

02<sup>nd</sup> June 2007

# Monitoring Report

## "Antonio Moran" Wind Power Plant CDM Project in Argentina

### Project Design Document for Small-Scale CDM Projects

1<sup>st</sup> CREDITING PERIOD: 01<sup>ST</sup> NOVEMBER, 2001 TO 31<sup>ST</sup> JULY, 2006

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## **A. General Description of Project Activity**

### **A.1 Project Activity Title:**

"Antonio Moran" Wind Power Plant Project in Patagonia Region, Argentina (hereinafter referred to as **the Project**)

### **A.2 Project Activity Description:**

According to what has been stated in the **PIN (PROJECT IDEA NOTE)** preparation framework, and submission of the corresponding documentation (**PDD**) approved of by OAMD (Clean Development Mechanism, Argentinean Office), after finalizing the "**validation**" process with the Designated Operational Entity (**DNV**) and the definite "**Registration**" by the **United Nations CDM Executive Board**; we are able to point out that this local Cooperative Corporation of Public Utilities located at the City of Comodoro Rivadavia, Province of Chubut, Argentina, under the name of **Sociedad Cooperativa Popular Limitada de Comodoro Rivadavia (SCPLCR)**, is the cooperative corporation authorized to render the service of electric power distribution, purchased from the Patagonia Electrical Power Distribution System. A rapid increase in energy demand, which has been rising since 1990, forced the Cooperative to look for other alternative of satisfying this demand and at the same time of reducing the energy supply costs. For such purpose, the SCPLCR has chosen to set up its own power generation system exploiting the energy that can be generated from the wind; given the fact that Patagonia (the region where the city is located) presents an enormous potential for the exploitation of the wind.

After implementing a small pilot energy generation program of a wind farm located near the Project between 1994 and 1997; SCPLCR planned another wind power generation development which was projected for the year 2000. This project is the first large-scale project that the SCPLCR implements with a capacity of 10.56 MW including 16 wind turbines with a capacity of 660 KW. This project involved the generation of power and later distribution of the electricity generated by the plant to the users, and therefore substituting the electricity purchased from the Patagonia Region Power Distribution System, whose generation of electricity is mainly performed by Thermal Power Plants fuelled by natural gas and Hydroelectric Power Plants.

During the planning of this Project, SCPLCR succeeded in including the Project within the CDM Mechanisms. The financial analysis was carried out taking this situation into account and the conclusion of the analysis was that the project would not be financially feasible unless it received the credits corresponding to the emission reductions (CER's).

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This Project contributes to the sustainable development of the region regarding the following issues:

- Creation of job opportunities related to construction.
- Emission Reduction of air pollutants released by Thermal Power Plants fuelled by natural gas that are part of the Patagonia Power Grid.
- Country Development related to wind power generation, due to the reception of state-of-the-art technology for this type of business.

### **A.3 Project Participants:**

Project Participant in Host Country:

**\* SCPLCR (Sociedad Cooperativa Popular Limitada de Comodoro Rivadavia)**

San Martín 1641 CP U 9000 AJG - CC 163 Comodoro Rivadavia Chubut-Argentina

Project Participant in donor country:

**\* PCI (Pacific Consultants International)**

1-7-5 Sekido Tama-shi, Tokio 206-8550 Japan

**\* JCF (Japan Carbon Finance, Ltd.)**

1-3 Kudankita, 4-Chome, Chiyoda-ku, Tokyo 102-0073, Japan

### **A.4 Technical Description of Project Activity:**

#### **A.4.1 Location of Project Activity:**

A.4.1.1 Host Country

**Republic of Argentina**

A.4.1.2 Province

**Chubut**

A.4.1.3 City

**Comodoro Rivadavia**

A.4.1.4 Detailed description of geographical situation, including unique identification information of the project activity

Antonio Moran Wind Power Plant Project in Patagonia Region, Argentina



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A.4.1.5 Location of "Antonio Morán" Wind Power Plant in the city of **Comodoro Rivadavia**



#### **A.4.2 Type, category and technology of Project**

##### **Activity:**

Methodologies established in UNFCCC "Simplified Modalities and Procedures for Small-Scale CDM Project Activities (UNFCCC / CP / 2002/ 7 /Add.3)"

Type I: Renewable Energy Projects

I.D.: Renewable Electricity Generation for a Grid.

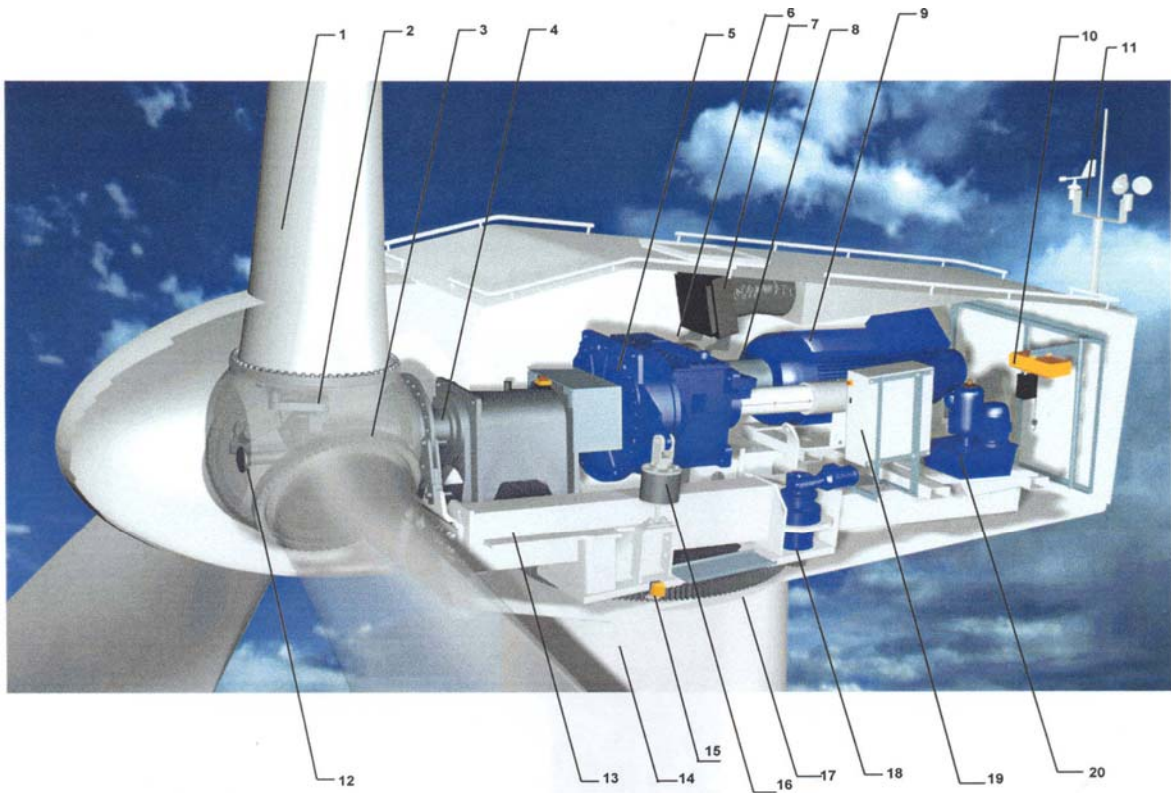
This renewable energy project involves the generation of wind power with its maximum capacity being below 15 MW, therefore, according to resolution 17/ CP.7, paragraph 6 (c)(i), this project is eligible to be included within this type of activities. As mentioned before, the project includes a Wind Power Plant of 10.56 MW for the generation of electric power and the supply of this energy to the Distribution Grid integrated with the Electric Distribution System of the Patagonia Region. Thus, and given its I.D. type Project Activity, the project is eligible.

#### **A.4.3 Technology of Project Activity**

- \* 16 Wind Power Generators
- \* Rotor, diameter of 47 meters (3 blades)
- \* Tower Height: 45 meters
- \* Turning Speed between 22,8 and 30,9 r.p.m
- \* Model GAMESA G47 - 660 Kw
- \* Nominal Power of the Plant 10,5 MW
- \* Wind Conditions for the generators: Average Speed  
10 m/sec.
- \* Voltage 690 Volts
- \* Frequency 50 HZ

A.4.3.1 Graphic of Equipment Installed

**GAMESA WIND POWER GENERATOR G47-660 kW**



- |     |               |     |                      |
|-----|---------------|-----|----------------------|
| 1.  | BLADE         | 11. | ANEMOMETER-WINDWANE  |
| 2.  | BLADE HUB     | 12. | PITCH CYLINDER       |
| 3.  | BLADE BEARING | 13. | BASE FRAME           |
| 4.  | MAIN SHAFT    | 14. | TOWER                |
| 5.  | GEARBOX       | 15. | YAW CONTROL          |
| 6.  | DISC BRAKE    | 16. | GEAR TIE ROD         |
| 7.  | OIL COOLER    | 17. | YAW RING             |
| 8.  | CARDAN SHAFT  | 18. | YAW GEAR             |
| 9.  | GENERATOR     | 19. | VMP-TOP CONTROL UNIT |
| 10. | HOIST         | 20. | HYDRAULIC UNIT       |



**A.4.4 Statement on how Greenhouse gas emissions (GHGs) are reduced by means of a CDM Project Activity.**

The Project reduces the CO<sub>2</sub> emissions produced by power plants fuelled by natural gas, which will continue to work in case the Project is not implemented, as it was identified in the baseline scenario (described in Section B) during the first crediting period. After the second crediting period, the baseline scenario should be revised carrying out an analysis of the fuel consumption in power generation of the Distribution System of Patagonia Region and its future connection to the National Power Transportation Grid.

Most of the energy of the Patagonia Grid is generated by Thermal Power Plants fuelled by natural gas. Approximately 80% of the energy is generated by Thermal Power Plants and the remaining 20% is generated by Hydroelectric Plants. Should the project not be implemented, the power Plants fuelled by natural gas shall generate the additional electricity that the wind power project would be able to generate.

The Power Distribution System of the Patagonia Region is essentially isolated from the National Energy Transportation System, as it is shown by the interchange data of electricity between the two Power Grids. The Federal Government is now improving the transmission capacity of the power lines so as to be able to connect both grids in the future but the Power Distribution System of Patagonia is expected to supply electricity to the National System since this last grid is the one that requires the most amount of electricity and because our region has the possibility of generating power to supply the Patagonia Distribution System.

As for the future prospective regarding dominant power sources, according to the Energy Department of Argentina, natural gas is expected to be the main source of energy for the Patagonia Distribution System. The reason for this is the fact that the selection of energy source depends on the private sector, which always tends to choose the lowest-cost energy source, which in this case is the usage of natural gas for power generation.

Therefore, the quantity of CO<sub>2</sub> emissions that Thermal Power Plants fuelled by natural gas will produce in order to generate electricity equivalent to 10,56 MW will be replaced by the Project Activity.

**A.4.4.1. Electric Power Generated by Thermal Power Plants connected to Patagonia Regional System in 1999.**

Source of Energy	Power Station	GWH	Total GWH
Natural Gas	Puerto Madryn	200	1.321
	Comodoro Rivadavia	177	79 %
	Pico Truncado 1	337	
	Pico Truncado 2	0	
	PATA21GE	308	
	PATA22GE	299	
Hydroelectric	Futaleufú	236	342
	F. Ameghino	106	21 %
<b>TOTAL</b>			<b>1.663</b>

Note: Futaleufú Hydroelectric Power Plant exclusively supplies electricity to ALUAR aluminium plant. Therefore, the quantity of energy indicated in the table corresponds to the amount in excess that said Plant supplies to the Patagonia Distribution System.

**A.4.5 Public Funding for Project Activity:**

No public funding has been received to carry out the Project.

**A.4.6 Confirmation that this small-scale Project Activity is not part of a larger Project Activity.**

As mentioned before, this Project does not form part of a larger Project activity, since the other two wind power generation projects developed by **SCPLCR** have been developed and operated as from 1994 to 1997 and on, they can not be registered as CDM projects.

**B. Baseline Methodology**

**B.1 Category title and reference of the Project applicable to the project activity.**

The baseline methodology used and approved of in the Project activity was adjusted to the procedures described in paragraphs 27, 28 and 29 of Appendix B of the simplified Modalities & Procedures for small-scale CDM Projects in category "I.D. Generation of Renewable Electricity Generation for a Grid".

**B.2 Category applicable to Project Activity:**

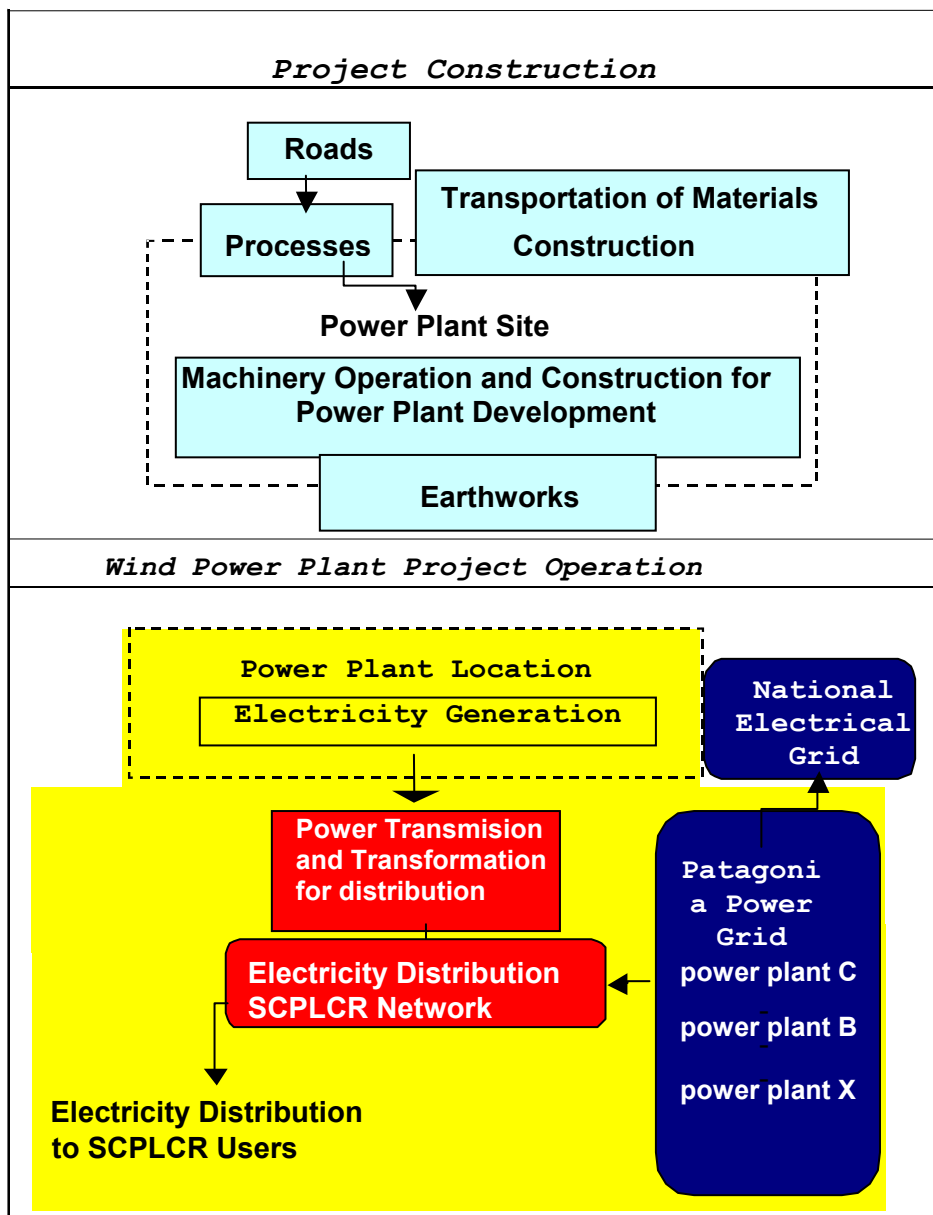
According to paragraph 23 of Appendix B of the Simplified M & P for small-scale category I.D. CDM projects, this project is included within renewable energy, which includes wind power generation plants, which supply electricity to a electric power grids and which substitute the consumption of fossil fuel for such generation of electricity.

The application of the Project has been justified and approved of owing to the fact that the wind power plant supplies power to the distribution system, substituting the power generation carried out by the thermal power plants fuelled by natural gas.

After the technical and investment barriers have been dealt with; the abovementioned explanations justifies the project's additionally as the investment barrier included four different aspects (investment barrier, technological barrier, barrier due to prevailing practice and other barriers) described in paragraph A, Appendix B of the simplified M & P for small-scale CDM activities.

**B.3 Description of the Project Limit in terms of Project Activity:**

According to paragraph 26, Appendix B of the simplified M & P for small-scale CDM projects, the project limit conforms to the physical and geographical site of the generation source of the renewable energy. Find below the zone within the project limits in the location.



**Note**

→ : Flow of Materials for power generation

■ : Activities related to GHG emissions

■ : Project Area Limit

#### **B.4 Baseline Details - Development:**

B.4.1 It should be noted that the baseline for the Project activity has been determined according to the methodology specified for small-scale CDM project activities category stated in Appendix B of the simplified M & P.

The baseline has been properly justified and approved of taking into account purchasing parameters of electric power from the Patagonia Power Grid; the potentiality of oil and gas resources, the fact that natural gas is mostly used for the thermal generation of electric power; the impossibility of having an appropriate location for the construction of a hydroelectric power plant close to the city of Comodoro Rivadavia; and the difficulty of reaching lower power generation costs within the area by means of other renewable energy generation projects.

These were the reasons that made SCPLCR carry out two pilot projects of wind power generation, totally financed by the remaining activities and public services that the Cooperative renders to its members; but in terms of the Project, it would be impossible to independently operate it financially speaking without the credit from the sale of CERs or without the help of the CDM.

B.4.2 The baseline was determined during this process (with the involvement of Pacific Consultants International - Mr. Kenji Asakawa - Planning Section - Resources Development & Management Division - 1-7-5 Sekido Tama-shi, Tokio 206-8550. Japan. Phone: +81-42-376-2061 - Fax: +81-42-372-6353 - E-mail: [asakawak@pcitokyo.co.jp](mailto:asakawak@pcitokyo.co.jp)); the duration of the Project Activity and the Crediting Period were also submitted and approved of; being **November 2001** the Date of Commencement of the Project Activity and **30 years** its operational life.

Regarding the crediting period and related information, a renewable Crediting Period was established with a **maximum of 7 years for each crediting period**. The first crediting period commences on **1st November, 2001**, and it **has a duration of seven (7) years**.

### **C. Monitoring, Methodology and Plan**

#### **C.1 Brief Reference to the methodology applied to the Project Activity and approved of by the CDM Executive Board.**

Everything has been done complying with paragraph 31, Appendix B of the simplified M & P for small-scale CDM project activities, where monitoring means measuring the renewable electric power generated with the technology installed in the location. Therefore, monitoring will include the measurement of the electric power generated by the wind turbines that comprise the Wind Power Plant of the Project.

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By means of this process and in order to receive the subsidies granted by the Province Government and the National Government, the SCPLCR is required to obtain the certificates for the measurement method of the electric power generated, since the subsidies are granted for each electric power unit (kwh) generated. Therefore, a normal national monitoring plan is applied in relation to the approved PDD planned monitoring.

The Type I.D. Methodology is applied to the Project due to the fact that the Project is a wind power generation plant to supply electric power to a grid; and due to the fact that the total generation capacity of the plant lies below 15 MW.

### C.3 Data to be monitored:

ID Number	Type of Data	Variable data	unit	Measured (m), calculated (c) or estimated (e)	Frequency	Proportion of the data to be monitored.	How to file data? (e-file)	What is the size of the file to be saved?	Comments
ID1	Total energy	Electricity generated by the Project	MWh	M	Monthly	100%	Electronic file	Until two years after the crediting period	The power installed in the Plant is determined. The quality of the data is controlled to verify the power values that Governments took into account for the subsidies.
ID2	Total energy	Fuel Consumption for every type of fossil fuel used by thermal Power Plants	t, m <sup>3</sup>	M	Annual	100 %	Electronic file		CAMMESA Annual Report is obtained.
ID3	Total energy	Electricity generated by every power plant connected to Patagonia Grid	MWh	M	Annual	100 %	Electronic file		CAMMESA Annual Report is obtained.
ID4	Total energy	Electricity supplied by other Power systems.	MWh	M	Annual	100%	Electronic file		CAMMESA Annual Report is obtained.

#### D. Calculation of GHG emission reductions

Based on the process in the approved calculation framework, the formulae provided in paragraph 29 of the appendix B of the simplified M & P for small-scale CDM project activity were selected, in which the baseline is the kWh produced by the renewable power generating unit multiplied by an emission coefficient calculated in a transparent and conservative way: the average of the "approximate operating margin" and the "build margin", or the measured emissions that it presents of the generation mixture. This methodology allowed the project participants to choose the most transparent one, which is the average between the "approximate operating margin" (OM) and the "build margin" (BM), called "combined margin" (CM), since the project participants had enough information to estimate the coefficient more transparently to calculate the GHG emission reduction. On the other hand, the Combined Margin approach conforms exactly to the approved consolidated baseline methodology ACM0002 of "Consolidated baseline methodology for grid-connected electricity generation from renewable sources", which can be applied to wind power Farm Project and which is more transparent than the simplified baseline methodology. Likewise, the coefficient is estimated more transparently by monitored data, namely fuel consumption and electricity generation of every power plant connected to the Patagonia Distribution System.

##### D.1 Brief summary of the approved calculation and considerations for the verification

The electric power supplied by the Patagonia grid is generated by power plants fuelled by natural gas, oil power plants and hydro power plant. Due to its low cost, natural gas will be increasingly used in power generation. Average fuel consumption rate (FCR) of natural gas in thermal power plants connected to the Patagonia grid in 1999 = 0.376 Nm<sup>3</sup>/ [kWh]

Source: CAMMESA acronym that stands for Compañía Administradora del Mercado Mayorista Eléctrico Sociedad Anónima.

OM = CO<sub>2</sub> emission factor of natural gas in thermal power plants (t-CO<sub>2</sub>/Nm<sup>3</sup>).

$$OM = (1) * (2) * (3) * (4) * (5) * 44/12$$

Where:

(1) = Carbon emission factor \* 1 ([t-C] / TJ)

\*1: Carbon emission factor: Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: TABLE I-2 CARBON EMISSION FACTORS (CEF).

(2) = Net calorific value \* 2 (Tcal/Nm<sup>3</sup>)

\*2: Net calorific value: established by CAMMESA

(3) = Carbon oxidation rate \* 3

\*3: Carbon oxidation rate: Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: TABLE I-4 FRACTION OF CARBON OXIDISED

(4) = Conversion rate (TJ/Tcal)

(5) = FCR (Nm<sup>3</sup>/ [kWh])

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$$OM = 15,3 \frac{tC}{TJ} * 8.4 * 10^{-6} \frac{Tcal}{Nm^3} * 0.995 * 4,1868 \frac{TJ}{Tcal} * 0,376 \frac{Nm^3}{[kWh]} * 44/12$$

$$= 0,000738 \frac{t-co_2}{[kWh]} (0.738 \text{ kg-CO}_2/[kWh])$$

For BM, the FCR average (Average Fuel Consumption Rate used in Natural Gas power plants) is the one estimated for the last five (5) power plants operated, as shown in the following table. Therefore, BM is calculated as follows:

$$BM = (1) * (2) * (3) * (4) * (5) * 44/12$$

$$BM = 15,30 \frac{tC}{TJ} * 8.4 * 10^{-6} \frac{Tcal}{Nm^3} * 0.995 * 4,1868 \frac{TJ}{Tcal} * 0,354 \frac{Nm^3}{[kWh]} * 44/12$$

$$= 0,000695 \frac{t-co_2}{[kWh]} (0.695 \text{ kg-CO}_2/[kWh])$$

### D.2 List of the power plants most recently built - base approved presentation

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 1999 (GWH)	Efficiency in 1999 (m3/KWh)
Natural Gas	PATA21GE	1996	308	0.329
	PATA22GE	1996	299	0.329
Total / Average Average of 20 % of recent Power Plants			606	0.329
Natural Gas	PATA21GE	1996	308	0.329
	PATA22GE	1996	299	0.329
	PMADTG22	1978 - 1985*	80	0.409
	PMADTG21	1978 - 1985*	121	0.410
	CRIVTG22	1978 - 1985 +	73	0.418
Total / Average Average of 5 Recent Power Plants			880	<u>0.354</u>
Total generation of Patagonia Grid It includes the planned plants			1663	
20 % of the Total			333	

Note: The most efficient natural gas power plants selected are PATA21GE and PATA22GE, operated after the most recent hydro power plant.



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Therefore, the Combined Margin (CM) is calculated as a baseline carbon emission factor (CEF) as follows:

$$\begin{aligned} \text{Baseline CEF} &= \text{CM} = (\text{OM} + \text{BM})/2 = (0.738 \text{ kg-CO}_2/[\text{kWh}] + 0.695 \text{ kg-CO}_2/[\text{kWh}])/2 \\ &= 0.717 \text{ kg-CO}_2/[\text{kWh}] \end{aligned}$$

The GHGs Annual baseline is calculated from the generated electricity supplied to the grid by the wind power plant Project, multiplied by the CEF abovementioned.

The Operating Rate (yield) of the existing wind turbines of the pilot projects already carried out is applied to calculate the amount of electricity to be supplied to the grid by the Project and the baseline scenario. This operating rate depends on the local climatic characteristics. It can be used to estimate the GHG emission of the Project and the baseline scenario. The average operating rate is 40.6%.

Therefore, the GHGs emission is calculated as follows:

Electricity supplied to the grid (MWh/year)	=	660 kW * 16 * 24 hours/day * 365 days/year * 40.6%	
	=	37,557 MWh/year	
	=	37,557 MWh/año	
Baseline GHGs emission t-CO <sub>2</sub> e/year	=	Electricity supplied to the grid MWh/year	* Baseline CEF kg-CO <sub>2</sub> e/kWh
	=	37,557 MWh/year	* 0.717 kg-CO <sub>2</sub> /kWh
	=	26,928 t-CO <sub>2</sub> e/year	

### D.3 Table providing values obtained when applying formulae related to the PDD presentation

GHGs emission reduction estimated during first crediting period:

Year	Baseline emission (t-CO <sub>2</sub> e)	Project emission (t-CO <sub>2</sub> e)	Emission Reduction (t-CO <sub>2</sub> e)
<b>Nov 2001 - Oct 2002</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>Nov 2002 - Oct 2003</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>Nov 2003 - Oct 2004</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>Nov 2004 - Oct 2005</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>Nov 2005 - Oct 2006</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>Nov 2006 - Oct 2007</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>Nov 2007 - Oct 2008</b>	<b>26.928</b>	<b>0</b>	<b>26.928</b>
<b>TOTAL</b>	<b>188.496</b>	<b>0</b>	<b>188.496</b>

D.4 Data control tables providing the values obtained when applying the formulae

It is carried out in order to obtain the definite data for the verification, the control for the years 1999, 2000, 2001, 2002, 2003, 2004, 2005 and January-July 2006 of:

D.4.1 Thermal Power Generation Equipment most recently in operation - generation values and efficiency per year from 1999 to July 2006:

EQUIPMENT	Year			Year		
	1999			2000		
	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3
PATA21GE	308	0,329	101.332	209	0,327	68.427
PATA22GE	299	0,329	98.371	314	0,327	102.689
PMADTG22	80	0,409	32.720	92	0,410	37.500
PMADTG21	121	0,410	49.610	60	0,410	24.649
CRIVTG22	73	0,418	30.514	89	0,418	37.172
TOTAL	881			764		
Weighted average		0,3548			0,3541	

Note: the data is provided by CAMMESA.

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EQUIPMENT	Year			Year		
	2001			2002		
	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3
PATA21GE	259,2	0,327	84.748	28,8	0,327	88.179
PATA22GE	283,6	0,327	92.750	9,9	0,327	30.265
CRIVTG23	0,0	0,0	0,0	13,3	0,434	5.788
PMADTG21	8,4	0,408	3.432	0,0	0,0	0,0
PMADTG22	0,0	0,0	0,0	0,0	0,0	0,0
CTC-C.RIV.	204,0	0,299	60.974	376,0	0,354	133.320
CRIVTG22	3,9	0,418	16.313	20,7	0,423	8.778
TOTAL	752,1			448,7		
Weighted average		0,356			0,373	

Note: 2001:PMADTG22 were out of Service, it is replaced by CTC-C.RIV. The data is provided by CAMMESA.

2002:PMADTG22 and PMADTG21 were out of Service, are replaced by CTC-C.RIV and CRIVTG23  
The data is provided by CAMMESA.

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EQUIPMENT	Year			Year		
	2003			2004		
	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3
PATA21GE	2,3	0,328	760	0,0	0,0	0
PATA22GE	0,0	0,0	0	0,0	0,0	0
CRIVTG23	103,3	0,425	43.902	80,7	0,424	34.290
PMADTG21	0,0	0,0	0	0,0	0,0	0
PMADTG22	0,0	0,0	0	0,0	0,0	0
CTC-C.RIV.	352,3	0,287	101.064	436,7	0,284	123.726
CRIVTG22	94,0	0,418	39.288	118,4	0,418	49.491
CRIVTG26	74,9	0,458	34.330	43,5	0,458	19.936
CRIVTG21	0,0	0,0	0	101,1	0,433	43.808
TOTAL	626,8			780,4		
Weighted average		0,383			0,403	

Note: 2003:PMADTG22, PMADTG21 and PATA22GE were out of service, are replaced by CTC-C.RIV., CRIVTG23 and CRIVTG26. The data is provided by CAMMESA.  
 2004:PMADTG22, PMADTG21, PATA21GE and PATA22GE were out of service, are replaced by CTC-C.RIV.,CRIVTG23, CRIVTG26 and CRIVTG21. The data is provided by CAMMESA.

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EQUIPMENT	Year			January to July		
	2005			2006		
	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3
PATA21GE	276,3	0,327	90.455	155,8	0,327	51.006
PATA22GE	268,7	0,327	87.865	167,4	0,327	54.740
CRIVTG23	77,8	0,433	33.687	66,7	0,433	28.881
PMADTG21	0,0	0,0	0	0,0	0,0	0
PMADTG22	0,0	0,0	0	0,0	0,0	0
CTC-C.RIV.	275,5	0,287	126.316	173,7	0,458	79.555
CRIVTG22	53,3	0,458	22.272	55,3	0,418	23.108
CRIVTG26	0,0	0,0	0	0,0	0,0	0
CRIVTG21	0,0	0,0	0	0,0	0,0	0
<b>TOTAL</b>	<b>951,6</b>			<b>618,9</b>		
<b>Weighted average</b>		<b>0,393</b>			<b>0,393</b>	

Note: 2005:PMADTG22 and PMADTG21 were out of service, are replaced by CTC-C.RIV.and CRIVTG23.  
The data is provided by CAMMESA.  
2006:PMADTG22 and PMADTG21 were out of service, are replaced by CTC-C.RIV.and CRIVTG23.  
The data is provided by CAMMESA.

**D.4.2 Thermal Generation Equipment of the entire system - generation values and efficiency**

EQUIPMENT	Year					
	1999			2000		
	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3	Generation (GWH)	Efficiency (m3/KWH)	Consumption Dam3
PMADTG21	121	0,410	49.610	60	0,410	24.649
PMADTG22	80	0,409	32.720	92	0,410	37.500
CRIVTG21	2	0,433	1.062	11	0,433	4.893
CRIVTG22	73	0,418	30.514	89	0,418	37.172
CRIVTG23	34	0,425	14.446	81	0,425	34.579
CRIVTG24	61	0,425	25.958	74	0,425	31.531
CRIVTG25	0	0,464	0	0	0,464	0
CRIVTG26	0	0,458	0	2	0,458	878
PTR1 - 21	0	0,536	0	0	0,536	0
PTR1 - 22	0	0,536	0	0	0,536	0
PTR1 - 23	111	0,418	46.347	127	0,418	52.965
PTR1 - 24	81	0,418	33.741	122	0,418	51.055
PTR1 - 25	105	0,418	43.759	111	0,418	46.285
PTR2 - 21	0	0,536	0	0	0,536	0
PTR2 - 22	0	0,536	0	0	0,536	0
PATA21GE	308	0,329	101.332	209	0,327	68.427
PATA22GE	299	0,329	98.371	314	0,327	102.689
<b>TOTAL</b>	<b>1.275</b>			<b>1.292</b>		
<b>Weighted average</b>		<b>0,3748</b>			<b>0,3812</b>	

Assumed value for PDD		0,376
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The provided data allows discerning the baseline scenario. In Table D.4.2, even though it is higher because it takes into account the total system equipment (less efficient machines), the trend for the year 2000 implies an increase in generation with less efficient equipment.

**D.5 TABLE SUMMING UP GENERATION DATA AND REDUCTION CALCULATIONS**

The attached table includes the calculated Baseline Emission Data (PDD); Generation Data taken from the measurement points; emission reduction calculation; CERs amount taking into account the quotation agreed upon by the project participants (**SCPLCR - JCF**) - **ERPA (EMISSION REDUCTION PURCHASE AGREEMENT)** .

The data bears the original backup of the documentation, year after year, and for the period of the current VERIFICATION which comprises from **01<sup>st</sup> NOVEMBER, 2001 to 31<sup>st</sup> JULY, 2006** (Thermal Generation Equipment of the entire system - generation values and efficiency).

**D.5.1 TABLE SUMMING UP PRODUCTION DATA (MWh) PERIOD 2001-2006.**

The attached table includes the production data per year, in each **SMEC (measurement point)** for the Project equipment (endorsed documentation - information support).

<b>GAMESA SA WIND TURBINES PRODUCTION (MWh): 2001-2006*</b>							
<b>SMEC</b>	<b>WIND TURBINES</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006*</b>
POST 2	G13, 14,15		5.959,3	6.333,9	5.647,3	5.214,6	2.608,0
POST 3	G16U		1.798,5	1.954,2	1.890,7	1.803,1	846,6
POST 4	G3,4,5,6,7,8		13.545,6	14.853,5	13.874,9	13.592,6	7.562,5
POST 5	G1,2		4.635,9	5.042,8	4.978,0	4.662,2	2.644,1
POST 6	G11,12		4.417,2	4.663,6	4.146,9	3.505,1	1.867,9
POST 7	G9,10		2.119,2	1.852,5	1.231,0	1.919,0	1.025,2
<b>TOTAL</b>		<b>5.713,9</b>	<b>32.475,7</b>	<b>34.700,5</b>	<b>31.768,8</b>	<b>30.696,6</b>	<b>16.554,4</b>
<b>TOTAL 2001 - 2006* : 151.909,9 MWh</b>							
<b>* Generation until July, 2006</b>							

**D.5.2 "SAMPLE" TABLE OF A YEAR TAKEN FROM THE PERIOD TO BE VERIFIED (PRODUCTION DATA (MWh) MONTH - YEAR 2003)**

The attached table includes the production data per MONTH, for a specific year (**E.g. 2003**) in each **SMEC (measurement point)** for the Project equipment (endorsed documentation - information support).

**GAMESA SA WIND TURBINES PRODUCTION (kWh): 2003**

<b>PRODUCCION (kWh) AÑO 2003 MOLINOS GAMESA SA</b>													
<b>SMEC</b>	<b>Molinos</b>	<b>Ene-03</b>	<b>Feb-03</b>	<b>Mar-03</b>	<b>Abr-03</b>	<b>May-03</b>	<b>Jun-03</b>	<b>Jul-03</b>	<b>Ago-03</b>	<b>Sep-03</b>	<b>Oct-03</b>	<b>Nov-03</b>	<b>Dic-03</b>
PUESTO 2	GH13, 14,15	615.912	654.480	436.584	325.944	428.289	497.040	619.008	548.880	535.080	594.528	516.480	561.624
PUESTO 3	G16U	192.276	148.596	114.088	86.496	134.545	177.492	186.504	156.732	172.260	201.672	191.712	191.808
PUESTO 4	G 3,4,5,6,7,8	1.212.624	1.436.736	1.037.568	832.656	1.116.716	1.067.040	1.337.664	1.225.872	1.307.088	1.274.976	1.406.784	1.597.824
PUESTO 5	G 1,2	496.200	502.824	278.664	268.968	419.182	390.144	440.664	419.736	400.296	413.448	470.496	542.184
PUESTO 6	G 11,12	419.520	400.368	350.544	312.744	340.207	358.728	482.784	374.232	384.792	348.096	407.376	484.176
PUESTO 7	G 9,10	160.560	127.844	105.229	117.576	82.830	27.768	174.936	195.024	236.640	150.936	155.472	317.712
<b>TOTAL</b>		<b>3.097.092</b>	<b>3.270.848</b>	<b>2.322.676</b>	<b>1.944.384</b>	<b>2.521.769</b>	<b>2.518.212</b>	<b>3.241.560</b>	<b>2.920.476</b>	<b>3.036.156</b>	<b>2.983.656</b>	<b>3.148.320</b>	<b>3.695.328</b>
<b>TOTAL ANUAL</b>		<b>34.700.477 kWh</b>											

GLOSSARY: PUESTO: POST - MOLINOS: WIND TURBINE - Ene: January - Abr: April  
Ago: August - TOTAL ANUAL: ANNUAL TOTAL

Considering the values registered in the period to verify and indicated in the D.4.1 Tables (1999 to July 2006), the assumed values applying the formulates it approved in the PDD, are:

<b>Year</b>	<b>Baseline CEF = CM (Kg-CO2e/KWh)</b>
<b>1999</b>	<b>0.717</b>
<b>2000</b>	<b>0.669</b>
<b>2001</b>	<b>0.657</b>
<b>2002</b>	<b>0.687</b>
<b>2003</b>	<b>0.678</b>
<b>2004</b>	<b>0.740</b>
<b>2005</b>	<b>0.707</b>
<b>July 2006</b>	<b>0.707</b>



**D.5.3. 1<sup>st</sup> CREDITING PERIOD - CER - GAMESA SA WIND TURBINES (2001-2006) :**

Period	Baseline Emission (Year 1999: PDD) (t-CO2e/Period)	Generation (MWh/Period)	Emission Reduction (t-CO2e/Period)
Nov 2001-Oct 2002	26,928.00	32,752.86	22,329.80
Nov 2002-Oct 2003	26,928.00	33,293.59	22,621.98
Nov 2003-Oct 2004	26,928.00	33,283.16	24,205.24
Nov 2004-Oct 2005	26,928.00	31,269.29	22,283.25
Nov 2005-Jul 2006	20,196.00	21,311.05	15,066.91
<b>TOTAL</b>	<b>127,908.00</b>	<b>151,909.99</b>	<b>106,507.18</b>

<p><b>REFERENCES</b>                  CER: Certified Emission Reduction                  Baseline generation delivered to Grid: 37,557 MWh/year</p>	<p>.....                  Project Responsible                  Signature</p>
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## ANNEX I

ANNEX for the years 1999, 2000, 2001, 2002, 2003, 2004, 2005 and January-July 2006 :

D.2 List of the power plants most recently built, base approved presentation (PDD). In 1999:

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 1999 (GWH)	Efficiency in 1999 (m3/KWh)
Natural Gas	PATA21GE	1996	308.0	0.329
	PATA22GE	1996	299.0	0.329
Total / Average Average of 20 % of recent Power Plants			606.0	0.329
Natural Gas	PATA21GE	1996	308.0	0.329
	PATA22GE	1996	299.0	0.329
	PMADTG22	1978 - 1985*	80.0	0.409
	PMADTG21	1978 - 1985*	121.0	0.410
	CRIVTG22	Sep - 1983	73.0	0.418
Total / Average Average of 5 Recent Power Plants			880	<u>0.354</u>
Total generation of Patagonia Grid It includes the planned plants			1663.0	
20 % of the Total			333.0	

Note: The most efficient natural gas power plants selected are PATA21GE and PATA22GE, operated after the most recent hydro power plant.

D.2 List of the power plants most recently built, base approved presentation (PDD). In 2000:

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2000 (GWH)	Efficiency in 2000 (m3/KWh)
Natural Gas	PATA21GE	1996	209.0	0.327
	PATA22GE	1996	314.0	0.329
Total / Average Average of 20 % of recent Power Plants			523.0	0.327
Natural Gas	PATA21GE	1996	209.0	0.327
	PATA22GE	1996	314.0	0.327
	PMADTG22	1978 - 1985*	91.6	0.410
	PMADTG21	1978 - 1985*	60.1	0.410
	CRIVTG22	Sep - 1983	89.0	0.418
Total / Average Average of 5 Recent Power Plants			763.7	<u>0.354</u>
Total generation of Patagonia Grid It includes the planned plants			1290.0	
20 % of the Total			258.0	

D.2 List of the power plants most recently built, base approved presentation (PDD). In 2001:

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2001 (GWH)	Efficiency in 2001 (m3/KWh)
Natural Gas	CTC-C.RIV.	2001	204.0	0.299
	PATA21GE	1996	252.2	0.327
Total / Average Average of 20 % of recent Power Plants			456.2	0.313
Natural Gas	CTC-C.RIV.	2001	204.0	0.299
	PATA21GE	1996	252.2	0.327
	PATA22GE	1996	283.6	0.327
	PMADTG21	1978 - 1985*	8.4	0.408
	CRIVTG22	Sep - 1983	3.9	0.418
Total / Average Average of 5 Recent Power Plants			752.1	<u>0.356</u>
Total generation of Patagonia Grid It includes the planned plants			1260.0	
20 % of the Total			252.0	

Note: 2001:PMADTG22 were out of Service, it is replaced by CTC-C.RIV. The data is provided by CAMMESA.

D.2 List of the power plants most recently built, base approved presentation (PDD). In 2002

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2002 (GWH)	Efficiency in 2002 (m3/KWh)
Natural Gas	PATA21GE	1996	28.8	0.327
	PATA22GE	1996	9.9	0.327
Total / Average Average of 20 % of recent Power Plants			38.7	0.327
Natural Gas	PATA21GE	1996	28.8	0.327
	PATA22GE	1996	9.9	0.327
	CTC-C.RIV.	2001	376.0	0.354
	CRIVTG22	Sep - 1983	20.7	0.423
	CRIVTG23	1988	13.3	0.434
Total / Average Average of 5 Recent Power Plants			448.7	<u>0.373</u>
Total generation of Patagonia Grid It includes the planned plants			1213.0	
20 % of the Total			242.6	

Note: 2002:PMADTG22 and PMADTG21 were out of Service, are replaced by CTC-C.RIV and CRIVTG23. The data is provided by CAMESA.

**D.2 List of the power plants most recently built, base approved presentation (PDD). In 2003:**

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2003 (GWH)	Efficiency in 2003 (m3/KWh)
Natural Gas	CTC-C.RIV.	2001	352.3	0.287
	PATA21GE	1996	2.3	0.328
Total / Average Average of 20 % of recent Power Plants			354.6	0.308
Natural Gas	CTC-C.RIV.	2001	352.3	0.287
	PATA21GE	1996	2.3	0.328
	CRIVTG22	Sep - 1983	94.0	0.418
	CRIVTG23	1988	103.3	0.425
	CRIVTG26	1986	74.9	0.458
Total / Average Average of 5 Recent Power Plants			626.8	<u>0.383</u>
Total generation of Patagonia Grid It includes the planned plants			1373.0	
20 % of the Total			274.6	

Note: 2003: PMADTG22, PMADTG21 and PATA22GE were out of service, are replaced by CTC-C.RIV., CRIVTG23 and CRIVTG26. The data is provided by CAMESA.

D.2 List of the power plants most recently built, base approved presentation (PDD). In 2004:

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2004 (GWH)	Efficiency in 2004 (m3/KWh)
Natural Gas	CTC-C.RIV.	2001	436.7	0.284
	CRIVTG22	Sep - 1983	118.4	0.418
Total / Average Average of 20 % of recent Power Plants			555.1	0.351
Natural Gas	CTC-C.RIV.	2001	436.7	0.284
	CRIVTG22	Sep - 1983	118.4	0.418
	CRIVTG23	1988	80.7	0.424
	CRIVTG21	Feb - 1973	101.1	0.433
	CRIVTG26	1986	43.5	0.458
Total / Average Average of 5 Recent Power Plants			780.4	<u>0.403</u>
Total generation of Patagonia Grid It includes the planned plants			1379.0	
20 % of the Total			275.8	

Note: 2004:PMADTG22, PMADTG21, PATA21GE and PATA22GE were out of service, are replaced by CTC-C.RIV., CRIVTG23, CRIVTG26 and CRIVTG21. The data is provided by CAMMESA.

D.2 List of the power plants most recently built, base approved presentation (PDD). In 2005:

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2005 (GWH)	Efficiency in 2005 (m3/KWh)
Natural Gas	PATA21GE	1996	276.3	0.327
	PATA22GE	1996	268.7	0.327
Total / Average Average of 20 % of recent Power Plants			545.0	0.327
Natural Gas	PATA21GE	1996	276.3	0.327
	PATA22GE	1996	268.7	0.327
	CRIVTG22	Sep - 1983	53.3	0.418
	CRIVTG23	1988	77.8	0.433
	CTC-C.RIV.	2001	275.5	0.458
Total / Average Average of 5 Recent Power Plants			951.6	<u>0.393</u>
Total generation of Patagonia Grid It includes the planned plants			1109.0	
20 % of the Total			221.8	

Note: 2005:PMADTG22 and PMADTG21 were out of service, are replaced by CTC-C.RIV. and CRIVTG23.The data is provided by CAMMESA.



D.2 List of the power plants most recently built, base approved presentation (PDD). In period of January to July 2006:

Power Source	Power Plant	Commercial Operation Year (COY)	Generation in 2006 * (GWH)	Efficiency in 2006 * (m3/KWh)
Natural Gas	PATA21GE	1996	155.8	0.327
	PATA22GE	1996	167.4	0.327
Total / Average Average of 20 % of recent Power Plants			323.2	0.327
Natural Gas	PATA21GE	1996	155.8	0.327
	PATA22GE	1996	167.4	0.327
	CRIVTG22	Sep - 1983	55.3	0.418
	CRIVTG23	1988	66.7	0.433
	CTC-C.RIV.	2001	173.7	0.458
Total / Average Average of 5 Recent Power Plants			618.9	<u>0.393</u>
Total generation of Patagonia Grid It includes the planned plants			738.3	
20 % of the Total			147.7	

Note: 2006:PMADTG22 and PMADTG21 were out of service, are replaced by CTC-C.RIV. and CRIVTG23.The data is provided by CAMMESA.

\* The considered period is of January to July 2006.

## ANNEX II

ANNEX base approved presentation for the years 1999, 2000, 2001, 2002, 2003, 2004, 2005 and January-July 2006 - (D.4.2 Thermal Generation Equipment of the entire system - generation values and efficiency)- calculated Baseline Emission Data (PDD):

Information PDD - Power Plants most recently built												
Power Plant	Year											
	1999			2000			2001			2002		
	Gener. (GWH)	Efficiency (m3/KWH)	Cons. Dam3	Gener. (GWH)	Efficiency (m3/KWH)	Cons. Dam3	Gener. (GWH)	Efficiency (m3/KWH)	Cons. Dam3	Gener. (GWH)	Efficiency (m3/KWH)	Cons. Dam3
PATA21GE	308,0	0,329	101.332	209,0	0,327	68.427	252,2	0,327	84.748	28,8	0,327	88.179
PATA22GE	299,0	0,329	98.371	314,0	0,327	102.689	283,6	0,327	92.750	9,9	0,327	30.265
PMADTG22	80,0	0,409	32.720	91,6	0,410	37.500	0,0	0,000	0	0,0	0,000	0
PMADTG21	121,0	0,410	49.610	60,1	0,410	24.649	8,4	0,408	3.432	0,0	0,000	0
CRIVTG22	73,0	0,418	30.514	89,0	0,418	37.172	3,9	0,418	16.313	20,7	0,423	8.778
CTC-C.RIV.	0,0	0	0	0,0	0,000	0	204,0	0,299	60.974	376,0	0,354	133.320
CRIVTG23	0,0	0	0	0,0	0,000	0	0,0	0,000	0	13,3	0,434	5.788
CRIVTG26	0,0	0	0	0,0	0,000	0	0,0	0,000	0	0,0	0,000	0
CRIVTG21	0,0	0	0	0,0	0,000	0	0,0	0,000	0	0,0	0,000	0
TOTAL	881,0			763,7			752,1			448,7		
Weighted Average		0,3548			0,3541			0,356			0,373	

Power Plant	Year											
	2003			2004			2005			January to July 2006		
	Gener. (GWH)	Efficiency (m3/KWH)	Cons. Dam3	Gener. (GWH)	Efficiency (m3/KWH)	Cons. Dam3	Gener. (GWH)	Efficiency* (m3/KWH)	Cons. Dam3 *	Gener. (GWH)	Efficiency* (m3/KWH)	Cons. Dam3 *
PATA21GE	2,3	0,328	760	0,0	0,000	0	276,3	0,327	90.455	155,8	0,327	51.006
PATA22GE	0,0	0,000	0	0,0	0,000	0	268,7	0,327	87.865	167,4	0,327	54.740
PMADTG22	0,0	0,000	0	0,0	0,000	0	0,0	0,000	0	0,0	0,000	0
PMADTG21	0,0	0,000	0	0,0	0,000	0	0,0	0,000	0	0,0	0,000	0
CRIVTG22	94,0	0,418	39.288	118,4	0,418	49.491	53,3	0,418	22.272	55,3	0,418	23.108
CTC-C.RIV.	352,3	0,287	101.064	436,7	0,284	123.726	275,5	0,458	126.316	173,7	0,458	79.555
CRIVTG23	103,3	0,425	43.902	80,7	0,424	34.290	77,8	0,433	33.687	66,7	0,433	28.881
CRIVTG26	74,9	0,458	34.330	43,5	0,458	19.936	0,0	0,000	0	0,0	0,000	0
CRIVTG21	0,0	0,000	0	101,1	0,433	43.808	0,0	0,000	0	0,0	0,000	0
TOTAL	626,8			780,4			951,6			618,9		
Weighted Average		0,383			0,403			0,393			0,393	

\* Weighed data until Cammesa publish the Official Information of 2005 and 2007

## Antonio Moran Wind Power Plant Project in Patagonia Region, Argentina

The SCPLCR has carried out the monitoring of the achievement of the goals by means of the implemented PDD (Project General Manual) for "Antonio Moran" Wind Power Plant Project in the Patagonia Region, Argentina; in compliance with the International Standard ISO 9001:2000 - Quality Management System - since May, 2005.

To do so, the following actions were carried out until 31<sup>st</sup> July, 2006:

### **E.1 2005 Objectives and Goals Plan:**

Taking into account that the period being studied started in May/05; 72% of the objectives has been 100% achieved as planned; and the remaining 28% was rescheduled in **2006 Objectives and Goals Plan** (the causes are appropriately indicated in the **Non-Conformities** submitted for such purpose)

### **E.2 Internal Audit N°1 (12/14/2005):**

By the findings included in the Audit Report (taking ISO 9001:2000 as the Standard of Reference and the Management System described in the Project General Manual), the audited Management System has been implemented and is properly operating, despite the Non-Conformities and Observations detected, which have already been solved through appropriate Corrective and Preventive Actions. Likewise, an Improvement Opportunity suggested in the Internal Audit above mentioned has also been implemented.

### **E.3 Revision by the Direction N°1 (27/12/2005):**

In this Revision, the topics dealt with have been: the Annual Budget; Investment and Maintenance Annual Plan; Internal Audit Findings; Feedback of the Interested Parties; Corrective and Preventive Action Situation; Follow-up Actions of Previous Direction Revisions; Management System Planning which includes changes, adjustments, etc.; and Recommendations for Continuous Improvement. The revision final conclusion is that the resources assigned for the ongoing management have been appropriate and that the results obtained have been satisfactory, thanks to the proactive participation of the staff involved, who are going to be trained and supported for continuous management improvement, to add more value and encourage relationships which will benefit both parties, in accordance with the established company's Institutional Policy.

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### **E.4 2006 Objectives and Goals Plan:**

In this first part of the year (January-July/06), the objectives planned have been totally achieved (in due course). Therefore, we expect to continue with the same dynamic to be able to comply with the rest of the objectives and goals planned for the second part of the year 2006.

**E. 5 Internal Audit N°1 (07/21/2006):**

By means of the findings included in the Audit Report (taking ISO 9001:2000 as the Standard of Reference and the Management System described in the Project General Manual), the audited Management System has been implemented and is operating properly, despite the Non-Conformities and Observations detected, which have already been taken care of through appropriate Corrective and Preventive Actions, applied in each case in particular, within the agreed periods of time.

**E.6 Revision by the Direction N°1 (07/26/2006):**

In this revision, the topics dealt with have been: Annual Budget; Investment and Maintenance Annual Plan; Internal Audit Results for 2005; Measurement and Control Results; Feedback of the Interested Parties; Corrective and Preventive Action Situation; Follow-up Actions of Previous Direction Revisions; Management System Planning which includes changes, adjustments, etc.; and Recommendations for a Continuous Improvement.

After analyzing the abovementioned documentation, the conclusion drawn in this first 2006 revision is that the resources assigned for the ongoing management have been appropriate and that the results obtained have been satisfactory, thanks to the proactive participation of the people involved, who are going to be trained and supported for continuous management improvement, to add more value and encourage relationships which will benefit both parties till the end of 2006, achieving the objectives and goals planned and carrying out the tasks assigned in the documental system, in compliance with the current standards.

**F. Environmental Impact:**

**F.1 The documentation and analysis of the environmental impacts of the project activity have been carried out, as previously approved (PDD).**

The government of the Province of Chubut has enforced the environmental impact assessment (EIA) by LAW N° 4032, which requires the carrying out of the EIA for all types of power generation projects, regardless of their size.

According to the mentioned law, EIA has been performed at the appropriate period of time (October, 2000).

EIA concluded that the negative impacts of the Project would be insignificant, as described below:

- Air pollution caused during the construction stage will be controlled and limited; and, as verified, it will occur only during that period.
- The impacts on soil and flora will be neutral and of low incidence.
- The impacts on fauna will be neutral.
- The impacts on the landscape will be positive, and the project has a strong support from local people.

## **G. Comments from inhabitants**

**G.1 Brief description of the process by means of which local people were invited to make comments and compile antecedents:**

The Law that establishes the obligation to carry out the EIA, requires the submission of the Project in a Public Hearing. The referendum was conducted by the Environmental Management Office of the Province of Chubut on the 29th of December of the year 2000, with the participation of around 40 citizens of Comodoro Rivadavia.

### **G.2 Summary of the comments received:**

- Enquiries regarding possible damage during the project construction.
- How to avoid damage in native flora.
- Sincere support to the Project.

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**G.3 Report on how the received comments were taken into account:**

- **Enquiries regarding possible damage during the project construction:**

For the wind power generators a minimum excavation was carried out, using poor concrete in the foundation, and the remaining soil was transferred to the dumping site that the Municipality of Comodoro Rivadavia has designated for that purpose.

- **How to avoid damage in native flora:**

The Project site was chosen because several paths had been opened up in that area during the Pilot Projects. It is worth mentioning that there is no native flora in those areas.

In other sites, the SCPLCR offered a treatment to mitigate excessive damage to the native flora, based on the experience obtained from the pilot projects.

## ANNEX III : CONTACT INFORMATION FOR PROJECT PARTICIPANTS

### 1.1 Project Proponent

Organization:	Sociedad Cooperativa Popular Limitada de Comodoro Rivadavia (SCPLCR)
Street/P.O.Box:	San Martín 1641 CP 9000 - CC 163
Building:	
City:	Comodoro Rivadavia
State/Region:	Chubut
Postcode/ZIP:	
Country:	Argentina
Telephone:	+54-297-4472020
FAX:	+54-297-4466396
E-Mail:	info@scplcr.com
URL:	<a href="http://www.scplcr.com/">http://www.scplcr.com/</a>
Represented By:	
Title:	
Salutation:	
Last Name:	Ceragioli
Name:	Pedro
Department:	Technical Management
Mobile:	0297-154248930
FAX:	
Tel:	+54-297-4472020
Personal E-Mail:	<a href="mailto:Pceragioli@scplcr.com">Pceragioli@scplcr.com</a>

### 1.2 Project Advisor

Organization:	Pacific Consultants International (PCI)
Street/P.O.Box:	7-5, Sekido 1 Chome,
Building:	
City:	Tamashi,
State/Region:	Tokyo
Postcode/ZIP:	206-8550
Country:	Japan
Telephone:	+81-42-372-6201
FAX:	+81-42-372-6353
E-Mail:	asakawak@pcitokyo.co.jp
URL:	<a href="http://www.pci-world.com/">http://www.pci-world.com/</a>
Represented by:	
Title:	
Salutation:	
Last Name:	Kenji
Middle Name:	
First Name:	Asakawa
Department:	Planning Department
Mobile:	
Direct FAX:	+81-42-372-6353
Direct tel:	+81-42-372-6201
Personal E-Mail:	asakawak@pcitokyo.co.jp

## ANNEX III

### CONTACT INFORMATION FOR PROJECT PARTICIPANTS

#### 1.1 Project Participant

Organization:	Japan Carbon Finance Ltd. (JCF)
Street/P.O.Box:	1-3 Kudankita, 4-Chome, Chiyoda-ku, Tokyo 102-0073
Building:	
City:	
State/Region:	Tokyo
Postcode/ZIP:	
Country:	Japan
Telephone:	
FAX:	
E-Mail:	
URL:	<a href="http://www.">http://www.</a>
Represented by:	
Title:	
Salutation:	
Last Name:	Tomita
Middle Name:	Hiroshi
First Name:	
Department:	Management
Mobile:	
Direct FAX:	
Direct tel:	
Personal E-Mail:	



## **ANNEX IV**

### **GENERAL MANUAL OF THE PROJECT**

Find attached a copy of the "original" signed document, which is in possession of SCPLCR together with all the supporting documentation of the present VERIFICATION report.

## ANNEX V

### INFORMATION REGARDING THE MONITORING PLAN

According to the provisions of the National Law N° 25019, the National Executive Decree N° 1597, the Law of the Province of Chubut N° 4389, and the Decree N° 235, all of which determine the payment of the corresponding subsidies, the following clauses are established, which shall be applied in order to determine and monthly monitor the amount of power generated by the Antonio Morán Wind Power Plant, in relation to the equipment herein detailed:

**First Clause:** Description and location of the equipment involved:

- a) The equipment involved in the measurement of the generated power in Antonio Morán Wind Power Plant consists basically of eight measurement posts strategically distributed according to the wind power generators' location.
- b) These posts have voltage and current measurement transformers associated to an electronic three-phase recorder of indirect measurement, and each of them records what is generated by a group of wind turbines.
- c) The name and location of each measurement post is detailed below, as well as the wind turbines that the posts record.

Measurement Post N°	Measured wind turbine	Location
2	G 13H-G14H-G15H	Cerro Hermite
3	G16 U	Km4-Universidad-Cable 2
4	G3A-G4A-G5A-G6A-G7A-G8A	Cerro Arenal-Celda 11
5	G1A-G2A	Cerro Arenal-Pto. La Mata
6	G11CH-G12CH	Barrio Pietrobelli
7	G9CH-G10CH	Cerro Chenque-Cable 28

The measurement posts N° 1, 8 and 9 correspond to wind generators installed previously to this project.

**Second Clause:** Details of the equipment and instruments for the determination and measurement of the power generated monthly by the Wind Power Plant, described in the First Clause.

Antonio Moran Wind Power Plant Project in Patagonia Region, Argentina

- a) The wind power generators supply their generation to a medium voltage line (13.2KV), thus, it becomes necessary to have transformers of voltage and current measurement, that is, an indirect measurement is performed.
- b) All the measurement posts consist basically of voltage transformers (T.V.) of ratio 13.2/0.11KV; current transformers (T.I.) whose ratio depends on the amount of wind power generators measured; an electronic three-phase meter, and a V3A1 short circuit terminal of verification and contrast.

Measurement Post No	Measurement Transformers	Electronic Meter
2	Compact Module(voltage and current transformer) MAK brand, model MJV-outdoors Three-phase 15KV T.V.= 13,2/0,11Kv-Prest.60VA-Class 0,5 T.I. = 100-200/5Amp-Prest.30VA.-Class 0,5	N° 207845- ABB Brand AlphaII-AlR+Iqm; 1(6)A- 3x380/220-3x110/63,5V Class 1
3	Compact Module(voltage and current transformer) MAK brand, model MJV-outdoors Three-phase 15KV T.V.= 13,2/0,11Kv-Prest.60VA-Class 0,5 T.I. = 50-100/5Amp-Prest.30VA.-Class 0,5	N° 209948- ABB Brand AlphaII-AlR+Iqm; 1(6)A- 3x380/220-3x110/63,5V Class 1
4	Compact Module(voltage and current transformer) MAK brand, model MJV-outdoors Three-phase 15KV T.V.= 13,2/0,11Kv-Prest.60VA-Class 0,5 T.I. = 100-200/5Amp-Prest.30VA.-Class 0,5	N° 207843- ABB Brand AlphaII-AlR+Iqm; 1(6)A- 3x380/220-3x110/63,5V Class 1
5	Compact Module(voltage and current transformer) MAK brand, model MJV-outdoors Three-phase 15KV T.V.= 13,2/0,11Kv-Prest.60VA-Class 0,5 T.I. = 50-100/5Amp-Prest.30VA.-Class 0,5	N° 209946- ABB Brand AlphaII-AlR+Iqm; 1(6)A- 3x380/220-3x110/63,5V Class 1
6	Compact Module(voltage and current transformer) MAK brand, model MJV-outdoors Three-phase 15KV T.V.= 13,2/0,11Kv-Prest.60VA-Class 0,5 T.I. = 50-100/5Amp-Prest.30VA.-Class 0,5	N° 207847- ABB Brand AlphaII-AlR+Iqm; 1(6)A- 3x380/220-3x110/63,5V Class 1
7	Compact Module(voltage and current transformer) MAK brand, model MJV-outdoors Three-phase 15KV T.V.= 13,2/0,11Kv-Prest.60VA-Class 0,5 T.I. = 50-100/5Amp-Prest.30VA.-Class 0,5	N° 207848- ABB Brand AlphaII-AlR+Iqm; 1(6)A- 3x380/220-3x110/63,5V Class 1

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**Third Clause:** Details of the Measurement Records carried out and of the notifications sent to the National Energy Department and to the

## Antonio Moran Wind Power Plant Project in Patagonia Region, Argentina

authorities of the Province of Chubut, as regards the Electric Power Monthly generated by the Wind Power Plant.

- a) The production records corresponding to each Measurement Post are monthly sent to the Public Service Head Office of the Province of Chubut and to the Electric Power Federal Board, according to the provisions in the Minutes.
- b) Report files are available at the SCPLCR building in note and worksheet format.

**Fourth Clause:** Antecedents of calibration tasks, start-up of the Equipment mentioned in the First Clause, electric adjustment tests, generator loading, commercial performance tests of the Plant, manufacturer's recommendations. Records of the commercial commissioning of the Wind Power Plant Generator Groups.

- a) The measurement modules (T.V. and T.I.) were received according to the test protocols carried out by the manufacturer as determined by IRAM Standards 2275 and 2271, where it is specified that the class is lower than 0.5.
- b) The same is true for the electronic meters which meet the IEC Standard 687.
- c) The installation was carried out accurately, using the certified, electronic, pattern power meters which are detailed below, to verify the wiring, phase sequence and the right measurement of the power generated.
- d) Electronic Pattern Meter; brand: SCHLUMBERGER; model SM3050 N° 00B17311; Class 0.02%. Certified INTI CEFIS N° 6.163.
- e) Electronic Pattern Meter; brand MTE; model PWS 1.3 N° 21684; Class 0.02%. Certified INTI CEFIS N° 4.839.

**Fifth Clause:** Antecedents of operation monitoring tests of the power generation and measurement equipment in the Wind Power Plant, carried out during maintenance tasks with own Personnel or an External Technical Auditor.

- a) The equipment involved in the measurement of the power generated by the wind power generators (measurement posts) is controlled on a preventive six month basis, by own Personnel following the steps indicated in the Internal Technical Procedure P - 5, Rev. 1 (Procedure for contrast and verification of indirect measurement of power).

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**Sixth Clause:** Details of the files corresponding to the amount of Electric Power Generated by the Equipment installed in the Wind Power

Antonio Moran Wind Power Plant Project in Patagonia Region, Argentina

Plant, documentation available and file system, which shall be kept for ten (10) years, being available for verification.

a) The production records corresponding to each Measurement Post are sent monthly to the Public Service Head Office of the Province of Chubut and to the Electric Power Federal Board, according to the provisions in the Record attached.

c) Report files are available at the SCPLCR building in note and worksheet format.

**Seventh Clause:** The National Energy Department and the Authorities of the Province of Chubut, in compliance with their duties as Authorities of Application of Laws N° 25019 and N° 4389, and with the aim of performing the monitoring and control of the Electric Power generated by the Wind Power Plant, are entitled, with previous written notification to the Sociedad Cooperativa Popular Limitada of Comodoro Rivadavia, to carry out:

- a) Technical Audits
- b) Accounting Audits

For this purpose, they have access to books and files about the electric power generated and supplied to the grid, and they are also entitled to verify, with their own criteria, the documentation and equipment available, regarding its performance and regular working hours.

**Eighth Clause:** Operating Structure of "Antonio Moran" Wind Power Plant.

**PLANNING OF THE WIND POWER PLANT OPERATION**  
**Project performance**

	SCPLCR	Administration Board	
	General Manager		
Technical Manager		Legal - Institutional Manager	Administrative Manager
Responsible for Operations	Operators		Accountant
Civil works			Administrative Assistant
Electro- Mechanical works			Training - Education
Measurement - Maintenance			Internal Auditor

The Authorities of the National Energy Department, the Authorities of the Province of Chubut and those of the SCPLCR share responsibility regarding the measurement, determination and quantification of the Power Generated by the Wind Power Plant, and the corresponding application of the subsidies established by National and Provincial Laws.

**ANNEX VI**

\* DRAWINGS OF "ANTONIO MORÁN" WIND POWER PLANT,  
DETAILING THE INSTALLED WIND POWER GENERATORS - CONTOUR  
LINES.

\* UNIFILAR DRAWING: MEASUREMENT POINTS - POSTS -  
INSTALLED SMECS



**SOCIEDAD COOPERATIVA POPULAR LIMITADA DE COMODORO RIVADAVIA**

**"ANTONIO MORAN" WIND POWER PLANT PROJET**

**1st Crediting Period CER: GAMESA SA Wind Turbines (2001-2006)**

Period	Baseline Emission PDD - (t-CO2e/Period)	Generation (MWh/Period)	Emisión Reduction (t-CO2e/Period)
Nov-2001 - Oct.	26.928,00	32.752,86	22.329,80
Nov-2002 - Oct.	26.928,00	33.293,59	22.621,98
Nov-2003 - Oct.	26.928,00	33.283,16	24.205,24
Nov-2004 - Oct.	26.928,00	31.269,29	22.283,25
Nov-2005 - Jul.	20.196,00	21.311,05	15.066,91
<b>TOTAL</b>	<b>127.908,00</b>	<b>151.909,95</b>	<b>106.507,18</b>

**REFERENCES**


CER: Certified Emisión Reduction

Baseline generation delivered to Grid : 37.557 MWh/year

.....  
Project Responsible Signature

Date	Date	Date
Prepared by	Revised by	Approved by


## ANNEX VIII

 <b>SCPL</b>	<b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>"ANTONIO MORAN" WIND POWER PLANT</b> <b>PRODUCTION (MWh) GAMESA SA WIND MILLS: 2001 - 2006*</b>								
	SMEC	WIND MILLS	2001	2002	2003	2004	2005	2006*	
	POSITION 2	GH13, 14,15		5.959,3	6.333,9	5.647,3	5.214,6	2.608,0	
POSITION 3	G16U		1.798,5	1.954,2	1.890,7	1.803,1	846,6		
POSITION 4	G 3,4,5,6,7,8		13.545,6	14.853,5	13.874,9	13.592,6	7.562,5		
POSITION 5	G 1,2		4.635,9	5.042,8	4.978,0	4.662,2	2.644,1		
POSITION 6	G 11,12		4.417,2	4.663,6	4.146,9	3.505,1	1.867,9		
POSITION 7	G 9,10		2.119,2	1.852,5	1.231,0	1.919,0	1.025,2		
<b>TOTAL</b>			<b>5.713,9</b>	<b>32.475,7</b>	<b>34.700,5</b>	<b>31.768,8</b>	<b>30.696,6</b>	<b>16.554,4</b>	
<table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;"><b>TOTAL 2001 - 2006* : 151.909,9 MWh</b></td> </tr> </table> <table border="1" style="margin: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;"><b>* Generation up to July 2006</b></td> </tr> </table>								<b>TOTAL 2001 - 2006* : 151.909,9 MWh</b>	<b>* Generation up to July 2006</b>
<b>TOTAL 2001 - 2006* : 151.909,9 MWh</b>									
<b>* Generation up to July 2006</b>									

Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by




## Cont. ANNEX VIII

 <b>SCPL</b>	<b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>ANTONIO MORAN WIND POWER PLANT</b>												
	<b>PRODUCTION (kWh) YEAR 2006 GAMESA SA WIND MILLS</b>												
SMEC	Wind mills	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06
POSITION 2	GH13, 14, 15	439.608	186.312	465.960	406.032	268.608	390.312	451.128					
POSITION 3	G16U	172.320	60.924	130.860	155.556	105.468	81.960	139.536					
POSITION 4	G 3,4,5,6,7,8	1.256.640	833.760	1.375.056	1.067.424	872.544	955.728	1.201.392					
POSITION 5	G 1,2	405.672	257.424	464.688	412.608	340.200	469.464	294.072					
POSITION 6	G 11,12	305.160	237.192	322.176	271.992	248.736	251.208	231.480					
POSITION 7	G 9,10	282.960	223.656	152.808	127.560	80.328	91.296	66.600					
<b>TOTAL</b>		<b>2.862.360</b>	<b>1.799.268</b>	<b>2.911.548</b>	<b>2.441.172</b>	<b>1.915.884</b>	<b>2.239.968</b>	<b>2.384.208</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>ANNUAL TOTAL</b>		<b>16.554.408 kWh</b>											


Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by

### Cont. ANNEX VIII

 <b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>ANTONIO MORAN WIND POWER PLANT</b> <b>PRODUCTION (kWh) YEAR 2005 GAMESA SA WIND MILLS</b>													
SMEC	Wind mills	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
POSITION 2	GH13, 14,15	516.000	257.688	517.464	621.024	474.888	504.048	425.688	414.000	426.144	311.760	455.664	290.256
POSITION 3	G16U	196.440	91.428	173.100	207.756	202.080	165.060	102.444	133.512	128.724	133.428	187.584	81.516
POSITION 4	G 3,4,5,6,7,8	1.304.400	690.672	1.324.512	1.498.560	1.257.984	1.189.728	1.127.232	1.102.224	1.129.152	887.904	1.262.256	817.968
POSITION 5	G 1,2	546.792	238.296	380.592	481.752	465.000	460.896	394.608	378.048	389.904	263.376	390.792	272.184
POSITION 6	G 11,12	485.712	254.880	375.600	412.272	235.080	133.776	199.320	286.584	317.088	233.592	295.344	275.808
POSITION 7	G 9,10	19.320	103.800	208.008	271.488	233.928	288	91.296	174.648	232.152	156.840	213.912	213.360
<b>TOTAL</b>		<b>3.068.664</b>	<b>1.636.764</b>	<b>2.979.276</b>	<b>3.492.852</b>	<b>2.868.960</b>	<b>2.453.796</b>	<b>2.340.588</b>	<b>2.489.016</b>	<b>2.623.164</b>	<b>1.986.900</b>	<b>2.805.552</b>	<b>1.951.092</b>
<b>ANNUAL TOTAL</b>		<b>30.696.624 kWh</b>											


Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by

## Cont. ANNEX VIII

 <b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>ANTONIO MORAN WIND POWER PLANT</b> <b>PRODUCTION (kWh) YEAR 2004 GAMESA SA WIND MILLS</b>													
SMEC	Wind mills	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	Oct-04	Nov-04	Dec-04
POSITION 2	GH13, 14,15	476.040	225.888	482.400	570.336	276.768	698.688	480.768	365.568	593.232	454.056	401.784	621.792
POSITION 3	G16U	145.500	66.060	156.840	201.768	77.316	240.444	139.536	103.944	213.924	180.384	147.972	216.960
POSITION 4	G 3,4,5,6,7,8	1.354.272	660.240	1.376.016	1.469.856	636.912	1.397.088	1.059.456	890.112	1.471.008	1.232.112	1.000.416	1.327.488
POSITION 5	G 1,2	430.920	211.800	457.296	486.720	234.600	585.840	367.680	292.656	535.776	473.112	367.488	534.120
POSITION 6	G 11,12	356.496	227.616	342.408	390.528	230.664	447.792	372.720	263.544	422.544	381.264	346.080	365.208
POSITION 7	G 9,10	219.552	130.728	208.344	259.224	161.664	249.264	2.232	0	0	0	0	0
<b>TOTAL</b>		<b>2.982.780</b>	<b>1.522.332</b>	<b>3.023.304</b>	<b>3.378.432</b>	<b>1.617.924</b>	<b>3.619.116</b>	<b>2.422.392</b>	<b>1.915.824</b>	<b>3.236.484</b>	<b>2.720.928</b>	<b>2.263.740</b>	<b>3.065.568</b>
<b>ANNUAL TOTAL</b>		<b>31.768.824 kWh</b>											


Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by

### Cont. ANNEX VIII


 <b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>ANTONIO MORAN WIND POWER PLANT</b> <b>PRODUCTION (kWh) YEAR 2003 GAMESA SA WIND MILLS</b>													
SMEC	Wind Mills	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03
POSITION 2	GH13, 14,15	615.912	654.480	436.584	325.944	428.289	497.040	619.008	548.880	535.080	594.528	516.480	561.624
POSITION 3	G16U	192.276	148.596	114.088	86.496	134.545	177.492	186.504	156.732	172.260	201.672	191.712	191.808
POSITION 4	G 3,4,5,6,7,8	1.212.624	1.436.736	1.037.568	832.656	1.116.716	1.067.040	1.337.664	1.225.872	1.307.088	1.274.976	1.406.784	1.597.824
POSITION 5	G 1,2	496.200	502.824	278.664	268.968	419.182	390.144	440.664	419.736	400.296	413.448	470.496	542.184
POSITION 6	G 11,12	419.520	400.368	350.544	312.744	340.207	358.728	482.784	374.232	384.792	348.096	407.376	484.176
POSITION 7	G 9,10	160.560	127.844	105.229	117.576	82.830	27.768	174.936	195.024	236.640	150.936	155.472	317.712
<b>TOTAL</b>		<b>2.481.180</b>	<b>3.270.848</b>	<b>2.322.676</b>	<b>1.944.384</b>	<b>2.521.769</b>	<b>2.518.212</b>	<b>3.241.560</b>	<b>2.920.476</b>	<b>3.036.156</b>	<b>2.983.656</b>	<b>3.148.320</b>	<b>3.695.328</b>
<b>ANNUAL TOTAL</b>		<b>34.700.477 kWh</b>											

Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by

### Cont. ANNEX VIII

 <b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>ANTONIO MORAN WIND POWER PLANT</b> <b>PRODUCTION (kWh) YEAR 2002 GAMESA SA WIND MILLS</b>												
SMEC	Wind mills	Jan-02 - Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02
POSITION 2	GH13, 14,15	867.500	575.400	640.242	447.100	526.500	433.800	350.688	407.688	693.216	488.544	528.648
POSITION 3	G16U	342.100	180.000	197.200	113.000	152.200	118.700	119.268	131.496	146.592	140.364	157.560
POSITION 4	G 3,4,5,6,7,8	2.228.600	1.133.900	1.298.397	953.600	1.166.500	989.100	944.256	931.488	1.507.536	1.115.760	1.276.416
POSITION 5	G 1,2	796.300	385.500	420.000	338.600	348.900	337.000	322.920	324.240	555.168	344.832	462.480
POSITION 6	G 11,12	745.600	401.400	392.993	353.100	456.700	314.800	297.216	266.280	413.568	367.104	408.432
POSITION 7	G 9,10	533.400	223.500	385.479	178.892	188.100	126.400	132.576	103.848	100.416	9.072	137.544
<b>TOTAL</b>		<b>5.513.500</b>	<b>2.899.700</b>	<b>3.334.311</b>	<b>2.384.292</b>	<b>2.838.900</b>	<b>2.319.800</b>	<b>2.166.924</b>	<b>2.165.040</b>	<b>3.416.496</b>	<b>2.465.676</b>	<b>2.971.080</b>
<b>ANNUAL TOTAL 32.475.719 kWh</b>												

Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by

 <b>SOCIEDAD COOPERATIVA POPULAR LIMITADA - COMODORO RIVADAVIA</b> <b>ANTONIO MORAN WIND POWER PLANT</b>		<b>PRODUCTION (kWh) YEAR 2001 GAMESA SA WIND MILLS</b>											
SMEC	Wind mills	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01
PUESTO 2	GH13, 14,15												
PUESTO 3	G16U												
PUESTO 4	G 3,4,5,6,7,8												
PUESTO 5	G 1,2												
PUESTO 6	G 11,12												
PUESTO 7	G 9,10												
<b>TOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.889.900</b>	<b>2.824.000</b>
<b>ANNUAL TOTAL 5.713.900 kWh</b>													

Date .....	Date .....	Date .....
Prepared by	Revised by	Approved by