind electricity.
3. This electricity is applicable for sugarcane irrigation and industries.
4. The potential sites are located in remote area. the potential site be

made rural development and economic network.

5. Central railway is passes from the middle part of this district. This electricity is applicable for different kinds of economic activity.
6. This electricity is applicable for social justice and equality.
7. It has made technical awareness for rural school boys and girls.
8. CSR fund will be applicable for the school child village planning activity.

Conclusion:

Hence in last 25 Years wind energy had made number of rural development network in this district. Physiography of this district is suitable for generation of wind electricity. It has more potential site for generation of electricity. Wind electricity is renewable source of electricity. In coming period wind energy is a source of rural development in India.

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