

e7 Bhutan Micro Hydro Power CDM Project  
(CDM Registration Reference Number 0062)

Monitoring Report

Monitoring Period: 19 August, 2005 to 30 November, 2006

e7 Fund For Sustainable Energy Development

## 1. Introduction

This document reports the emission reduction generated by the e7 Bhutan Micro Hydro Power CDM Project (hereafter the Project), CDM Registration Reference Number 0062, in the following monitoring periods:

- 18 August, 2005 (Commencement of operation) to 30 November, 2006.

The Project operation has been monitored in accordance with the requirements of the applicable monitoring method as described in its Project Design Document. Quality assurance and data processing mechanisms stipulated in the Manuals for Monitoring & Inspection have been applied.

## 2. Calculation Formula (Method) of Emission Reduction

According to Item E.2 of the Project Design Document, the emission reduction generated by the Project is calculated as follows:

Net Electricity from the Project during the monitoring period times Emission Factor  
$$=(\text{MWh}) \times (\text{t-CO}_2/\text{MWh}) = (\text{t-CO}_2) = \text{Emission Reduction}$$

Where the emission factor is a default value 0.9 t-CO<sub>2</sub>/MWh which is derived from diesel generation units.

### 3. Electricity Output of Monthly Base

The accumulated generated energy is recorded three times a day, according to the Manuals for Monitoring & Inspection.

The electricity generated by the Project in each month during the monitoring period is calculated with the balance of the accumulated monthly generated energy as shown in the following table:

Month / Year	Electricity [MWh]	Source (Evidence)
<b>2005</b>		
August	14.401	“Generated Energy” record in “Operation Log and Inspection Result” sheet of each operation period.
September	16.848	
October	6.305	
November	2.652	
December	0	
<b>Total for 2005</b>	<b>40.206</b>	-
<b>2006</b>		
January	10.468	“Generated Energy” record in “Operation Log and Inspection Result” sheet of each month.
February	47.254	
March	50.850	
April	47.584	
May	50.389	
June	50.270	
July	42.431	
August	51.838	
September	48.826	
October	38.165	
November	48.637	
<b>Total for 2006</b>	<b>486.712</b>	-

#### 4. Calculation of Emission Reduction

The amount of the emission reduction generated by the Project during the monitoring period is calculated using the emission factor according to Item E.2 of the Project Design Document as shown in the following table:

Year	Electricity Generated [MWh]	Emission Factor [t-CO <sub>2</sub> /MWh]	Emission Reduction [t-CO <sub>2</sub> ]
2005	40.206	0.9	36
2006	486.712	0.9	438
<b>Total</b>	<b>526.918</b>	<b>-</b>	<b>474</b>

From August 2005 to November 2006, the e7 Bhutan Micro Hydro Power CDM Project has reduced 474 tones of CO<sub>2</sub>, by using a run-of-river type micro hydro power categorized under renewable energy, for the generation of electrical energy.

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