UNFCCC Clean Development Mechanism Monitoring Report

Aços Villares Natural gas fuel switch project

CDM registration number: 1037

Monitoring period: 01/01/03 – 30/04/07

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Project background

Aços Villares Natural gas fuel switch project was registered as a CDM project by the UNFCCC on 19 May 2007 under reference number 1037.

Further background on this project can be found in the PDD and associated documents, which are available on the UNFCCC website:

http://cdm.unfccc.int/Projects/DB/DNV-CUK1175080668.97/view.html

Parties involved are Brazil (Host Country) and United Kingdom and Northern Ireland of Great Britain (Annex 1 Party). The project participants are Aços Villares S.A. (project developer and operator) and EcoSecurities Ltd. (carbon adivisor).

Monitoring background

The basis for the calculation of emission reductions is the monitoring plan in the Project Design Document. The calculation of emission reduction applies the methodology AMS-III.B ver 10.

There are no remaining open issues related to monitoring after completion of project validation.

Monitoring results

Emission reduction

The calculated emission reductions amount to **154.570 ton CO_2eq**.

Monitoring period covered

This is the first monitoring report of this project. It covers the period 1 January 2003 (01/01/2003) up to 30 April 2007 (30/04/2007).

Presentation of monitoring results - spreadsheet

All monitoring data have been included in an Excel workbook. This includes:

1. Front page. This worksheet contains the project description and contact details.
2. CER calculation. This worksheet contains the calculation of emission reductions of each project component and general notes.
3. Data summary. Contains the raw monitoring data submitted by the project developer.
4. Reference data. Shows standard and reference values used in calculations.

Calculation methodology

Formulae used to estimate the anthropogenic emissions by sources of GHGs in the baseline using the baseline methodology for the applicable project category in appendix B of the simplified modalities and procedures for small-scale CDM project activities:

Fuel Switch

According to the simplified methodology for type III.B small-scale emission reduction projects, the baseline emissions are calculated based on emissions of the facility expressed as emissions per unit of output

The Baseline emissions were calculated using historical consumption of fuel oil and the actual output for each equipment included in the project activity, according to the following formula:

$BE = \sum P * Ri * EF\_oil$

P = production (in tons)
R*i* = quantity of fuel that would be consumed to produce 1 ton in equipment *i* (in ton oil/ton)
EF_oil = emission factor of the baseline fuel (in tCO_2e / ton oil)

The emission factor (in ton CO_2e/ton) used for each group of equipments is listed above.

Equipment	Factor **r**
M1	0,24
M2	0,03
M3	0,07
M4	0,12
M5	0
M6	0,11

Equipment	Factor **r**
C1	0,07
C2	0,22
C3	0,28
C4	1,05
C5 bur	0,85
C5 lft	0,87
C6 bur	0,35

According to the same guidelines for type III.B small-scale emission reduction projects, the project emissions are calculated based on those emissions related with the use of fossil fuel after the fuel switch according to the following formula:

$PE = NG * EF\_ng$

NG = consumption of natural gas (in m^3 of NG)
EF_ng = emission factor of natural gas (0.0021 tCO_2e / m^3 NG)

For the project activity, calculation of leakage is not applicable because there is no equipment transferred from another activity. Therefore, as per the Simplified Procedures for SSC Project Activities no leakage calculation is required.

Table 1 – baseline, project emissions and emissions reduction by year

Baseline Emission	*Symbol*	*Units*	2003	2004	2005	2006	2007
$= \Sigma P * R_i$	BE	tCO_2e	69.252	143.585	139.896	141.264	46.268

Project Emission	*Symbol*	*Units*	2003	2004	2005	2006	2007
$= \Sigma$ NG * EF_NG	PE	tCO_2e	55.635	104.818	95.178	97.305	32.759

Emission Reduction	*Symbol*	*Units*	2003	2004	2005	2006	2007
PDD estimation	[ER]	tCO_2e	14.397	39.036	45.025	45.966	15.322
= BE - PE - L	ER	tCO_2e	13.617	38.767	44.718	43.959	13.509

TOTAL	**154.570**