ANNUAL REPORT OF THE MONITORING PROGRAM

PERIOD: 01 APRIL 2004 – 31 MARCH 2006

PROJECT NAME	POECHOS 1
INSTALLED CAPACITY	15,4 MW
PARTICIPANTS	SINERSA - Operator World Bank – Carbon Funding Business, Carbon Prototype Fund Dutch Government
TECHNICAL DESCRIPTIÓN OF THE PROJECT	
Project Location	Department of Piura, Peru
Region / State / Province	Department of Piura (Grau Region)/ Province of Sullana / District of Lancones
Classification of Project Activity	Hydroelectric power production
Number of Area of Responsibility	1
Area of Responsibility	Renewable Power
Project Activity	Generation of Renewable Power connected to the Grid. Additional Electric Capacity from a Hydroelectric Power Plant with an existing Reservoir, without volume increase
Technology used	The technology is based on two (2) conventional Kaplan turbines and two (2) Synchronic Generators

1. DESCRIPTION OF METHODOLOGY USED

The amount of tCO2 is determined for the project, with emission reduction as a result of the project operation, using the Combined Margin (CM). ACM0002

The CM is the simple average between the Operation Margin (OM) and the Building Margin (BM), thus the methodology is the following:

$$CM = 0,5(OM) + 0,5(BM)$$

The procedure used is as mentioned in our MP.

STEP 1. CALCULATION OF OPERATION MARGIN

The methodology used is Dispatch Data Analysis.

DDA-OM = E_OMy/EGy

The steps followed for this are as follows:

- First the dispatch data provided by COES are received, which includes dispatch data every 15min; the data is then processed to obtain corresponding datae every Hour.
- The variable cost records are also received, and are used to determine the Ranking of operation, in function of the Santa Rosa Bar Equivalent Cost, for the Peak Hours block.
- According to this ranking, the Thermal Power Stations are arranged in columns.
- The resulting data is entered in sheets #3 to #14 of the book: Poechos DDA-OM.xls
- In these same sheets, the Project Power Station Hourly Production is entered in column EE. Such information comes from the records sent by the client ENOSA.
- According to information provided by COES, the incorporation of New Power Stations or Units is not being considered.
- The results obtained were as follows:

Period April 2004 – March 2005

E_OMy:	**SUM Egh*EF_DDh**	25 452	34 274	**:EGy**
EOMy/Egy:	**Operating Margin**	**DDA_OM**	**0.74259**	**:EF_OMy DD (TCO2/MWh)**

Period April 2005 – March 2006

E_OMy:	**SUM Egh*EF_DDh**	42,414	57,348	**:EGy**
EOMy/Egy:	**Operating Margin**	**DDA_OM**	**0.73959**	**:EF_OMy DD (TCO2/MWh)**

STEP 2: CALCULATION OF BUILDING MARGIN

- The Book Poechos BM2.xls is used.
- COES reports that there are no new power stations or units for the period April 2004 - March 2005.
- COES reports that Yuncan and Santa Rosa power stations were incorporated for the period April 2005 - March 2006.
- The annual production for years 2004 (period April 2004 - March 2005) and 2005 (period April 2005 - March 2006) was recorded for the power stations recently incorporated into the system; these are classified by their respective technology.
- The following results were obtained:

Period April 2004 – March 2005

Technology for Selected Samples	Last year's Generation (GWh)	% by technology	APFR	C	O	44/12	CO2 Emissions (tCO2)
Carbon	721.22	19%	7 867.88	25.80	0.980	3.67	729 416
D2	1.09	0%	11.26	20.20	0.990	3.67	825
R6	136.50	4%	1 143.33	21.10	0.990	3.67	87 571
R500	0.00	0%	0.00	21.10	0.990	3.67	0
Dry Gas	806.01	21%	8 928.10	15.30	0.995	3.67	498 362
Methane Gas	264.18	7%	2 926.26	14.50	0.995	3.67	154 802

Dry Gas CC	0.00	0%	0.00	15.30	0.995	3.67	0
Hydroelectric plants	1 910.73	50%	0.00	0.00	0.000	0.00	0
Total	3 839.73	100%					1 470 976

BM2=	0.38309	tCO2//MWh

CALCULATION OF CM

DDA-OM=	0.74259
BM2=	0.38309
CM= 0,5*(DDA-OM + BM2)	**0.56284**

Period April 2005 – March 2006

Technology for Selected Samples	Last year's Generation (GWh)	% by technology	APFR	C	O	44/12	CO2 Emissions (tCO2)
Carbon	774.33	16%	8,447.19	25.80	0.980	3.67	783,122
D2	1.73	0%	17.81	20.20	0.990	3.67	1,306
R6	143.20	3%	1,199.45	21.10	0.990	3.67	91,870
R500	0.00	0%	0.00	21.10	0.990	3.67	0
Dry Gas	1,252.57	26%	13,874.67	15.30	0.995	3.67	774,477
Methane Gas	559.51	11%	6,197.63	14.50	0.995	3.67	327,860
Dry Gas CC	0.00	0%	0.00	15.30	0.995	3.67	0
Hidroelectric plants	2,140.65	44%	0.00	0.00	0.000	0.00	0
Total	4,871.99	100%					1,978,635

BM2=	0.40612	tCO2//MWh

CALCULATION OF CM

DDA-OM=	0.73959
BM2=	0.40612
CM= 0,5*(DDA-OM + BM2)	**0.57286**

STEP 3: PROJECT PRODUCTION FOR THE ASSESSMENT PERIOD

Apr-04	2,641.142	**Apr-05**	9,326.322
May-04	3,145.902	**May-05**	6,375.409
Jun-04	1,412.427	**Jun-05**	2,562.878
Jul-04	1,502.587	**Jul-05**	2,479.686
Aug-04	2,365.037	**Aug-05**	4,195.577
Sep-04	1,920.324	**Sep-05**	4,984.727
Oct-04	2,521.262	**Oct-05**	3,507.800
Nov-04	2,253.597	**Nov-05**	2,463.010
Dec-04	2,555.879	**Dec-05**	1,506.461

Jan-05	1,963.187	**Jan-06**	1,398.300
Feb-05	2,343.552	**Feb-06**	6,892.707
Mar-05	9447.958	**Mar-06**	10,344.095
TOTAL	**34,072.854**	**TOTAL**	**56,037.974**

Note: Since the preliminary report, which has been used as basis for payment of BM for the period 2004 – 2006, has been submitted in January 2006, the data for February and March 2006 has been estimated as shown on the following table:

Apr-04	2,641.142	**Apr-05**	9,326.322
May-04	3,145.902	**May-05**	6,375.409
Jun-04	1,412.427	**Jun-05**	2,562.878
Jul-04	1,502.587	**Jul-05**	2,479.686
Aug-04	2,365.037	**Aug-05**	4,195.577
Sep-04	1,920.324	**Sep-05**	4,984.727
Oct-04	2,521.262	**Oct-05**	3,507.800
Nov-04	2,253.597	**Nov-05**	2,463.010
Dec-04	2,555.879	**Dec-05**	1,506.461
Jan-05	1,963.187	**Jan-06**	1,398.300
Feb-05	2,343.552	**Feb-06**	4,500.000
Mar-05	9,447.958	**Mar-06**	6,000.000
TOTAL	**34,072.854**	**TOTAL**	**49,301.172**

STEP 4: SUMMARIZED CERs CALCULATION

Period April 2004 – March 2005 (Real)

Project	**Annual MWh**
Poechos I	34,072.854

Annual CERs (DDA-OM - BM2):

Project	**Annual MWH *Combined Margin**
Poechos I	**19,178**
DDA-OM=	0.74259
BM2=	0.38309
CM= 0,5*(DDA-OM + BM2)	0.56284

Period April 2005 – March 2006 (Estimated)

Project	**Annual MWh**
Poechos I	49,301.17

Annual CERs (DDA-OM - BM2):

Project	**Annual MWH *Combined Margin**

Poechos I	**28,374**
DDA-OM=	0.76795
BM2=	0.38309
CM= 0,5*(DDA-OM + BM2)	0.57552

Period April 2005 – March 2006 (Real)

Project	**Annual MWh**
Poechos I	56,037.974

Annual CERs (DDA-OM - BM2):

Project	**Annual MWH *Combined Margin**
Poechos I	**32,102**
DDA-OM=	0.73959
BM2=	0.40612
CM= 0,5*(DDA-OM + BM2)	0.57286

TOTAL CERs

Project		
Poechos I - **Annual CERs**		
Period April 2004 – March 2005 (Real)	**19,178**	**19,178**
Period April 2005 – March 2006 (Estimated)	**28,374**	
Period April 2005 – March 2006 (Real)		**32,102**
TOTAL	**47.552**	**51,280**

Based on the data shown above, it can be seen that payment of (51,280 – 47,552) =3,728 CERs is still outstanding, which by applying the unit price of 4,1 EURO/tCO2, establishes the outstanding amount of 15,284.8 EURO.

2. **SUSTAINABLE DEVELOPMENT MONITORING PLAN (SDMP)**

Biannual Term – Compliance Format

Objetive 1: Environmental Sustainability		
Initiative	**Indicator[1]**	**Annual Accumulated Program**
Improvement of soil quality	Number of planted trees	More than 30 in the area near the power house of Poechos 1 Hydrolectric Power Plant
Responsibility	Number of environmental education programs for the local population (power saving)	Due to the delay of the State in commissioning the PSE Sullana and providing electricity to the population in the surroundings of the Poechos 1 Hydroelectric Power Plant, such activity has been postponed. Presently, the PSE Sullana is at the experimental operation stage and such programs have been scheduled for next year

Objetive 2: Social-Economic Sustainability		
Initiative	**Indicator[2]**	**Annual Accumulated Program**
Improvement of education standards	Scholarships granted for education of the local population	First year: 4 Second year: 4+ 2 The main problem was that local students were unable to pass the admission examination at UDEP, therefore the number of scholarships has been limited by the number of admitted students
Improvement of economic conditions	Number of workers hired from the local population	All the support personnel, 19 workers in total, come from the local population
	Purchases from local suppliers	First year: US$ 74.487 Second year: US$ 131,940
	Population has gained access to the electric power system as a result of the project construction activities	PSE Sullana is presently at the experimental operation stage and to date about 5000 families have been connected to the electric power system which has been installed thanks to the construction of the Poechos 1 Hydroelectric Power Plant and its high voltage 34 Km line between Sullana and the Poechos 1 Hydroelectric Power Plant

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