Second Monitoring Report for 01/01/2006 -11/12/2006

56.25 MW bundled wind energy project in Tirunelveli and Coimbatore districts in Tamilnadu, India.

Ashok Leyland Project Services Ltd, INDIA

UNFCCC Ref. No. 0471
Date of registration: 25/09/2006

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Monitoring Report of 56.25 MW bundled wind energy project in Tirunelveli and Coimbatore districts in Tamilnadu, India.

1.Introduction

The Project activity is a bundled wind energy project managed by AL Wind Energy, a division of Ashok Leyland Project Services Ltd (Project Proponent). The project activity is a 56.25 MW wind energy project and is registered as a Clean Development Mechanism (CDM) project with CDM Executive Board of United Nations Framework Convention on Climate Change (UNFCCC). Subsequent to the registration of the project, the project proponents propose to verify the emission reductions generated by the project activity and request for issuance of Certified Emission Reductions (CERs). This monitoring report is prepared for verification of the emission reductions generated by the project activity.

2. Project Reference

Title of the project activity	:	56.25 MW bundled wind energy project in Tirunelveli and Coimbatore districts in Tamilnadu, India**.**
UNFCCC reference no. of the project	:	0471
Date of registration	:	25/09/2006
Number of the monitoring report	:	02
Version of the monitoring report	:	04
Date of the report	:	30/05/2007

3. Location of the project activity

The project activity is located in the villages of Pazhavoor, Thandayarkulam, Karungulam, Keelkulam Kothankulam, Elevenjipuram in Tirunelveli district and Gudimangalam, Kottamangalam, Ponneri, Tungavi and Thanthoni villages in Coimbatore district in Tamilnadu state in India.

The detailed location of the WTGs with respect to survey numbers (S.F number) in each village, unique high tension service connection number (HTSC) and date of commissioning of the respective WTG are provided in Appendix 1. One or many WTGs are connected under each one HTSC number.

4. Brief Process description

The project activity consists of bundle of 250 wind turbine generators (WTGs) for a total installed capacity of 56.25 MW, installed /proposed to be installed. Ashok Leyland Wind Energy (ALWE), a division of Ashok Leyland Project Services Ltd (ALPSL), was formed exclusively to establish, operate and maintain wind turbine generators installed by the group companies of Ashok Leyland. The electricity generated from the WTGs is connected to the state electricity grid, wheeled through the grid and consumed by the project proponents at various locations of the state. The state electric utility deducts 5% of the electricity connected to the grid as wheeling charges.

5. Type of Project

Type : Grid connected electricity generation from renewable sources

The project activity has applied Approved Methodology ACM 0002 /Version 05 dated 03 March 2006- Grid connected renewable electricity generation.

6. Period of verification

Period of verification of emission reductions **: 01/01/2006 - 11/12/2006**

7. Monitoring plan

As per monitoring report in the PDD, the data to be monitored are the following :

- Electricity supplied to the grid.
- Electricity imported from the grid.

The applicable grid is the southern regional grid of India. The electricity exported to the grid by the project activity and the electricity imported by the project activity from the grid are recorded every month by state electric utility, Tamil Nadu State Electricity Board (TNEB).

The meters are owned and maintained by TNEB and are calibrated as per the approved testing procedures by TNEB once a year.

The net generation is calculated as follows :

Sample calculation

Let the gross electricity supplied (exported) to the grid by the project activity be : 'X' MWh

Let the electricity imported from the grid by the project activity be : 'Y' MWh

The net electricity generation, EG = ((X - (X * (0.05)) - Y

(MWh) (MWh) (MWh)

where 5 % of electricity exported by the project activity is deducted as "Wheeling Charges" for transmitting the electricity from the generation point to the consumption point of the project proponents.

As per methodology and as explained in PDD, the project emissions and leakage are zero. Each meter reading report is for one HTSC (high tension service connection) which may have the net electricity supplied to the grid from one WTG or two WTGs or more as high as 20 WTGs too. The details of WTGs in each HTSC is given in Appendix 1.

7.1 Baseline emission factor

The emission factor of the southern regional grid as per combined margin approach as per registered PDD shall be used for estimation of emission reductions of the project activity for the crediting period for which issuance of CERs are requested.

The Baseline emission factor **(EF)** as per Combined Margin method, **0.831 ton CO_2 /MWh**, is adopted for calculation of emission reductions of the project activity.

8. Emission Reductions of the project activity

The emission reductions due to the project activity are the net electricity supplied by the project activity to the grid multiplied by the emission factor of the state grid.

Emission Reductions, ER_y = EG_y * EF

(tCO_2) (MWh) (tCO_2/MWh)

where ER_y is the emission reductions due to the project activity in ton CO_2 in the year y

EG_y is the net electricity supplied to the grid by the project activity in MWh in the year

EF is the emission factor of the grid in tCO_2/MWh.

The emission reductions of the project activity for the verification period is shown in the table 8-1 below:

Table 8-1 – Emission reductions of the project activity

S. No.	Period of Monitoring	Emission Reductions (*ton CO_2eq*)
1	01/01/2006 to 11/12/2006	**46,211**

Month wise detail of net electricity supplied to the grid and emission reduction for each HTSC and total emission reductions from the project activity for the requested period is attached in an Excel spread sheet .

Appendix 1 – Locational details of Wind Turbine

Tirunelveli district

Sl. No	Village	HTSC NO	S.F. No	No of M/c	Comm. Date
1	Pazhavoor	433	839/2B, 840/2, 929,931,958,959,960,962,964/2 (2Nos), 964/3,966/1, 968/(P), 974, 975/1(P), 978/2	17	31.03.2002
2			818/1C, 847/2(P)	2	18.04.2002
3			966/2	1	09.05.2002
4		432	784/1, 979/3(P)	2	31.03.2002
5			1006/3, 1005/3, 1011/1, 1011/1, 799/1, 1017/1, 780/1	7	19.04.2002
6			833/2&3(P)	1	27.08.2003
7			798/3(P)	1	09.05.2002
Total				**31**	
8	Thandayarkulam	741	192/1A1, 192/2A, 194 (2nos), 426/2C, 200/2 & 188/1A	7	28.03.2004
9		742	202/1B, 187/2,186/2A, 182/4A,	4	28.03.2004
10			204(P) & 184/2(P)	2	31.3.2004
11			203/1	1	28.09.2004
12		743	370/2& 375/1, 372/1	2	28.03.2004
13			380/1, 382, 379/5A&5B	3	31.03.2004
14			365 / 1A, 1B & 1D	1	30.09.2004
15		792	182/2,191/1(P)	2	31.03.2004
		793	280/1	1	31.03.2004
16			275/3 (3 nos) 282, 271/1	5	07.05.2004
17			2509/3(P)	1	26.08.2004
18		794	418/1A2 (2nos), 419, 4192A&2B, 423 /2B (P), 422/3A(P)	6	31.03.2004
19			279/10	1	24.01.2005
20	Levenjipuram & Karunkulam	322	1250/2 & 3, 1235/4C, 1223/1A, 1249/1B, 644/1C & 645/3	6	30.09.2004
21			1237/1B4, 1B5	1	02.03.2005
22		842	1107/8 & 9A, 1119/1G, 1234/4, 1121/1, 1233/2A and 1233/2D &1231/1	6	02.07.2004
23		865	1103/5B7, 1108/2A3, 1110/2C,	3	30.09.04
24		866	1083/3, 1075/1C, 1074/2B1	3	30.09.04
25		867	1079/3A, 3B	1	30.09.04
26		1098	1098/2c3	1	14.02.05
27			1093/3,4 & 1109/5B	1	02.03.05

28	Keelkulam & Kothankulam (Revenue village Irukanthurai)	907	1170/2A3	1	16.09.04
29			1171/1A2, 1171/2A, 1177/2C, 1178/2A(P)	4	28.09.04
30			1174/1F, 1183/1C & 1E	2	18.11.04
31		908	1166/1B5	1	16.09.04
32			1167/2D, 1167/3A &3B, 1160/7, 1161/2	4	28.09.04
33			1165/1C (P)	1	23.12.04
34		909	1157/2J	1	16.09.04
35			1155/1B & 1C and 1153/1C&1D,	2	28.09.04
36		1018	1130/1 (p)	1	30.09.04
37			1119/1 (2Nos)	2	28.10.04
38			1117/2B	1	18.11.04
39			1130/2(P), 1116/2A(P)	2	23.12.04
40		1042	1138 (P)	1	05.11.04
41			1132/4, 1128/3	2	18.11.04
42			1131(P), 1132/1, 1132/8	3	23.12.04
43		1043	1137/1A(P)	2	05.11.04
Total				**88**	

Coimbatore district

Sl. No	Village	HTSC No	SF. No	No of M/c	Comm. Date
1	Kottamangalam	745	145/3, 144/1, 66/A1, 63/2 (Village : Gudimangalam & Kottamangalam)	5	30.03.2005
2			64/3E	1	31.03.2005
3			63/1c	1	27.06.2005
4		746	63/2	1	31.03.2005
5			51/3B, 53/1	2	31.03.2005
6			9/1	1	27.06.2005
7		747	72/2, 49/5	3	31.03.2005
8			73/1B, 76/1A	2	27.06.2005
9			73/1B	1	31.03.2005
10		748	74/1D, 1E and 77/1A	2	31.03.2005
11			81/1H,11	1	27.06.2005
12		916	198/3B2, 199/3	2	09.09.2005
13		948	164/2, 154/3	3	22.09.2005
14			189/B1A	1	29.09.2005
15		949	183/ 2C & 2D 159/1A	3	22.09.2005
16			158/2B	1	30.09.2005
17		985	47/B2, 47/A1& B3C, 154/7, 152/1B&1C, 189/B2C & B4C	5	29.09.2005
18			163/3A3	1	30.09.2005
19		1018	191/3C2B	1	30.09.2005
20		1019	25/3E2, 27/3A, 29/A2b	4	30.09.2005
21	Thungavi	1021	7/1, 12/2C, 1/1, 8/2	4	30.09.2005
Total				**50**	

WTGs Commissioned in 2006 during the monitoring period (Coimbatore district)				
Sl. No	**HTSC No**	**SF. No &Village**	**No of M/c**	**Comm. Date**
1	U.1243	34/3B , Thanthoni	1	30.09.2006
2	U.1084	39/5,9, Thanthoni	1	29.09.2006
3	U.1327	138/B1, Ponneri	1	30.09.2006
4	U.1326	18/3, Ponneri	1	30.09.2006
5	1084	48/B1B,49/1, Thanthoni	2	31.03.2006
6	1240	138/B1, Ponneri	1	31.03.2006
7	1241	141/A1, Ponneri	1	31.03.2006
8	1242	182/1, Thanthoni	2	31.03.2006
9	1243	182/4,35/5,183/2D,94/3A, Thanthoni	5	31.03.2006
10	1085	192, Thanthoni	1	07.02.2006
11	1083	22/2A1,22/2A2,21/3D, Ponneri	2	07.02.2006
12	1084	41/1C	1	07.02.2006
Total			**19**	