CLEAN DEVELOPMENT MECHANISM
FORM FOR SUBMISSION OF BUNDLED SMALL SCALE PROJECT ACTIVITIES
(SSC-CDM-BUNDLE)

SECTION A. General description of the Bundle

A.1. Title of the Bundle:

>> Bundled Wind Power Project of Jeju Special Self-Governing Province in Korea

A.2. Version and Date :

>> Version 07 (31 December 2007)

A.3. Description of the Bundle and the subbundles :

>> The capacity of this wind project is 5.93 MW; 3 wind turbine generators of 0.66 MW, 3 wind turbine generators of 0.75MW and 2 wind turbine generators of 0.85MW. 2 wind turbine generators of 0.85MW are located in the Sinchang wind power plant and 3 wind turbine generators of 0.66 MW and 3 wind turbine generators of 0.75MW are located in the Haengwon wind power plant.

The bundled project activity consists of 2 sub-bundles.

- Sub-bundle 1: at the Haengwon wind power plant (0.66MW * 3EA + 0.75MW * 3EA)
- Sub-bundle 2: at the Sinchang wind power plant (0.85MW * 2EA)

The electricity generation from this project will contribute annual GHG reductions estimated at 9,201 tones of carbon dioxide equivalent.

Project activity	Type	Category	Technology/Measure
Bundled Wind Power Project of Jeju Special Self-Governing Province	**I**	**I.D** (Version 11: 18 May 2007)	This category comprises renewable energy generation including wind that supply electricity to electricity distribution system that would have been supplied by at least one fossil fuel fired generating unit. The proposed project activity satisfies Type I of small-scale project activity and falls into category I.D.

A.4. Project participants:

>>

Name of Party involved	Private and/ or Public entity(ies) Project participants(*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participants (Yes/ No)
Republic of Korea (host)	• Public entity : Jeju Special Self-Governing Province • Public entity : Korea Energy Management Corporation	No

SECTION B. Technical description of the Bundle:

B.1. Location of the Bundle:

B.1.1. Host Party(ies):

>> Republic of Korea

B.1.2. Region/State/Province etc.:

Sub-bundle	Province
1	Jeju Special Self-Governing Province
2	Jeju Special Self-Governing Province

B.1.3. City/Town/Community etc:

Sub-bundle	City/Town/Community
1	Jeju-Si Gujwa-Eup Haengwon-Ri
2	Jeju-Si Hangyung-Myon Sinchang-Ri

B.1.4. Details of physical location, including information allowing the unique identification of this Bundle:

>> The project is located in Jeju Special Self Province is located in southern part of the Republic of Korea. The Haengwon wind power plant is 35km east of Jeju city and the Sinchang wind power plant is 45km west of Jeju city shown in the figure below. In the addition, Haengwon wind power plant(#10 to 15#) and Sinchang wind power plant started generating electricity to the grid on April 2003 and February 2006 respectively.

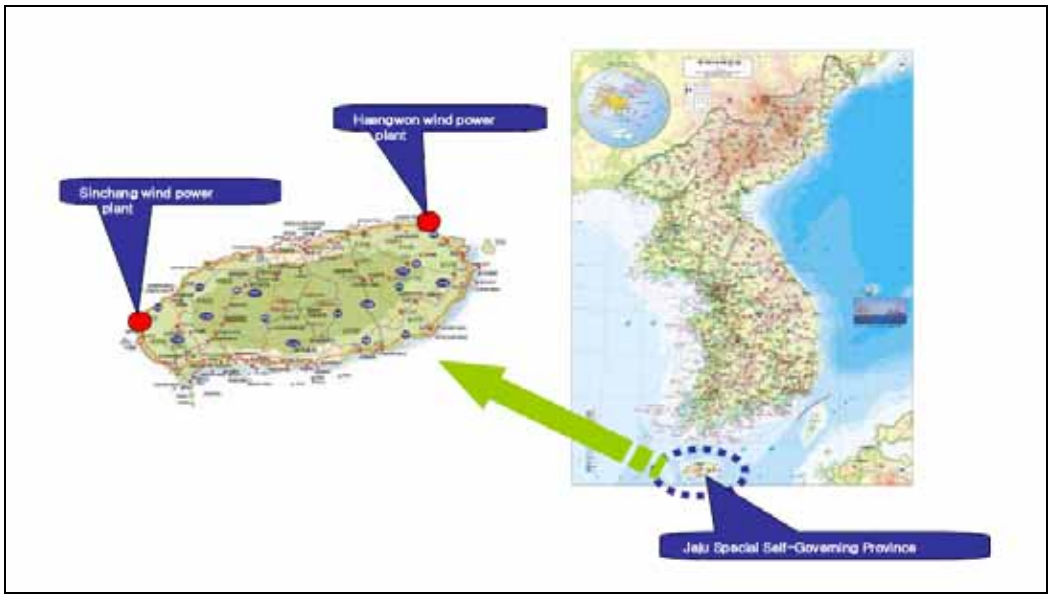

Figure 1 The location of Haengwon and Sinchang wind power plants

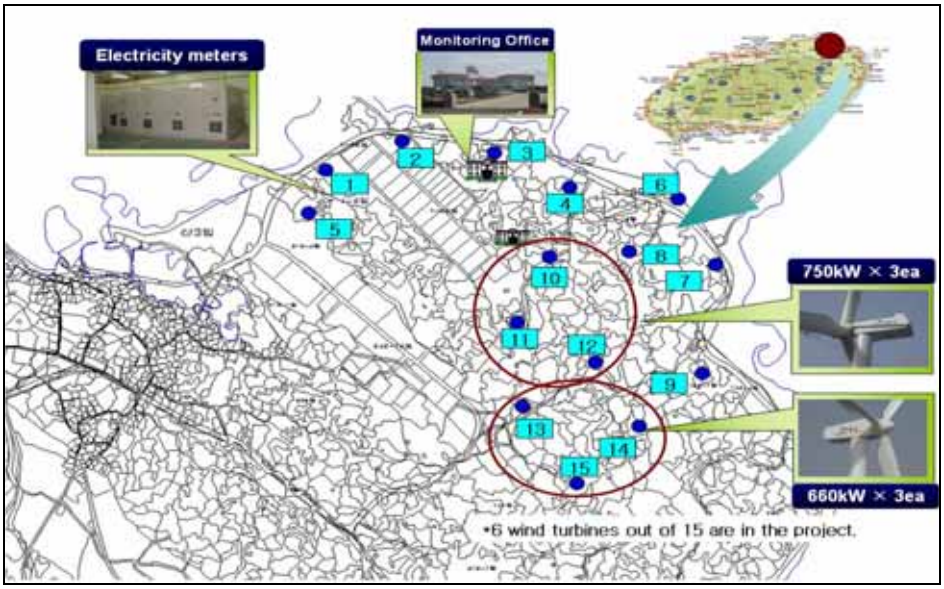

Figure 2 The location of Haengwon wind turbines

As shown in Figure 1-B, in case of Haengwon wind power plant, the recently constructed 6 wind turbines(#10~#15, October 2001 ~ April 2003) out of total 15 wind turbines are included in the project boundary. The 9 wind turbines excluded from the project boundary must not be considered in the future CDM projects. This circumstance satisfies confirmation that the small-scale project activity is not a debundled component of a large scale project activity (Refer to A.4.5 of PDD).

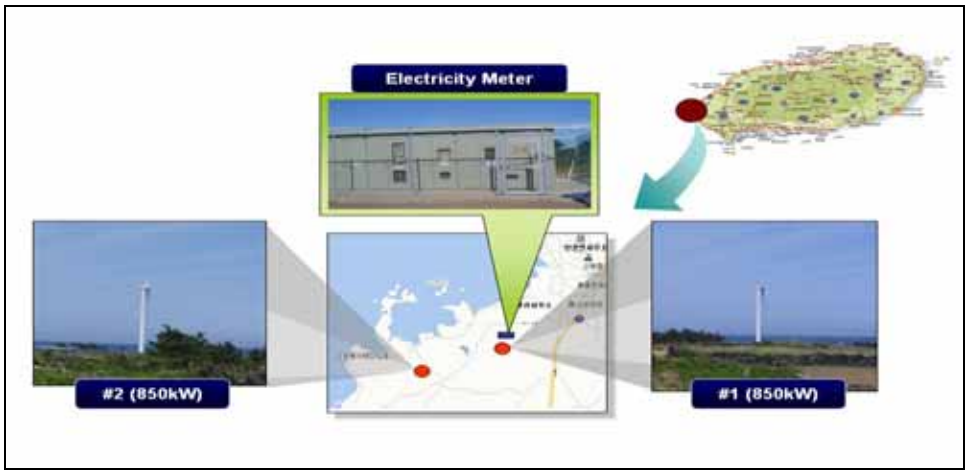

Figure 3 The location of Sinchang wind turbines

B.2. Type(s), category(ies) and technology/(ies)/Measure/(s) of the bundle:

>> The project falls into 'Renewable energy projects' of Type I of 'Appendix B of the simplified modalities and procedures for small-scale CDM project activities'. Additionally, the project falls into 'Grid connected renewable electricity generation' of category D and meets following criteria.

- ✓ The capacity of a project should be less than 15 MW;
- ✓ The project should concern renewable power generation and
- ✓ The electricity generated from the proposed project supply to a grid

Environmental safe and sound technology

The technology, which has used worldwide, used is safe on environment. Wind turbines installed in Haengwon-Ri are three 660kW turbines manufactured by Vestas and three 750kW turbines manufactured by NEG-Micon. In the meanwhile, two 850kW wind turbines manufactured by Vestas are for Sinchang-Ri. A technical specification of wind generator is summarized at table below.

Table 1 Specification of wind turbines

		660kW (Vestas)	**750 kW (NEG-Micon)**	**850 kW (Vestas)**
Design Wind Speed	Start up Wind Speed	4m/s	4m/s	4m/s
	Nominal Wind Speed	13m/s	13~16m/s	13m/s
	Stop Wind Speed	25m/s	25m/s	25m/s
Blade	Type	V-47	NM750/48	V-52
	The number of blade	3	3	3
	Diameter	47m	48.5m	52m
	Swept Area	1,735m^2	1,824 m^2	2,124 m^2
	Rotational Speed static	28.5RPM	22RPM	26RPM
Generator	Rated Voltage(VAC)	690	690	690
	Rated Current(A)	614	820/220	729
	Frequency(Hz)	60	60	60
Steel Tower	Corrosion Class (Outside and Inside)	Class II	Class II	Class II
	Height	45m	45m	49m
Output Control Type		Pitch control	Stall control	Pitch control
Noise Level(dB) at 150m		55.3	54.5	56.8
A detailed technical specification is available at http://www.vestas.com/vestas/global/en/Products/Wind_turbines/Wind_trubines.htm				

The total capacity of 8 wind turbines is 5.93MW and the utilization rate is 24.5% based on the amount of electricity generation to the grid in 2006, thus the annual electricity generation is expected to be 12,727MWh.

B.3 Estimated amount of emission reductions over the chosen crediting period:

>>

Years	**Estimation of annual emission reductions in tonnes of CO_2e**
2007	767
2008	9,201
2009	9,201
2010	9,201
2011	9,201
2012	9,201
2013	9,201
2014	9,201
2015	9,201
2016	9,201
2017	8,434
Total estimated reductions (tonnes of CO_2e)	92,010

Total number of crediting years	10
Annual average of the estimated reductions over the crediting period (tonnes of CO_2e)	9,201

SECTION C. Duration of the project activity / Crediting period:

C.1. Duration of the Bundle

C.1.1. Starting date of the Bundle:

>> Haengwon wind power plant : 17 January 2001
Sinchang wind power plant : 17 August 2004

C.2. Choice of crediting period and related information:

>> Fixed crediting period

C.2.1. Renewable crediting period:

>> NA

C.2.1.1. Starting date of the first crediting period:

>> NA

C.2.1.2. Length of the first crediting period:

>> NA

C.2.2. Fixed crediting period:

>>

C.2.2.1. Starting date:

>> 01/December/2007

C.2.2.2. Length:

>> 10 years

SECTION D. Application of a monitoring methodology:

>> Since the project is a grid connected renewable energy project, emission reduction quantity depends on the units of energy generated from wind power based on power plant and exported to the grid. Based on the monitoring methodology of AMS I.D., the methodology covers monitoring of units exported and the other parameters affecting the quantity of power export and CO2 emissions thereof.

The monitoring of this bundled project will be conducted by the section B.7 of the project design document.

Annex 1

CONTACT INFORMATION ON PARTICIPANTS IN THE BUNDLE

Organization:	Jeju Special Self-Governing Province
Street/P.O.Box:	2 Munyeon-Ro
Building:	
City:	Jeju City
State/Region:	Jeju Special Self-Governing Province
Postfix/ZIP:	690-700
Country:	Republic of Korea
Telephone:	82-64-710-2538
FAX:	82-64-710-2539
E-Mail:	bjhesp@hanmail.net
URL:	http://www.jeju.go.kr
Represented by:	
Title:	Governor
Salutation:	Mr
Last Name:	Kim
Middle Name:	
First Name:	Tae Hwan
Department:	Jeju Special Self-Governing Province
Mobile:	
Direct FAX:	82-64-710-2539
Direct tel:	82-64-710-2538
Personal E-Mail:	bjhesp@hanmail.net

Organization:	Korea Energy Management Corporation
Street/P.O.Box:	1157, Pungdukchun-2-dong, Suji-Gu
Building:	
City:	Yongin City
State/Region:	Gyonggi
Postfix/ZIP:	448-994
Country:	Republic of Korea
Telephone:	82-31-260-4831
FAX:	82-31-260-4559
E-Mail:	jhwoo@kemco.or.kr
URL:	http://www.kemco.or.kr
Represented by:	
Title:	President
Salutation:	Mr
Last Name:	Lee
Middle Name:	
First Name:	Kisub
Department:	Korea Energy Management Corporation
Mobile:	
Direct FAX:	82-31-260-4831
Direct tel:	82-31-260-4559
Personal E-Mail:	jhwoo@kemco.or.kr