



### **Contribution of project activity to sustainable development:**

Indian economy is highly dependent on “Coal” as fuel to generate energy and for production processes. Thermal power plants are the major consumers of coal in India and yet the basic electricity needs of a large section of population are not being met. This results in excessive demands for electricity and places immense stress on the environment. Changing coal consumption patterns will require a multi-pronged strategy focusing on demand, reducing wastage of energy and the optimum use of Renewable Energy (RE) sources.

Government of India has stipulated following indicators for sustainable development in the interim approval guidelines<sup>1</sup> for CDM projects.

- Social well-being

The proposed project activity leads to alleviation of poverty by establishing direct and indirect employment benefits accruing out of ancillary units for manufacturing towers for erecting the WTGs and for maintenance during operation of the project activity. The infrastructure in and around the project area has also improved due to project activity. This includes development of road network and improvement of the quality of electricity in terms of its availability and frequency as the generated electricity is fed into a deficit grid.

- Economic well-being

The project contributes to the economic sustainability around the plant site, which is promotion of decentralization of economic power, leading to diversification of the national energy supply, which is dominated by conventional fuel based generating units. The generated electricity is fed into the Southern Regional Grid through local grid, thereby improving the grid frequency and availability of electricity to the local consumers (villagers and sub-urban habitants) which has provided new opportunities for industries and economic activities to be setup in the area thereby resulting in greater local employment, ultimately leading to overall development.

- Environmental well-being

The project utilizes wind energy for generating electricity which otherwise would have been generated through alternate fuels (most likely– fossil fuel) based power plants, thereby contributing to the reduction in specific emissions (emissions of pollutant/unit of energy generated) including GHG emissions. As wind power projects produce no end products in the form of solid waste (ash etc.), they address the problem of solid waste disposal encountered by most other sources of power. Being a renewable resource, using wind energy to generate electricity contributes to resource conservation. Thus the project causes no negative impact on the surrounding environment contributing to environmental well-being.

- Technological well-being

The project activity leads to the promotion of 1.25MW WTGs, demonstrating the success of wind turbine generators in the region, which feed the generated power into the nearest sub-station, thus increasing energy availability and improving quality of power under the service area of the substation. Hence, the project leads to technological well-being.

In view of the above, the project participant considers that the project activity profoundly contributes to the sustainable development.

<sup>1</sup> Designated National Authority (CDM India) web site: [http://cdmindia.nic.in/host\\_approval\\_criteria.htm](http://cdmindia.nic.in/host_approval_criteria.htm)