

MONITORING REPORT - II

(April 01st 2006 – March 31st 2007)

125 MW Wind Power Project in Karnataka, India (UNFCCC Reference No: 0315)

Promoted by

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A. Project Reference

Title : 125 MW Wind Power Project in Karnataka, India

UNFCCC Reference No: 0315

Registration Date : 29 September, 2006

Date of Monitoring Report : July 11, 2007

B. Location

The project sites are located at Sogi, Jogimatti and Jajikalgudda respectively in the districts of Bellary, Chitradurga and Davangere in the Indian state of Karnataka. Bellary, Chitradurga and Davangere are approximately at 300, 200 and 317 kms from Bangalore, the capital city of Karnataka. The sites of Sogi, Jogimatti and Jajikalgudda are located at a latitude and longitude of around 14°10' N – 14°55' N and 75°59' E and 76°22' E respectively. Sogi, Jogimatti and Jajikalgudda are at 850, 1120 and 750 meters respectively from the mean sea level.

C. Brief Description

The project activity generates 125 MW equivalent of clean electricity with efficient utilization of the available wind energy through adoption of an efficient and modern technology. The project activity displaces energy (largely from fossil fuel based sources) and also delays any planned expansion of the grid generation capacity by its equivalent size, which contributes to sustainable development and conservation of environment through use of wind, a renewable resource. Green power of approximately 299 Million Units (MU) per annum is being fed to the BESCOM grid, which forms part of the southern regional grid (India). The 125 MW Wind Power Project comprises of 83 No.'s, 17 No.'s & 7 No.'s of Wind Energy Generators (WEG's) each of capacities 1250 KW, 950 KW & 750 KW respectively. The project activity has been planned and executed in two phases, with capacities of 27.65 MW and 97.50 MW in Phase 1 & Phase 2 respectively.

Phase	Company	Numbers	Capacity (KW)	Installed Capacity (KW)	Make
I	MSPL	7	750	5,250	NEG Micron
		17	950	16,150	NEG Micron
		5	1250	6,250	Suzlon
II	MSPL	41	1250	51,250	Suzlon
	RMMPL	31	1250	38,750	Suzlon
	PVS	6	1250	7,500	Suzlon
			Total	125,150	

D. Period of Verification

The project proponent wishes to get Emission Reductions certified for the period April 01st 2006 to March 31st 2007.

E. Monitoring Plan

This project activity uses air as source for power generation; no other fossil/non fossil fuels are involved and no fuel preparation or combustion takes place. Therefore, the net electricity generated by the project activity is the only parameter that needs to be monitored. The energy meter readings, proforma invoices raised by MSPL towards power sale will testify the actual number of units exported to the grid and hence the Emission Reductions.

F. Baseline Emission Factor

The baseline emissions and the emission reductions from MSPL project activity are estimated based on the quantum of electricity to be exported by the MSPL project activity and the **Baseline Emission Factor (BEF)** of the chosen Southern Regional grid (India). The baseline emission factor (combined margin) has been calculated as per the guidance provided in ACM0002 (Version 02). The Baseline Emission Factor 907.1 tCO₂/MU has been validated and is available in the registered CDM PDD.

G. Emission Reductions

Baseline emissions (BE_y in tCO₂) due to displacement of grid-electricity are the product of the Baseline Emissions Factor (EF_y in tCO₂/MWh), times the electricity supplied by the MSPL project activity to the grid (EG_y in MWh), over the crediting period as given below.

$$BE_y = EG_y \cdot EF_y$$

The emission reductions ER_y by the project activity during a given year y is the difference between baseline emissions (BE_y), project emissions (PE_y), and emissions due to leakage (L_y), as follows:

$$ER_y = BE_y - PE_y - L_y$$

Where,

ER_y	Emission reductions of the project activity during the year y in tons of CO ₂ ,
BE_y	Baseline emissions due to displacement of electricity during the year y in tons of CO ₂ ,
PE_y	Project emissions during the year y in tons of CO ₂ .
L_y	Leakage emission during the year y in tons of CO ₂ .

As there are no project emissions and leakage in this case, Baseline emissions are equivalent to the emission reductions which is of the order of 272,092 tCO₂ for the verification period April 01st 2006 – March 31st 2007 as shown below:

Year	Electricity supplied to the grid <i>EG_y (MWh)</i>	Baseline Emission Factor <i>EF_y (tCO₂/MWh)</i>	Emission Reductions <i>(tCO₂e)</i>
April 01 st 2006 – March 31 st 2007	299,957.706	0.9071	272,092
TOTAL			272,092

ANNEXURES

Annex I

Abbreviations

ACM	Approved Consolidated Methodology
BEF	Baseline emission factor
BM	Build Margin
MSPL	Mines Sales Private Limited
CO₂	Carbon dioxide
CER	Certified Emission Reductions
RMMPL	Ramgad Minerals and Mining Private Limited
CDM	Clean development mechanism
CM	Combined Margin
PVS	P. Venganna Setty and Brothers
BESCOM	Bangalore Electricity Supply Company
KPTCL	Karnataka Power Transmission Corporation Limited
KW	Kilowatt
MW	Mega watt
MWh	Megawatt hour
MU	Million Units
OM	Operating Margin
PDD	Project design document
tCO₂e	Tonnes of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention on Climate Change
WEG's	Wind Electric Generators

ANNEX II

Generation Data for Sogi & Jajikalgudda for the Period: April06 - March07

Sl. No	Electricity Board Meter ID	Location	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	TOTAL
1	RR NO. MRB-03-K-131/131 (Loc. No: K121 To K131= 11*1250Kw)	Sogi	1268178	2826293	3736008	5946881	5013806	2642147	1991618	1872196	2798615	1913698	1282556	857642	32149638
2	RR NO. MRB-03-K-140/140 (Loc. No: K132 To K140= 09*1250Kw)	Sogi	1298590	2811713	3828483	6155243	5324392	2869279	2168588	2049739	2998010	1997982	1337842	915945	33755806
3	RR NO MRB-03-141/141 (Loc. No: K141 To K146= 06*1250Kw)	Sogi	826887	1773555	2394294	4013082	3414973	1745071	1186984	1116472	161754	1120245	711062	542226	19006605
4	RR NO MRB-03-147/147 (Loc. No: K147 To K150 & K153 To K156= 08*1250Kw)	Sogi	1090285	2303951	3039527	4861443	4201856	2215152	1564238	1313585	2098696	1407216	975177	750107	25821233
5	RR NO MRB-03-K-161/161 (Loc. No: K161 To K166= 06*1250Kw)	Jajikalgudda	603041	1399529	2002416	3496696	2929453	1319744	799395	706567	1093272	722134	557467	399535	16029249
6	RR NO JJK-06/K-173 (Loc. No: K167 To K180= 14*1250Kw)	Jajikalgudda	1569255	3505333	4659011	7572246	6511797	3167966	2099056	1884176	3056687	2248636	1509399	1046241	38829803
7	RR NO JJK-07 / K-181 (Loc. No: K181 To K183= 03*1250Kw)	Jajikalgudda	431679	1005677	1296921	2006373	1917992	948663	656901	544489	917154	640380	435659	315552	11117440

8	RR NO JJK-08 / 187 (Loc. No: K184 To K187= 04*1250Kw)	Jajikalgudda	502508	1107619	1391829	2277699	2087484	994184	765768	720696	1238854	880264	598050	389885	12954840
9	RR NO JJK-05/200 (Loc. No: K188 To K200= 13*1250Kw)	Jajikalgudda	1107966	2982517	4248689	7263881	6465726	2827513	2120341	2044482	3330995	2387338	1520464	931814	37231726
TOTAL			8698389	19716187	26597178	43593544	37867479	18729719	13352889	12252402	17694037	13317893	8927676	6148947	226896340

Generation Data for Jogimatti, GR Halli for the Period: April06 - March07

Sl. No	Electricity Board Meter ID	Location	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	TOTAL
10	RR NO JMT-05 / 028 (Loc. No: K28 = 01*1250Kw)	Jogimatti	199280	380023	449625	631763	246863	113478	241831	132227	260957	168492	170446	113302	3108287
11	RR NO JMT-03 / 33 (Loc. No: K33 To K35 = 03*1250Kw)	Jogimatti	281015	837828	1222223	2098998	1845693	912461	564256	314016	540035	405538	319697	198062	9539822
12	RR NO. GRHP-01 (MSPL Ph3, Loc. No: MSPL7 To MSPL 10 = 04*950Kw)	GR Halli	314915	731442	1078940	1748508	1546166	784483	591560	449578	673167	442037	337467	200464	8898727
13	RR NO. GRHP-08 (MSPL Ph 4, Loc. No: MSPL11, MSPL12A,MS PL12B, MSPL14 To MSPL16 = 04*950Kw + 02*750Kw)	GR Halli	499254	965728	1271514	2004127	1810812	972682	680739	426267	751896	526893	410064	304791	10624767

14	RR NO. GRHP-09 (MSPL Ph-5, Loc. No: MSPL17 To MSPL21 = 05*750Kw)	GR Halli	317233	710390	994208	1633531	1428720	722999	460112	317750	526935	359396	282870	204943	7959087
15	RR NO. GRHP-05, (MSPL Ph - 6, Loc. No: MSPL22 To MSPL25 = 04*950Kw)	GR Halli	187056	570884	847331	1471833	1228641	567819	374608	305213	535588	382120	283842	152183	6907118
16	RR NO. GRHP-06 (MSPL Ph-07, Loc. No: MSPL-26 To MSPL-28 = 03*950Kw)	GR Halli	155851	411525	611122	1088343	902771	438699	335952	271163	424485	317750	230300	153860	5341821
17	RR NO. GRHP-14 (MSPL Ph-08, Loc. No: MSPL-29 & MSPL-30 = 02*950Kw)	GR Halli	183107	401280	524381	864708	781077	407637	298762	225516	402122	268946	216297	133568	4707401
18	RR NO JMT- 01 (Loc. No: K23 To K27 = 05*1250Kw)	Jogimatti	746315	1562512	1984036	3010853	2967703	1467849	1029736	540665	1006690	652247	595524	410206	15974336
TOTAL			2884026	6571612	8983380	14552664	12758446	6388107	4577556	2982395	5121875	3523419	2846507	1871379	73061366

TOTAL GENERATION INCLUDING SOGI, JJK, GR HALLI AND JOGIMATTI	11582415	26287799	35580558	58146208	50625925	25117826	17930445	15234797	22815912	16841312	11774183	8020326	299957706
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