SECTION A. Description of project activity

A.1. Purpose and general description of project activity

The project activity consists of four Wind Turbine Generators (WTGs) of 1.5 MW capacities at Bastwa Mataji village, Jodhpur district, Rajasthan set up by M/s Devki Builders Pvt. Ltd. (hereafter DBPL or project participant). The project is a CDM project activity.

The project has been commissioned on 30/09/2009. The power generated is being exported to Jaipur Vidyut Vitaran Nigam Limited (hereafter JVVNL).

Purpose of the project activity:

The main purpose of the project activity is to generate electricity using wind energy. The power thus generated would be supplied to the state electricity grid and replace the power generated by fossil fuel intensive thermal power plants thus mitigating GHG emissions.

The electricity generation from the project activity will contribute to GHG reductions estimated at 102,400 tCO_2e over a period of 10 years, although the project life is envisaged as 20 years. The project activity can evacuate approximately 11,101 MWh of renewable power annually to the power deficit NEWNE grid.

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[1] for CDM projects.

1. Social well-being

   The proposed project activity leads to alleviation of poverty by establishing direct and indirect employment benefits occurring out for manufacturing towers, for erecting the WEGs and for maintenance during operation of the project activity. The infrastructure in and around the project area will also improve 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.

2. Economic well-being

   The project activity leads to an investment of about INR 3,445 lacs to a developing region which otherwise would not have happened in the absence of the project activity. The generated electricity is fed into the NEWNE grid through local grid, thereby improving the grid frequency and availability of electricity to the local consumers (villagers and sub-urban habitants) thereby resulting in greater local employment, ultimately leading to overall development. The project activity also leads to diversification of the national energy supply, which is dominated by conventional fuel based generating units.

[1] Ministry of Environment and Forests web site: http://envfor.nic.in:80/divisions/ccd/cdm_iac.html

3. 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 source, 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.

4. Technological well-being

The project activity leads to the promotion of WEGs into the region, demonstrating the success of wind turbines, 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.