

# **SHRI BAJRANG POWER & ISPAT LTD**

**Shri Bajrang RE Project (UNFCCC Ref no: 2128)**

## **Non-Technical Summary**

The CDM project activity is implemented by Shri Bajrang Power and Ispat Ltd at its sponge iron plant. The project activity is a biomass based power plant next to an existing power plant in Chhattisgarh, India. The power plant utilize rice husk a renewable biomass as the primary fuel for the generation of electricity for captive use and the surplus if any, is exported to the grid.

The project is registered on 27/02/2009 with renewable crediting period (renewed on 27/02/2016) with United Nations Frameworks Convention on Climate Change (UNFCCC) to obtaining the benefits of Carbon credits under Clean Development Mechanism (CDM) for the abatement of Carbon dioxide (CO<sub>2</sub>) in accordance with Kyoto Protocol, a global treaty to the UN Framework Convention on Climate Change and decided to adopt Gold Standard modalities for the 2<sup>nd</sup> crediting period of the project activity.

In India, the supply of electricity is primarily from their existing thermal and hydro based power plants. Where additional generation capacity is planned it will generally be thermal. The proposed CDM project – installation of biomass based power plant will therefore supplement current and planned electricity generation from traditional fossil fuel based power plants. As the project utilizes mainly rice husk for the generation of electricity it will qualify as a renewable source of electricity.

The project is helping the Host Country fulfill its goals of promoting sustainable development.

The plant will make a significant contribution to sustainable development not just directly through the provision of renewable electricity but also through the establishment of an industrial unit in a rural area. This will lead to the expansion of existing markets as well as the creation of new markets – new markets will mainly revolve around labour markets and the demand for skilled and semi-skilled labour whilst the rice husk market will be developed as will the infrastructure associated with the transport of rice husk. The on-going labour demand of the plant is estimated at 50 staff whilst the construction of the plant has involved more than 100 people.

The generation of renewable electricity will also reduce the dependence on existing and planned fossil fuel based generation. Chhattisgarh is heavily dependent on coal with less than 10% of generation sourced from non-fossil fuels (hydro). Thus, the project will have a positive impact not only through the reduction in emissions of greenhouse gases associated with such generation, which is predominantly coal based (see section on determination of the baseline), but also through a reduction in the emissions of other harmful gases (NO<sub>x</sub> and SO<sub>x</sub>) that arise from the combustion of coal.

## **Technical**

The project involves the installation of a 60 tph 67 kg/cm<sup>2</sup>, 485°C Cethar Vessels Ltd boiler and an 8MW condensing Triveni Engineering & Industries Ltd turbine generator. The turbine generator will produce electricity at 11 kV and after synchronization with the grid shall be used for captive consumption. However surplus if any will be stepped up to 132 kV and exported to the grid via the Urla substation, which is located at a distance of 2 kilometres from the plant.

## **Social**

The company has constructed two school buildings one at the near factory site in village Sarora, which provides education up to 8th standard and the other adjacent to the factory which provides education up to 5th standard. The company has also constructed a community building which is being utilized for social activities for villagers. Apart from above drinking water facility is also provided in village Bendri.

## **Environmental**

Through the generation and supply of renewable electricity to the grid the project activity will have a direct environmental benefit. The combustion of renewable biomass has long term benefits related to climate change given that the alternative is a fossil fuel based generation system. Local pollution will also be reduced through the combustion of biomass relative to the alternative fossil fuels for the supply of electricity, especially in relation to NO<sub>x</sub>, SO<sub>x</sub> and ash which arise in coal based generation (ash content of rice husk is of the order of 10-20% whilst Indian coal typically has an ash content of 35%).

As a part of the stakeholder feedback round, public comments are invited on the project. In this connection, you are requested to provide your comments on the same. Alternatively, you can provide your comments via email and a checklist shall be completed.