



## **MONITORING REPORT**

### **MONTE ROSA BAGASSE COGENERATION PROJECT (MRBCP)**

**(CDM Registration Reference Number 191)**

**Monitoring Period:**

**1 March, 2002 to 30 April, 2006**

**Prepared by Econergy Brasil Ltda**



**Version: 01**

**15<sup>th</sup> August, 2006**

## 1. Introduction

This document reports the Emission Reductions (ERs) generated by the Monte Rosa Bagasse Cogeneration Project (hereinafter MRBCP), CDM Registration Reference Number 191, in the following Monitoring Periods:

Year	Monitoring Period Date (DD/MM/YY)	
	From	To
Y 1	01/03/02	31/12/02
Y 2	01/01/03	31/12/03
Y 3	01/01/04	31/12/04
Y 4	01/01/05	31/12/05
Y 5	01/01/06	30/04/06

The MRBCP operation has been monitored in accordance with the requirements of the applicable Monitoring Methodology AM0015: “Bagasse-based cogeneration connected to an electricity grid” as described in its Project Design Document. Quality Assurance and Quality Control mechanisms stipulated in the Monitoring Methodology have been applied.

## Emission Reductions Calculation Formula

ERs generated by the MRBCP are calculated as follows:

ERs = Net generation from project during the monitoring period times baseline emission factor =  
ERs = (MWh) \* (tCO<sub>2</sub>e/MWh) = Net CO<sub>2</sub> emissions avoided at grid (tCO<sub>2</sub>e)

Where the ex-ante baseline emission factor is 0,7094 tCO<sub>2</sub>e/MWh.

The following table presents information and data used to determine the baseline scenario.

ID number	Data type	Value	Unit	Data Source
1. EG <sub>y</sub>	Electricity supplied to the grid by the Project.	Obtained throughout project activity lifetime.	MWh	Monte Rosa
2. EF <sub>y</sub>	CO <sub>2</sub> emission factor of the Grid.	0,7094	tCO <sub>2</sub> e/MWh	Calculated
3. EF <sub>OM,y</sub>	CO <sub>2</sub> Operating Margin emission factor of the grid.	0,7446	tCO <sub>2</sub> e/MWh	This value was calculated using information provided in the Baseline Information section (Annex 3) of this PDD
4. EF <sub>BM,y</sub>	CO <sub>2</sub> Build Margin emission factor of the Grid.	0,6741	tCO <sub>2</sub> e/MWh	This value was calculated using information provided in the Baseline Information section (Annex 3) of this PDD.

## 2. Dispatched energy to the grid in the Monitoring Periods

Date (DD/MM/YY)		Amount of energy sold to the grid (MWh)
From	To	
1/3/2002	31/3/2002	4.110,230
1/4/2002	30/4/2002	4.682,905
1/5/2002	31/5/2002	3.784,739
1/6/2002	30/6/2002	142,805
1/7/2002	31/7/2002	0,000
1/8/2002	31/8/2002	0,000
1/9/2002	30/9/2002	0,000
1/10/2002	31/10/2002	0,000
1/11/2002	30/11/2002	961,220
1/12/2002	31/12/2002	5.948,680
<b>1/3/2002</b>	<b>31/12/2002</b>	<b>19.630,579</b>
1/1/2003	31/1/2003	7.415,150
1/2/2003	28/2/2003	6.836,525
1/3/2003	31/3/2003	7.571,600
1/4/2003	30/4/2003	5.936,828
1/5/2003	31/5/2003	0,000
1/6/2003	30/6/2003	0,000
1/7/2003	31/7/2003	0,000
1/8/2003	31/8/2003	0,000
1/9/2003	30/9/2003	0,000
1/10/2003	31/10/2003	0,000
1/11/2003	30/11/2003	2.033,809
1/12/2003	31/12/2003	6.864,550
<b>1/1/2003</b>	<b>31/12/2003</b>	<b>36.658,462</b>

Date (DD/MM/YY)		Amount of energy sold to the grid (MWh)
From	To	
1/1/2004	31/1/2004	7.060,910
1/2/2004	28/2/2004	6.736,490
1/3/2004	31/3/2004	7.218,010
1/4/2004	30/4/2004	6.786,050
1/5/2004	31/5/2004	5.590,970
1/6/2004	30/6/2004	637,510
1/7/2004	31/7/2004	0,000
1/8/2004	31/8/2004	0,000
1/9/2004	30/9/2004	0,000
1/10/2004	31/10/2004	0,000
1/11/2004	30/11/2004	900,485
1/12/2004	31/12/2004	8.307,223
<b>1/1/2004</b>	<b>31/12/2004</b>	<b>43.237,647</b>
1/1/2005	31/1/2005	18.299,280
1/2/2005	28/2/2005	17.262,284
1/3/2005	31/3/2005	18.135,291
1/4/2005	30/4/2005	14.306,676
1/5/2005	31/5/2005	10.479,488
1/6/2005	30/6/2005	0,000
1/7/2005	31/7/2005	0,000
1/8/2005	31/8/2005	0,000
1/9/2005	30/9/2005	0,000
1/10/2005	31/10/2005	0,000
1/11/2005	30/11/2005	3.430,245
1/12/2005	31/12/2005	17.246,982
<b>1/1/2005</b>	<b>31/12/2005</b>	<b>99.160,246</b>
1/1/2006	31/1/2006	19.311,562
1/2/2006	28/2/2006	18.444,670
1/3/2006	31/3/2006	20.466,363
1/4/2006	30/4/2006	10.619,892
<b>1/1/2006</b>	<b>30/4/2006</b>	<b>68.842,486</b>
<b>1/3/2002</b>	<b>30/4/2006</b>	<b>267.529,421</b>

Invoices are available with the project participants.

The months not considered in the previous table are related with the off-crop season. During this period of non-crop season, no energy was produced by the cogeneration system of the mill and consequently, no electricity was sold to the grid.

The table below shows the consolidated data from the previous table.

Year	Monitoring Period Date (DD/MM/YY)		Amount of energy sold to the grid (MWh)
	From	To	
<b>Y 1</b>	01/03/02	31/12/02	19.630,579
<b>Y 2</b>	01/01/03	31/12/03	36.658,462
<b>Y 3</b>	01/01/04	31/12/04	43.237,647
<b>Y 4</b>	01/01/05	31/12/05	99.160,246
<b>Y 5</b>	01/01/06	30/04/06	68.842,486
	<b>01/03/02</b>	<b>30/04/06</b>	<b>267.529,421</b>

### 3. ERs Generated in the Monitoring Periods

Calculation of ERs							
DESCRIPTION	UNIT	Y 1	Y 2	Y 3	Y 4	Y 5	TOTAL
		From 01/03/2002 to 31/12/2002	From 01/01/2003 to 31/12/2003	From 01/01/2004 to 31/12/2004	From 01/01/2005 to 31/12/2005	From 01/01/2006 to 30/04/2006	
Metered Electricity Supply	MWh	19.630,579	36.658,462	43.237,647	99.160,246	68.842,486	267.529,421
Baseline Emission Factor	tCO <sub>2</sub> e/MWh	0,7094	0,7094	0,7094	0,7094	0,7094	0,7094
Emission Reductions (ERs)	tCO <sub>2</sub> e	13.925,933	26.005,513	30.672,787	70.344,278	48.836,860	189.785,371

In accordance with the formula in section 2, the MRBCP has in the monitoring periods generated:

$$\text{ERs} = 267.529,421 \text{ MWh} * 0,7094 \text{ tCO}_2\text{e/MWh} = \mathbf{189.785 \text{ tCO}_2\text{e}}$$