# Monitoring Report

## Version 1.0

Dated: 3 September 2007

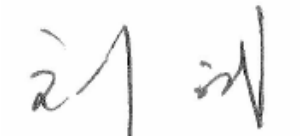
Start monitoring period: 1 September 2006
End monitoring period: 31 August 2007

## Title: Zhangbei Manjing Windfarm Project

## UNFCCC Reference Number: 0233

Project developer:

## Beijing Guotou Energy Conservation Company

| This Monitoring Report is approved: |  <br>Mr Liu Bin<br>Head of the Zhangbei Manjing Windfarm Administration Office<br>Beijing Guotou Energy Conservation Company<br><br>Date: 3 September 2007 |
|---|---|

| Project advisor: | Verifier: |
|---|---|
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# 1 Introduction

The purpose of this Monitoring Report is to calculate the emission reductions achieved by the project activity in the period covered by this report, and to serve as the basis for the verification of these reductions and issuance of the CERs.

## 1.1 Monitoring period

Monitoring report number 2: 1 September 2006 to 31 August 2007

# 2 Project description

## 2.1 Title

Zhangbei Manjing Windfarm Project

## 2.2 UNFCCC Reference Number

0233

## 2.3 Project summary

The Zhangbei Manjing Windfarm Project is located in Hebei Province, China. The project consists of the installation of 30 turbines, each of 1,500 kW capacity, providing a total of 45MW. The project is expected to generate some 108GWh per year once fully operational which will be exported to the North China Power Grid.

A more detailed description is available in the PDD and related documentation.

## 2.4 Category of project activity

Using the agreed methodology AM0005 the category of the project activity is:

- Sectoral scope 1: Energy industries
- Category: Renewable electricity generation in grid connected applications

# 3 Project timeline

| | |
|---|---|
| Starting date of the electricity production | 30 December 2005 |
| Registration date | 23 March 2006 |
| Crediting period | First renewable crediting period |
| Starting date of crediting period | 1 January 2006 |
| End date of crediting period | 31 December 2012 |

| | |
|---|---|
| Previous monitoring report | |
| Volume 1 | 1 Jan 2006 – 31 Aug 2006 |
| This monitoring report | (Volume 2) |
| Start of monitoring period | 1 September 2006 |
| End of monitoring period | 31 August 2007 |

Table 1 lists the commissioning dates of 30 wind turbines installed in the Zhangbei Manjing Windfarm Project.

**Table 1 Commissioning dates of turbines**

| Turbine number | Commissioning date |
|---|---|
| 11# | 2005.12.30 |
| 12# | 2006.1.7 |
| 10# | 2006.1.10 |
| 9# | 2006.1.16 |
| 14# | 2006.1.19 |
| 3# | 2006.1.21 |
| 8# | 2006.4.15 |
| 1# | 2006.4.22 |
| 30# | 2006.4.25 |
| 2# | 2006.4.27 |
| 4# | 2006.4.27 |
| 5# | 2006.4.28 |
| 6# | 2006.4.30 |
| 7# | 2006.5.3 |
| 15# | 2006.6.8 |
| 13# | 2006.6.13 |
| 16# | 2006.6.22 |
| 17# | 2006.6.22 |
| 18# | 2006.6.24 |
| 19# | 2006.6.30 |
| 21# | 2006.7.12 |
| 22# | 2006.7.13 |
| 23# | 2006.7.14 |
| 27# | 2006.7.15 |
| 20# | 2006.7.15 |
| 25# | 2006.7.19 |
| 26# | 2006.7.22 |
| 28# | 2006.8.18 |
| 29# | 2006.9.1 |
| 24# | 2006.9.10 |

# 4 Baseline

## 4.1 Methodology

The project participants use the approved baseline and monitoring methodology AM0005 (version 1) "baseline methodology (barrier analysis, baseline scenario development and baseline emission rate, using combined margin) for small grid-connected zero-emissions renewable electricity generation".

Using AM0005, the emission reductions achieved by the project activity can be calculated by multiplying the net electricity supplied to the grid and the appropriate emissions factor of the grid.

## 4.2 Calculations

The emission reductions ERy by the project activity during a given year y is

ERy = EGy * EFy

where EGy is the net electricity supplied to the grid, EFy is the CO2 emission factor of the grid.

The emission factor EFy of the grid is represented as a combination of the Operating Margin and the Build Margin.

The Operating Margin emission factor EF_OMy is defined as the generation-weighted average emissions per electricity unit ($tCO_2$/MWh) of all generating sources serving the system, excluding zero- or low-operating cost power plants (hydro, geothermal, wind, low-cost biomass, nuclear and solar generation), based on the latest year for which statistics data is available. In accordance with the approved PDD the calculation is made from the share of generation from each fuel multiplied by the emissions coefficient for that fuel. The China Energy Statistical Yearbook and China Electric Power Yearbook present these data annually.

The Build Margin emission factor EF_BMy is given as the weighted average emission factor of the most recent 20% of the generating units built. In accordance with the approved PDD, and because of the limited availability of publicly available data, the most recent 20% of additions is calculated from the China Electric Power Yearbook by comparing installed capacity in historic years, following the three steps below:

- Using the latest statistical data available (from the China Electric Power Yearbook) determine the two years with added generation capacity closest to 20% (below and above 20%).
- Calculate the Build Margin for both these years.
- Adopt the lowest, i.e. most conservative, BM.

For the latest year available, the build margin is calculated from the additional generation capacity in the last 2 years:

$EF\_BMy = \Sigma i\ Si,y*CEFi$

Where Si is the share in added generation from technology/fuel i for year y, and CEFi the $CO_2$ emission factor for technology/fuel i. The CEF represents the best available power generation technology (with lowest carbon emission level) in the North China Power Grid. The calculation is made for the two years closest to 20% additional capacity.

According to AM0005 if the grid imports or exports electricity from/to other grids, a correction of the emissions factor made be required. However, with regards to the North China Power Grid, such corrections for imports and exports would be negligible, as the other grids surrounding the North China Power Grid have very similar emissions factors, and power flows between these interconnected grids are very limited, less than 1% in the latest year for which data is available in the China Electric Power Yearbook.

## 5 Monitoring methodology and plan

The monitoring is in compliance with the monitoring methodology AM0005, following the revised monitoring plan. The two main variables are the net electricity supplied to the grid, which is calculated from the data monitored with electricity meters, and the appropriate emissions factor of the grid, which is calculated from national statistics and other official sources.

### 5.1 Monitored data

As the emissions factor is not fixed for the whole period, the monitored data for the project activity includes the variables required to calculate the CO2 emissions factor of the grid:

| ID | Variable | Source of data |
|---|---|---|
| 1 | EG: net electricity supplied to the grid | Calculated |
| 2 | EF: $CO_2$ emissions factor of the grid | Calculated |

| | | |
|---|---|---|
| 3 | EF_OM: operating margin | Calculated |
| 4 | EF_BM: build margin | Calculated |
| 5 | TEM: total $CO_2$ emissions of the grid | Calculated |
| 6 | TGEN: total electricity generation from included sources | Calculated |
| 7 | Fi: amount of fuel consumed | China Energy Statistical Yearbook 2006 |
| 8 | COEFi: GHG emissions coefficient of fuel | China Energy Statistical Yearbook 2006 and IPCC2006 |
| 9 | Si: Share in added generation | China Electric Power Yearbook 2006 |
| 10 | CEFi: $CO_2$ emissions factor of best available technology | Tshingua Univeristy study for NC4 |
| 11 | EL: net import/export | Calculated from 12 and 13 |
| 12 | EL_in: imports | China Electric Power Yearbook 2006 |
| 13 | EL_out: exports | China Electric Power Yearbook 2006 |
| 14 | EF_in: emissions factor of imports | Calculated if net import > 2% |
| 15 | EF_out: emissions factor of exports | Calculated if net export > 2% |

## 5.2 Baseline data

### 5.2.1 EG: net electricity supplied to the grid

As described in the revised monitoring plan, the electricity supplied to NCPG by the Zhangbei Manjing Windfarm currently shares the main electricity meter at the 220kV substation with the Zhangbei Mijiagou windfarm (CDM project 0845), so the meter at the 220kV level measures the total electricity from the two windfarms delivered to the NCPG. In line with the revised monitoring plan, back-up metering equipment at the project site is used to calculate the share of each of the projects of the generation to the grid at 220kV, as follows:

*EG_1 = EG_total * E1 / (E1 + E2)*

Where:
EG_1 is the calculated power generation from the project activity;
EG_total is the total power generation to the grid at the Zhangbei substation metered by the main meter;
E1 is the electricity generation metered from the Zhangbei Manjing Windfarm Project from the onsite meters; and
E2 is the electricity generation metered from the Zhangbei Mijiagou 49.5MW Windfarm Project from the onsite meters

Zhangjiakou Electric Power Company has the responsibility to operate the 220kV sub-station and read the main meter installed at the 220kV sub-station at 0:00 every day and send this report to the Zhangbei Manjing Windfarm monthly.
To be conservative, the total power consumption of these two projects is considered as the power consumption of Zhangbei Manjing windfarm project.

**Table 2 Net electricity generation by the project (MWh)**

| Period | $EG_I$ | Consumption | Net Supply(EG) |
|---|---|---|---|
| Sep-06 | 7545.25 | 15.05 | 7530.20 |
| Oct-06 | 10797.30 | 23.89 | 10773.41 |
| Nov-06 | 13641.50 | 16.50 | 13625.00 |
| Dec-06 | 13803.37 | 25.34 | 13778.03 |
| Jan-07 | 8126.84 | 40.00 | 8086.85 |
| Feb-07 | 11233.20 | 21.38 | 11211.82 |
| Mar-07 | 13215.84 | 53.99 | 13161.85 |
| Apr-07 | 12944.75 | 33.66 | 12911.09 |
| May-07 | 14807.67 | 29.70 | 14777.97 |
| Jun-07 | 8405.36 | 88.31 | 8317.05 |
| Jul-07 | 5678.82 | 52.80 | 5626.02 |
| Aug-07 | 7352.00 | 47.92 | 7304.08 |

### 5.2.2 EF: $CO_2$ emissions factor of the grid

The emissions factor is calculated annually using the latest data available in line with the monitoring plan.

#### *5.2.2.1 EF_OM: Operating margin emission factor*

First, the emission coefficient is established for all fuels used in NCPG.

**Table 3 COEF calculation**

| Fuel types | Unit | Net Caloric value (MJ/unit) | Oxidation rate (%) | Carbon Emission Factor (tC/TJ) | COEF ($tCO_2e$/unit) |
|---|---|---|---|---|---|
| Raw coal | tonne | 20,908 | 100 | 25.8 | 1.98 |
| Cleaned coal | tonne | 26,344 | 100 | 25.8 | 2.49 |
| Other washed coal | tonne | 8,363 | 100 | 25.8 | 0.79 |
| Coke | tonne | 28,435 | 100 | 29.2 | 3.04 |
| Coke oven gas | 1000 m3 | 16,726 | 100 | 12.1 | 0.74 |
| Other coal gas | 1000 m3 | 5,227 | 100 | 12.1 | 0.23 |
| Crude oil | tonne | 41,816 | 100 | 20.0 | 3.07 |
| Gasoline | tonne | 43,070 | 100 | 18.9 | 2.98 |
| Diesel | tonne | 42,652 | 100 | 20.2 | 3.16 |
| Fuel oil | tonne | 41,816 | 100 | 21.1 | 3.24 |
| LPG | tonne | 50,179 | 100 | 17.2 | 3.16 |
| Refinery gas | tonne | 46,055 | 100 | 15.7 | 2.65 |
| Natural gas | 1000 m3 | 38,931 | 100 | 15.3 | 2.18 |
| Other petroleum products | tonne | 38,369 | 100 | 20.0 | 2.81 |
| Other coking products* | tonne | 28,435 | 100 | 0.0 | 0.00 |
| Other fuel* | tonne# | 0 | 100 | 0.0 | 0.00 |

Note: * not defined exactly, conservative emission factor: 0; # coal equivalents
Sources: NCV from China Energy Statistical Yearbook (2006) p 287, CEF and OXID from IPCC 2006

Secondly, the fuel use is given and resulting emissions are calculated for the latest year for which data is available.

**Table 4 Fuel use and emissions**

| Fuel types | Unit | Beijing | Tianjin | Hebei | Shanxi | Inner Mongolia | Shandong | NCPG total | Emissions ($MtCO_2e$) |
|---|---|---|---|---|---|---|---|---|---|
| Raw coal | million tonnes | 8.9775 | 16.7520 | 67.2650 | 61.7645 | 62.7723 | 104.0540 | 321.5853 | 636.06 |
| Cleaned coal | million tonnes | - | - | - | - | - | 0.4218 | 0.4218 | 1.05 |
| Other washed coal | million tonnes | 0.0657 | - | 1.6745 | 3.7365 | - | 1.0869 | 6.5636 | 5.19 |
| Coke | million tonnes | - | - | - | - | 0.0021 | 0.0011 | 0.0032 | 0.01 |
| Coke oven gas | billion $m^3$ | 0.0640 | 0.0750 | 0.0620 | 2.1080 | 0.0390 | - | 2.3480 | 1.74 |
| Other coal gas | billion $m^3$ | 1.6090 | 0.7860 | 3.8830 | 0.9880 | 1.8370 | - | 9.1030 | 2.11 |
| Crude oil | million tonnes | - | - | - | - | 0.0073 | - | 0.0073 | 0.02 |
| Gasoline | million tonnes | - | - | 0.0001 | - | - | - | 0.0001 | 0.00 |
| Diesel | million tonnes | 0.0048 | - | 0.0354 | - | 0.0012 | - | 0.0414 | 0.13 |
| Fuel oil | million tonnes | 0.1225 | - | 0.0023 | - | 0.0006 | - | 0.1254 | 0.41 |
| LPG | million tonnes | - | - | - | - | - | - | - | - |
| Refinery gas | million tonnes | - | - | 0.0902 | - | - | - | 0.0902 | 0.24 |
| Natural gas | billion $m^3$ | 0.0280 | 0.0080 | - | 0.2760 | - | - | 0.3120 | 0.68 |
| Other petroleum products | million tonnes | - | - | - | - | - | - | - | - |
| Other coking products | million tonnes | - | - | - | - | - | - | - | - |
| Other fuel | million tonnes# | 0.0858 | - | - | 0.6931 | 0.0727 | 1.1890 | 2.0406 | - |
| Total emission | $MtCO_2e$ | | | | | | | | 647.65 |

*Source: Fuel consumption for thermal power generation in the North China Power Grid is obtained from page 126-145, page 182-185, China Energy Statistical Yearbook 2006.*

Thirdly, generation on the grid is calculated from the data available.

**Table 5 Generation and self-use rates in 2005.**

| | Unit | Beijing | Tianjin | Hebei | Shanxi | Inner Mongolia | Shandong | NCPG total |
|---|---|---|---|---|---|---|---|---|
| Gross generation | $10^8$ kWh | 208.80 | 369.93 | 1,343.48 | 1,287.85 | 923.45 | 1,898.80 | 6,032.31 |
| Self use rate | % | 7.73 | 6.63 | 6.57 | 7.42 | 7.01 | 7.14 | |
| Net generation | $10^8$ kWh | 192.66 | 345.40 | 1,255.21 | 1,192.29 | 858.72 | 1,763.23 | 5,607.51 |

Source: China Electric Power Yearbook (2006) p568, p558

Finally, the operating margin emissions factor can be calculated

**Table 6 Operating margin emissions factor**

| | Value | Unit |
|---|---|---|
| Total emissions | 647,649,331 | $tCO_2e$ |
| Total thermal generation | 560,751,013 | MWh |
| EF_OM | 1.155 | $tCO_2e/MWh$ |

*Source: China Energy Statistical Yearbook 2006; Electricity generation supplied to the North China Power Grid is obtained from page 557 and 559, China Electric Power Yearbook 2006*

*5.2.2.2 EF_BM: Build margin emission factor*

To calculate the build margin emissions factor, first the two years since which added generating capacity is closest to 20% are determined from the latest data available.

**Table 7 Added capacity in the North China Power Grid**

| Year | Installed capacity (MW) | Growth to 2005 (%) | Selected |
|---|---|---|---|
| 2005 | 114,674.5 | n/a | n/a |
| 2004 | 96,983.2 | 15.4% | Yes |
| 2003 | 87,362.7 | 23.8% | Yes |

*Source: China Electric Power Yearbook (2003, 2004 and 2006 editions)*

As per the procedure described in the PDD, the Build Margin Emission Factors since 2003 and 2004 are now calculated in Table 8 and 9 below. In line with the methodology described, the most conservative (i.e. lowest) is chosen.

The CEF for the best available technology is taken from the Tshinghua University Study for NC4.[1]

**Table 8 Build Margin data for the North China Power Grid (since 2003)**

| **Source** | **Capacity, 2003** | **Capacity, 2005** | **Added capacity, 2003-2005** | **Share** | **CEF** | **Weighted average EF_BM** |
|---|---|---|---|---|---|---|
| | **(MW)** | **(MW)** | **(MW** | **(%)** | **(kgCO2e/kWh)** | **(kgCO2e/kWh)** |
| Hydro* | 3266.0 | 3242.6 | -23.4 | n/a | | |

[1] "Title", Tshinghua University for NC4.

| | | | | | | |
|---|---|---|---|---|---|---|
| Thermal | 84006.6 | 111139.7 | 27133.1 | 99.3% | 0.886 | 0.880 |
| Other (wind) | 90.1 | 292.3 | 202.2 | 0.7% | | |
| Total | 84096.7 | 111432.0 | 27335.3 | 100.0% | | 0.880 |

*Note: * Because the capacity of hydro power has reduced since 2003, the share of hydro power capacity is ignored when calculating the EF_BM.*
*Source: China Energy Statistical Yearbook (2004, 2006); Tshinghua University for NC4*

**Table 9 Build Margin data for the North China Power Grid (since 2004)**

| Source | Capacity, 2004 | Capacity, 2005 | Added capacity, 2004-2005 | Share | CEF | Weighted average EF_BM |
|---|---|---|---|---|---|---|
| | (MW) | (MW) | (MW | (%) | (kgCO2e/kWh) | (kgCO2e/kWh) |
| Hydro* | 3250.7 | 3242.6 | -8.2 | n/a | | |
| Thermal | 93594.9 | 111139.7 | 17544.8 | 99.1% | 0.886 | 0.878 |
| Other (wind) | 137.5 | 292.3 | 154.8 | 0.9% | | |
| Total | 93732.4 | 111432.0 | 17699.6 | 100.0% | | 0.878 |

*Note: * Because the capacity of hydro power has reduced since 2004, the share of hydro power capacity is ignored when calculating the EF_BM.*
*Source: China Energy Statistical Yearbook (2005, 2006); Tshinghua University for NC4*

To be conservative, the lowest build margin emissions factor, 0.878tCO2e/MWh, is adopted in line with the procedures set out and approved in the PDD.

*5.2.2.3 EF calculation*

The emissions factor is now calculated as the average of EF_OM and EF_BM.

**Table 10 Actual calculated emissions factors compared to projected values in the PDD**

| | Actual value | PDD projection |
|---|---|---|
| Latest year available | 2005 | 2003 |
| EF_OM | 1.155 | 0.993 |
| Chosen year for BM | 2004 | 1999 |
| EF_BM | 0.878 | 0.819 |
| EF | 1.017 | 0.906 |

### 5.2.3 Correction for electricity imports and exports

**Table 11 Electricity exchange between grids in 2005 (MWh)**

| Imports | Exports | Net exchange | Net exchange (%) |
|---|---|---|---|
| 3,929,000 | 0 | 3,929,000 | <1% |

*Source: China Electric Power Yearbook (2006 Page 351).*

Total net electricity exchange between the North China Power Grid and other grids is presented in
Table 11. With total generation in the North China Power Grid in 2005 being 607,782,000 MWh[2], this amount is less than 1% and is neglected in the calculations in line with the approved use of the methodology AM0005.

# 6 Quality assurance and quality control measures

## 6.1 Roles and responsibilities

Overall responsibility for monitoring and carrying out the monitoring following this monitoring plan lies with the Zhangbei Manjing Windfarm Administration Office of the Beijing Guotou Energy Conservation Company (BG).

Mr. Deng Hui, Operation Department Manager of Zhangbei Manjing Windfarm, is responsible for the operation and maintenance, which includes the monitoring, of the windfarm.

Mr. Liu Yu, Project Manager of Operation Department Manager, is responsible for the daily monitoring and reporting.

## 6.2 Training

Carbon Resource Management has advised BG on monitoring work.
The staff who are responsible for electricity meter reading and recording, and who are responsible for auditing these metered data have been trained according to the CDM monitoring and management manual for the Zhangbei Manjing Windfarm Project.

## 6.3 Calibrations

The Power Interchange Agreement between the Zhangbei Manjing Wind Farm and the North China Power Grid Company Limited defines the metering arrangements and the required quality control procedures to ensure accuracy.

[2] Source: China Electric Power Yearbook (2006 Page 568).

The metering equipment are calibrated and checked annually for accuracy. The metering equipment shall have sufficient accuracy so that any error resulting from such equipment shall not exceed 0.5% of full-scale rating. The net energy output registered by the meters alone will suffice for the purpose of billing and emission reduction verification as long as the error in the meters is within the agreed limits.

Calibration is carried out by North China Power Grid with the records being supplied to the Zhangbei Manjing Wind Farm, and these records will be maintained by the Zhangbei Manjing Wind Farm and the appointed third party.

Both meters shall be jointly inspected and sealed on behalf of the parties concerned and shall not be interfered with by either party except in the presence of the other party or its accredited representatives.

All the meters installed shall be tested by North China Power Grid within 10 days after:

- the detection of a difference larger than the allowable error in the readings of both meters; and/or
- the repair of all or part of meter caused by the failure of one or more parts to operated in accordance with the specifications.

If any errors are detected the party owning the meter shall repair, recalibrate or replace the meter giving the other party sufficient notice to allow a representative to attend during any corrective activity.

Should any previous months reading of the main meter be inaccurate by more than the allowable error, or otherwise functioned improperly, the net energy output shall be determined by (a) first, by reading backup meter, unless a test by either party reveals it is inaccurate; (b) if the backup system is not with acceptable limits of accuracy or is otherwise performing improperly the Zhangbei Manjing Wind Farm and North China Power Grid shall jointly prepare an estimate of the correct reading; and (c) if the North China Power Grid and the Zhangbei Manjing Wind Farm fail to agree then the matter will be referred for arbitration according to agreed procedures.

No meter errors have occurred to-date at the Zhangbei Manjing Windfarm. Calibration took place as per schedule. Calibrations were carried out by staff from the North China Power Grid on the dates given in
Table 12 below.

**Table 12 Dates of calibrations of monitoring equipment**

| Equipment | Dates of calibrations |
|---|---|
| Main metering equipment at substation owned by the North China Power Grid | 28 March 2007 |

| | |
|---|---|
| Back-up metering equipment owned by Zhangbei Manjing Wind Farm | 27 July 2007 |

The calibration results show that both meters operate in accordance with the industry standards and are qualified to measure the electricity supplied to the grid and consumed by the windfarm.

### 6.4 Quality control

Monthly net generation data has been approved and signed off by staff who are responsible for recording meter reading in the 110kV substation installed on the windfarm side of the sub-station, and cross checked with receipt from North China Power Grid.

The additional data required and collected annually from the China Electric Power Yearbook and China Energy Statistical Yearbook has been approved and signed off by Ms. Chen Dongjuan.

## 7 Emission reduction calculations

### 7.1 Project emissions

As a renewable energy project, project emissions are zero.

### 7.2 Baseline emissions

**Table 13 Monthly emission reductions achieved**

| Month | EG (MWh) | EF ($tCO_2e$/MWh) | BE ($tCO_2e$) |
|---|---|---|---|
| Sep 2006 | 7,530.20 | 1.017 | 7,658.22 |
| Oct 2006 | 10,773.41 | 1.017 | 10,956.56 |
| Nov 2006 | 13,625.00 | 1.017 | 13,856.63 |
| Dec 2006 | 13,778.03 | 1.017 | 14,012.25 |
| Jan 2007 | 8,086.85 | 1.017 | 8,224.32 |
| Feb 2007 | 11,211.82 | 1.017 | 11,402.42 |
| Mar 2007 | 13,161.85 | 1.017 | 13,385.60 |
| Apr 2007 | 12,911.09 | 1.017 | 13,130.58 |
| May 2007 | 14,777.97 | 1.017 | 15,029.19 |
| Jun 2007 | 8,317.05 | 1.017 | 8,458.44 |
| Jul 2007 | 5,626.02 | 1.017 | 5,721.67 |
| Aug 2007 | 7,304.08 | 1.017 | 7,428.25 |
| **Total** | 127,103.38 | 1.017 | 129,264.13 |

### 7.3 Leakage emissions

As a relatively small renewable energy project, leakage from the project are considered zero.

### 7.4 Summary of emission reductions during the monitoring period

**Table 3 Emission reduction calculation ($tCO_2e$)**

| Period | Project emissions | Baseline emissions | Leakage | Emission reduction |
|---|---|---|---|---|
| 1 September 2006 to 31 August 2007 | 0 | 129,264.13 | 0 | 129,264.13 |