

# **MONITORING REPORT**

**“Biomass based independent power project at Malwa Power  
Private Limited, Mukatsar, Punjab”**

**Reference no. UNFCCC00000331CDMP**

Malwa Power Pvt. Limited  
43 Sector 27-C, Faridabad-121003  
Haryana, India

## **Current Status of the Project**

The biomass based power plant has been successfully commissioned by Malwa Power Pvt. Ltd. (MPPL).

<b><u>S/No.</u></b>	<b><u>Equipment</u></b>	<b><u>Supplier</u></b>
1.	Boiler	Thermax Ltd Pune
2.	T.G. Set	Triveni Engineering and Industries Ltd Bangalore
3.	Balance of Plant	Various suppliers like Kirloskar Electricals Bangalore for Transformers/Switch Yard and other major electrical equipments :Hyper filtration New Delhi for RO/Water softening plant ;Paltech Sahibabad for Cooling Tower etc
4.	Fuel Handling System	Kwality Engineering New Delhi

The entire equity was provided by MPPL and loan was taken from Indian Renewable Energy Development Agency (IREDA).

## **Statement to What Extent the Project has been implemented as Planned**

The project activity was completed as planned and described in the Project Design Document (PDD).

The project activity is in operation continuously (with outages – forced & planned.) since commissioning. Commercial operation was declared on April 27, 2005.

## **Monitoring Period**

The monitoring period is from 01/05/2005 to 30/04/2006. (Both days included)

## **Sustainability –Economic and Social Well-being**

The project activity has resulted in sustainable development in the region as follows:

- Helped to create employment in the area for skilled and unskilled labour during construction and operation.
- Employment opportunities have been generated for uneducated people having meager resources like bullock cart only, to collect the agro waste material and supply the same.
- MPPL has motivated the unemployed, educated youth to arrange tractors, trollies, chippers etc to transport the biomass to project site
- By generating clean power, project activity has helped to eliminate an equivalent carbon dioxide, sulphur dioxide, nitrogen oxides, SPM *etc.* which would have been otherwise generated to produce electricity at grid.
- Helped to reduce transmission losses due to generation of decentralised power close to load points.

## Obtained Parameters According to Monitoring Plan

For the project, following parameter was monitored:

- 1. Energy:** electronic energy meters to monitor the export and import of power have been installed at the grid interconnection point. Monthly joint meter readings have been taken at interconnection point by representatives of MPPL and Punjab State Electricity Board (PSEB) and signed. MPPL has used these joint meter readings to raise the invoices to PSEB against the net energy exported to grid (net saleable energy). MPPL has preserved records of joint meter reading at interconnection point and all the monthly invoices raised against net saleable energy to PSEB.
- 2. Biomass:** biomass fuel used in the power plant is weighed by electronic weigh-bridge installed at the plant site. Also quantity of biomass is based on invoices from fuel contractors. Biomass fuel consumption is recorded on daily basis & on monthly basis.
- 3. Fossil fuel:** no fossil fuel has been used during the period under review.
- 4. Energy content of biomass:** calorific value for different type of biomass has been monitored.

## Electricity Exported and Fuel Consumed:-

S/No.	Month	Net saleable energy (kWh)	Biomass used (kg)	Fossil fuel used (kg)
1.	May 2005	3824000	5034000	0
2.	June 2005	4012500	5395000	0
3.	July 2005	4217000	5804000	0
4.	August 2005	4159500	5683000	0
5.	September 2005	3659500	5429000	0
6.	October 2005	4398500	6137000	0
7.	November 2005	4404000	5776000	0
8.	December 2005	4111500	5705000	0
9.	January 2006	3873500	5262000	0
10.	February 2006	3874500	5348000	0
11.	March 2006	4410000	6054000	0
12.	April 2006			
	Total			

## **Emission Reductions**

Carbon Emission Factor as per the baseline adopted (kg CO<sub>2</sub>/kWh) =  
0.942

Net energy exported (kWh) =

Emissions reductions (ton CO<sub>2</sub>) =



## **Measures to Ensure the Results/Uncertainty Analysis**

As per the Power Purchase Agreement (PPA), the energy exported to the PSEB is recorded from two independent set of meters – Main Meters & Check Meters. Reading of main meter is used for billing. In the event of main meter not in operation, the reading of the backup meter is to be used for billing.

Till date the main meter only has been used for billing purposes.

## **Roles & Responsibilities**

MPPL was the sole agency responsible for implementation and monitoring plan given above.