

MONITORING REPORT
(April 2004 – March 2006)

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

Promoted by

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A. Introduction

M/s. MSPL Limited (project proponent) has registered their large scale Clean Development Mechanism project namely “125 MW Wind Power Project in Karnataka, India” with the Executive Board of United Nations Framework Convention on Climate Change. As the next step, the project proponent has taken on the process of verification, for which this monitoring report is submitted. The project proponent had opted to go for a fixed crediting period of ten years. This monitoring report is prepared for the purpose of verification of emission reductions generated by the project activity. This report contains monitoring data starting April 2004 till March 2006 and the project proponent requests issuance of Certified Emission Reductions for the same.

B. Project Reference

Title	: 125 MW Wind Power Project in Karnataka, India
UNFCCC Reference No	: 0315
Registration Date	: 29 September 2006
Date of Monitoring Report	: October 26, 2006

C. 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.

D. 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 303.3 Million Units (MU) per annum is being fed to the BESCOM grid, which forms part of the southern regional grid (India).

The Project activity by MSPL Limited, RMMPL and PVS & Brothers is promoted by the Baldota Group. As per the agreement between MSPL Limited, RMMPL and PVS & Brothers, MSPL Limited would have the ownership rights for the project activity and would be the sole transaction entity with the Executive Board of the United Nations Framework Convention for Climate Change.

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	

E. Period of Verification

The project proponent wishes to get Emission Reductions certified for the period April 2004 to March 2006.

F. 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, invoices raised by MSPL towards power sale will testify the actual number of units exported to the grid and hence the Emission Reductions.

G. 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 in the PDD. Detailed procedure of calculating BEF is presented in Annex 2.

H. 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 287,299 tCO₂ for the verification period April 2004 – March 2006 as shown below:

S.No.	Year	Electricity supplied to the grid EG_y (MWh)	Baseline Emission Factor EF_y (tCO ₂ /MWh)	Emission Reductions (tCO ₂ e)
1	April 2004 – March 2005	50,387.320	0.9071	45,706
2	April 2005 – March 2006	266,335.713	0.9071	241,593
TOTAL				287,299

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

Baseline Emission Factor Calculation

Method of arriving at Baseline Emissions Factor is explained as follows:

The **Combined Margin (CM)** consisting of the combination of **operating margin (OM)** and **build margin (BM)** factors is calculated according to the three steps given below:

Step 1 – Calculation of the Operating Margin CO₂ emission factor ($EF_{OM,y}$)

The Operating Margin emission factor(s) ($EF_{OM,y}$) is calculated based on one of the four following methods:

- (a) Simple OM, or
- (b) Simple adjusted OM, or
- (c) Dispatch Data Analysis OM, or
- (d) Average OM.

The baseline adopted for the project activity, which is the Southern Regional Grid was found to be dominated by fossil fuel based power plants. The low operating cost and must run resources which typically include hydro, geothermal, wind, low-cost biomass, nuclear and solar generation constituted 23.63 %, which is less than 50% of the total grid generation and the data in the Table 1 of Annex II would illustrate the same.

As per the methodology, 'Dispatch Data Analysis' (1c) is the first methodological choice. However, this method is not selected for OM emission factor calculations, as the share of low cost / must run resources of the selected grid over the past five years (2000-01 to 2004-05) has been found to be 23.63%, which is less than 50% of the gross grid generation. This meets the condition as stipulated by the selected methodology, for using the simple OM method for calculating the operating margin emission factor as against the dispatch analysis method.

'Simple OM' (1a) method is applicable to project activity connected to the project electricity system (grid) where the low-cost/must run resources constitute less than 50% of the total grid generation in 1) average of the five most recent years, or 2) based on long-term normal for wind power production.

The Average OM (1d) methods is applicable to project activities connected to the project electricity system (grid) where the low-cost/must run resources constitute more than 50% of the total grid generation. To select the appropriate methodology for determining the Operating Margin emission factor ($EF_{OM,y}$) for the MSPL project activity, MSPL conducted a

baseline study, wherein the power generation data for all power sources in the project electricity system were collected from government/non-government organisations and from authentic sources and then analysed.

Amongst the 'Simple OM' (1a), 'Simple adjusted OM' (1b) and 'Average OM' (1d) methods to calculate the Baseline Emission Factor of the chosen grid, MSPL has therefore chosen and adopted the 'Simple OM' (1a) method.

The Simple OM emission factor ($EF_{OM,simple,y}$) is calculated as the generation-weighted average emissions per electricity unit (tCO₂/MU) of all generating sources serving the project electricity system, not including low-operating cost and must-run power plants. The generation data for various power generating stations constituting the Southern Regional grid, that have been used in calculating the baseline emissions for the most recent three years (at the time of PDD submission and validation) namely 2002, 2003 and 2004 (are presented later in this section

Table 1: Power Generation mix of Southern Region for the past five years

Power generation Mix of Southern Region for five years					
Energy Source	2000-01	2001-02	2002-03	2003-04	2004-05
Total Power Generation (MU)	130371.1	133480.4	137321.71	142812.00	150372.74
Total Thermal Power Generation	83291.59	84031.63	92053.19	95898.00	97448.01
Total Low Cost Power Generation	37098.75	34984.16	26959.92	26740.00	37766.21
Thermal % of Total grid generation	63.89	62.95	67.03	67.15	64.80
Low Cost % of Total grid generation	28.46	26.21	19.63	18.72	25.12
% of Low Cost generation out of Total grid generation - Average of the five most recent years					23.63

The Simple OM emission factor can be calculated using either of the two data vintages for years(s) y:

- A 3-year average, based on the most recent statistics available at the time of PDD submission, or the year in which project generation occurs, if $EF_{OM,y}$ is updated based on ex post monitoring.

MSPL has calculated the OM emission factor as per the 3-year average of Simple OM calculated based on the most recent statistics available at the time of PDD submission. The following Table 2 presents the key information and data used to determine the Simple OM emission factor:

Table 2: Key Information used for calculating simple Operating Margin emission factor
Calculation of Baseline Emission factor for Southern Region

	2001-02		2002-03		2003-04	
Sector	MU	%	MU	%	MU	%
Thermal Based	84031.63	62.95	92053.19	67.03	95898	67.15
Gas Based	10329.45	7.74	13950.1	10.16	16949	11.87
Diesel Based	4135.12	3.10	4358.5	3.17	3225	2.26
Hydro-State	26260.42	19.67	18286.79	13.32	16630	11.64
Nuclear Based	5243.83	3.93	4390	3.20	4700	3.29
IPP-Co-Generation+BIOMASS	2023.82	1.52	2676.32	1.95	1910	1.34
IPP-Wind	1456.09	1.09	1606.81	1.17	3500	2.45
Total	133480.4	100.00	137321.7	100.00	142812.0	100.00
Total generation excluding Low-cost power generation	98496.20	73.79	110361.79	80.37	116072.00	81.28
Generation by Coal and Lignite out of Total Generation excluding Low-cost power generation	84031.63	62.95	92053.19	67.03	95898.00	67.15
Generation by Gas out of Total Generation excluding Low-cost power generation	10329.45	7.74	13950.10	10.16	16949.00	11.87
Generation by Diesel out of Total Generation excluding Low-cost power generation	4135.12	3.10	4358.50	3.17	3225.00	2.26
Estimation of Baseline Emission Factor (tCO₂/MU)						
Simple Operating Margin						
Fuel 1 : Coal (Steam Stations)						
Avg. Calorific Value of Coal used (kcal/kg)		4845.0		4171.0		3820.0
Coal consumption (tons/yr)		53107000		65997000		52985000
Emission Factor for Coal-IPCC standard value (tonne CO ₂ /TJ)		96.1		96.1		96.1
Oxidation Factor of Coal-IPCC standard value		0.98		0.98		0.98
COEF of Coal (tonneCO ₂ /ton of coal)		1.91		1.64		1.51
Emissions per year (tCO ₂)		101460728.10		108546745.94		79812097.76
Fuel 2 : Furnace Oil (Steam Stations)						

Avg. Calorific Value of fuel used (kCal/kg)		10497		10726		10365
Fuel consumption (tons/yr)		115103.7		103163.46		50275.21
Emission Factor for Fuel- IPCC standard value(tonne CO2/TJ)		73.33		73.33		73.33
Oxidation Factor of Fuel-IPCC standard value		0.99		0.99		0.99
COEF of Gas(tonneCO2/ton of Oil)		3.19		3.26		3.15
Emissions per year (tCO2)		367270.60		336353.06		158399.89
Fuel 3 : Diesel Oil (Steam Stations)						
Avg. Calorific Value of fuel used (kCal/kg)		10293		9760		10186
Fuel consumption (tons/yr)		5821.65		7145.95		28076.35
Emission Factor for Fuel- IPCC standard value(tonne CO2/TJ)		74.07		74.07		74.07
Oxidation Factor of Fuel-IPCC standard value		0.99		0.99		0.99
COEF of Fuel(tonneCO2/ton of fuel)		3.16		3.00		3.13
Emissions per year (tCO2)		18397.05		21412.63		87802.02
Fuel 4 : LSHS (Steam Stations)						
Avg. Calorific Value of fuel used (kCal/kg)		10457		10524		10302
Fuel consumption (tons/yr)		7321.6		5361.84		4672.8
Emission Factor for Fuel- IPCC standard value(tonne CO2/TJ)		73.33		73.33		73.33
Oxidation Factor of Fuel-IPCC standard value		0.99		0.99		0.99
COEF of Fuel(tonneCO2/ton of gas)		3.18		3.20		3.13
Emissions per year (tCO2)		23272.59		17152.46		14632.90
Fuel 5 : Gas (Steam Stations)						
Avg. Calorific Value of Gas used (kCal/M3)		NA		NA		2000
Gas consumption (M3/yr)		0.00		0		1932274000.00
Emission Factor for Gas- IPCC standard value(tonne CO2/TJ)		56.10		56.10		56.10
Oxidation Factor of Gas-IPCC standard value		0.995		0.995		0.995
COEF of Gas(kgCO2/M3 of gas)		NA		NA		0.47
Emissions per year (tCO2)		0.00		0.00		903206.01
Fuel 6 : Naphtha (Gas Stations)						
Avg. Calorific Value of Fuel used (TJ/kt)		45.01		45.01		45.01
Fuel consumption (tons/yr)		149197.41		322854.84		478596.51
Emission Factor for Fuel- IPCC standard value(tonne CO2/TJ)		73.33		73.33		73.33
Oxidation Factor of Fuel-IPCC standard value		0.995		0.995		0.995

COEF of Fuel(tonneCO2/ton of Fuel)		3.284		3.284		3.284
Emissions per year (tCO2)		489997.65		1060327.52		1571818.00
Fuel 7 : HSD (Gas Stations)						
Avg. Calorific Value of Fuel used (kCal/kg)		10293		9760		10186
Fuel consumption (tons/yr)		4614.65		233853.7		192933.85
Emission Factor for Fuel- IPCC standard value(tonne CO2/TJ)		74.07		74.07		74.07
Oxidation Factor of Fuel-IPCC standard value		0.99		0.99		0.99
COEF of fuel(tonneCO2/ton of Fuel)		3.160		2.996		3.127
Emissions per year (tCO2)		14582.80		700735.68		603354.10
Fuel 8 : Natural Gas (Gas Stations)						
Avg. Calorific Value of Gas used (TJ/Million M3)		37.98		37.98		37.98
Estimated Gas consumption (Million M3/yr)		3230		3130		2010
Emission Factor for Gas- IPCC standard value(tonne CO2/TJ)		56.10		56.10		56.10
Oxidation Factor of Gas-IPCC standard value		0.995		0.995		0.995
COEF of Gas(tonneCO2/Million M3 of gas)		2120.024		2120.024		2120.024
Emissions per year (tCO2)		6847678.25		6635675.82		4261248.69
Fuel 9 : Diesel (Diesel Stations)						
Avg. Calorific Value of Fuel used (kCal/kg)		10293		9760		10186
Diesel consumption (tons/yr)		648561.05		736047.3		12667.55
Emission Factor for Diesel-IPCC standard value (tonne CO2/TJ)		74.07		74.07		74.07
Oxidation Factor of Diesel-IPCC standard value		0.99		0.99		0.99
COEF of Diesel (tonneCO2/ton of diesel)		3.16		3.00		3.13
Emissions per year (tCO2)		2049523.97		2205543.90		39614.71
Fuel 10 : LSHS (Diesel Stations)						
Avg. Calorific Value of Fuel used (kCal/kg)		10457		10524		10302
Fuel consumption (tons/yr)		0		0		569756.88
Emission Factor for Fuel-IPCC standard value (tonne CO2/TJ)		73.33		73.33		73.33
Oxidation Factor of Fuel-IPCC standard value		0.99		0.99		0.99
COEF of Fuel (tonneCO2/ton of Fuel)		3.18		3.20		3.13
Emissions per year (tCO2)		0.00		0.00		1784197.02
Fuel 11 : Lignite						
Avg. Efficiency of power generation with lignite as a fuel, %		30		30		30
Avg. Calorific Value of Lignite used (kCal/kg)		2625		2686		2737

Estimated lignite consumption (tons/yr)		17318250		17738000		20755000
Emission Factor for Lignite-IPCC standard value (tonne CO ₂ /TJ)		101.18		101.18		101.18
Oxidation Factor of Lignite-IPCC standard value		0.98		0.98		0.98
COEF of Lignite (tonneCO ₂ /ton of lignite)		1.09		1.12		1.14
Emissions per year (tCO ₂)		18873997.43		19780680.95		23584578.25
EF (OM Simple, excluding imports from other grids), tCO ₂ /MU		1321.32		1262.25		971.99
EF (OM Simple), tCO₂/MU		1321.32		1262.25		971.99
Average EF (OM Simple), tCO₂/MU						1185.19

Step 2 - Calculate the Build Margin emission factor ($EF_{BM,y}$)

The Build Margin emission factor ($EF_{BM,y}$) is calculated as the generation-weighted average emission factor (tCO₂/MU) of a sample of power plants. The methodology suggests the project proponent to choose one of the two options available to calculate the Build Margin emission factor $EF_{BM,y}$

Option 1:

Calculate the Build Margin emission factor $EF_{BM,y}$ ex ante based on the most recent information available on plants already built for sample group m at the time of PDD submission. The sample group m consists of either:

The five power plants that have been built most recently, or

The power plants capacity additions in the electricity system that comprise 20% of the system generation (in MU) and that have been built most recently.

Project participants should use from these two options that sample group that comprises the larger annual generation.

Option 2:

For the first crediting period, the Build Margin emission factor $EF_{BM,y}$ must be updated annually ex post for the year in which actual project generation and associated emissions reductions occur. For subsequent crediting periods, $EF_{BM,y}$ should be calculated ex-ante, as described in Option 1 above. The sample group m consists of either

the five power plants that have been built most recently, or

the power plants capacity additions in the electricity system that comprise 20% of the system generation (in MU) and that have been built most recently.

Project participants should use from these two options the sample group that comprises the larger annual generation.

MSPL has adopted the Option 1, which requires the project participant to calculate the Build Margin emission factor $EF_{BM,y}$ ex ante based on the most recent information available on plants already built for sample group m at the time of PDD submission. The sample group m should consist of either:

- (a) The five power plants that have been built most recently, or
- (b) The power plants capacity additions in the electricity system that comprise 20% of the system generation (in MU) and that have been built most recently.

Project participants are required to use from these two options the sample group that comprises the larger annual generation. As per the baseline information data the option (b) comprises the larger annual generation. Therefore for the MSPL project activity the sample group m consists of (b) the power plants capacity additions in the electricity system that comprise 20% of the system generation (in MU) and that have been built most recently. Power plant capacity additions registered as CDM project activities are excluded from the sample group.

The following Table 3 presents the key information and data used to determine the Simple BM emission factor:

Table 3: Key information used for calculating Build Margin emission factor

Considering 20% of Gross Generation					MU	%
Sector						
Thermal Coal Based-State					1554.00	5.15
Thermal Coal Based-Central					7296.00	24.20
IPP-Coal Based					0	0.00
Lignite based power plant					4668	15.48
IPP-Gas (Naphtha) Based					8520	28.26
IPP-Diesel Based					422.32	1.40
Hydro-State					2200.70	7.30
Nuclear Based-Central					0.00	0.00
IPP-Co-Generation + biomass					3493.40	11.59
IPP-Wind					2000	6.63
Total					30154	100.00
Generation by Coal out of Total Generation					8850.00	29.35
Generation by Gas out of Total Generation					8520.06	28.26

Generation by Diesel out of Total Generation					422.32	1.40
Generation by lignite out of Total Generation					4668	15.48
Built Margin						
Fuel 1 : Coal						
Avg. efficiency of power generation with coal as a fuel, %						32.5
Avg. calorific value of coal used, kcal/kg						4069.4
Estimated coal consumption, tons/yr						5752500.0
Emission factor for Coal (IPCC),tonne CO2/TJ						96.1
Oxidation factor of coal (IPCC standard value)						0.98
COEF of coal (tonneCO2/ton of coal)						1.605
Fuel 2 : Gas						
Avg. Efficiency of power generation with gas as a fuel, %						45
Avg. Calorific Value of Gas used (TJ/Million M3)						37.98
Estimated Gas consumption (Million M3/yr)						1794.64
Emission Factor for Gas- IPCC standard value(tonne CO2/TJ)						56.10
Oxidation Factor of Gas- IPCC standard value						0.995
COEF of Gas(tonneCO2/Million M3 of gas)						2120.024
Fuel 3 : Diesel						
Avg. efficiency of power generation with diesel as a fuel, %						41.7
Avg. calorific value of diesel used, kcal/kg						10348
Estimated diesel consumption, tons/yr						84168.1
Emission factor for Diesel (as per standard IPCC value)						74.07
Oxidation factor of Diesel (IPCC standard value)						0.99
COEF of diesel tonneCO2/ton of diesel						3.18
Fuel 4 : Lignite						
Avg. efficiency of power generation with lignite as a fuel, %						29
Avg. calorific value of lignite used, kcal/kg						2683
Estimated lignite						5085715

consumption, tons/yr						
Emission factor for lignite (as per standard IPCC value)						101.18
Oxidation factor of lignite (IPCC standard value)						0.98
COEF of lignite tonneCO2/ton of lignite						1.11
EF (BM , excluding imports) (tCO2/MU)						629.01
EF (BM), tCO2/MU						629.0
Combined Margin Factor (Avg of OM & BM)						907.1
Baseline Emissions Factor (tCO2/MU)						907.1

Step 3 - Calculate the Electricity Baseline Emission Factor ($EF_{electricity, y}$)

The baseline emission factor $EF_{electricity, y}$ is calculated as the weighted average of the Operating Margin emission factor ($EF_{OM,y}$) and the Build Margin emission factor ($EF_{BM,y}$), where the weights w_{OM} and w_{BM} , by default, are 50% (i.e., $w_{OM} = w_{BM} = 0.5$), and $EF_{OM,y}$ and $EF_{BM,y}$ are calculated as described in Steps 1 and 2 above and are expressed in tCO₂/MU.

The most recent 3-years average of the Simple OM and the BM of the base year are considered and the same is presented in the table below.

Table B-4: Data used for Baseline Emission Factor		
Parameters	Values (ton of CO ₂ /MU)	Remarks
Simple OM, $EF_{OM,simple}$	1185.19	Average of most recent 3-years values
BM, $EF_{BM,y}$ (ton of CO ₂ /MU)	629.0	Value of the base year i.e. 2004-2005
Southern Regional Baseline Emission Factor, EF_y	907.1	

Annex III

NET UNITS GENERATION FOR THE YEAR APRIL 2004 - MARCH 2005

GR HALLI: NEG MACHINES

PH. Nos. / Month	April 04	May 04	June 04	July 04	Aug 04	Sept 04	Oct 04	Nov 04	Dec 04	Jan 05	Feb 05	March 05	TOTAL
MSPL Phase III (4X950,MSPL 7,8,9,10 (GR 7,8,9,10))	209558.37	796640.21	1158050.11	1134241.5	1425719.52	505280.76	549000	626948.59	443426.63	296699.44	374550	239550	7759665.13
MSPL Phase IV (4X950 ,2X750,MSPL 11,12A,12B,14,15, 16(GRH 21,22,23,24,18,25)	18342.75	117181.6	232350.46	949246.42	1057705.67	671158.57	564165	625898.67	526219.54	332391.18	443880	383197.5	5921737.36
MSPL Phase V (5X750,MSPL 17,18,19,20,21 (GON 1,2,MAL 1,2,4)	38325.84	586215.19	986194.5	1048904.27	1208484.08	469190.04	469732.5	481651.73	367964.59	263420.06	347265	257422.5	6524770.3
MSPL Phase VI (4X950,MSPL 22,23,24,25 (GR 12,13,14,15,))	128500.56	498857.32	866811	599521.72	1015777.18	349625.69	333720	461962.12	343614.95	267311.76	335085	213540	5414327.3
MSPL Phase VII (3X950,MSPL 26,27,28 (GR 18,19,20))	20070.52	386073.54	605718.37	643713.36	743565.86	253439.51	219206.25	350712.47	316611.13	209215.96	263272.50	170021.25	4181620.72

MSPL Phase VIII (2X950,MSPL 29,30 (GRH19,20))	0	78549.45	436288.16	488633.52	545774.58	285717.02	262878	326799.17	265876.41	186727.58	240078	193158	3310479.89
TOTAL	414798.04	2463517.3	4285412.6	4864260.79	5997026.89	2534411.59	2398701.8	2873972.75	2263713.25	1555765.98	2004130.5	1456889.25	33112601

JOGIMATTI: SUZLON MACHINES

PH. Nos. / Month	April 04	May 04	June 04	July 04	Aug 04	Sept 04	Oct 04	Nov 04	Dec 04	Jan 05	Feb 05	March 05	TOTAL
SUZLON, MSPL (5X1250),(K- 23,24,25,26,27)	640421.82	1631250	2811532	2840400	3262500	1270320	1083527	953179.83	965010.87	476550	672517.5	667510	17274719

NET UNITS GENERATED FOR THE YEAR 04-05: 50387320 UNITS

NET UNITS GENERATION FOR THE YEAR APRIL 2005 - MARCH 2006

SUZLON MACHINES - SOGI

PH. Nos. / Month	April 05	May 05	June 05	July 05	Aug 05	Sept 05	Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	March 06	TOTAL
MSPL Ph - IV (121,122,123,124,125,126,127,128,129,130,131)	336700	1440086	3078669	3640753	3593832	3126938	1021462	1801592	1889104	2513353	1930263	1010814	25383565
MSPL Ph - V (132,133,134,135,136,137,138,139,140)	559745	1489148	3543716	4077171	3755259	3200796	995690	2131820	1765954	2432258	2000246	1059490	27011293
RMMPL Ph - I (147,148,149,150,153,154,155,156)	291989	652492	1714498	3357834	3123659	2571317	817852	1570578	1245176	1647751	1362385	835215	19190744
PVS Ph - I (141,142,143,144,145,146)	322415	809267	2106191	2768509	2205390	1858805	443237	1265550	1036648	1414030	1115923	568938	15914902
TOTAL	1510849	4390993	10443074	13844266	12678140	10757856	3278241	6769540	5936882	8007392	6408815	3474457	87500504

SUZLON MACHINES -

JAJIKALGUDDA

MSPL Ph - VI (184,185,186,187)	18239	279041	1024815	1764664	1566554	1204226	326206	704184	681888	918348	850335	419519	9758019
MSPL Ph - VII (188,189,190,191,192,193,194,195,196,197,198,199,200)	332191	1323344	2655193	5646301	4817661	3773193	855852	2073208	2022982	2490962	2370232	1024632	29385749
RMMPL Ph - II (161,162,163,164,165,166)	196833	631750	1621704	2281523	2225037	1736722	362832	752232	593549	840197	879699	430880	12552958
RMMPL Ph - III (181,182,183)	50850	120221	618816	1307152	1259700	1029076	253732	552565	532704	688983	636865	344225	7394887

RMMPL Ph - IV (167,168,169,170,171,172,173,174,175,176,177,178,179,180)	71869	968907	3405390	5866215	4896655	4049007	964048	1971542	1847779	2413039	2281353	1136404	29872208
TOTAL	669982	3323263	9325918	16865854	14765607	11792223	2762670	6053731	5678902	7351528	7018484	3355659	88963820

SUZLON MACHINES- JOGIMATTI

PH. Nos. / Month	April 05	May 05	June 05	July 05	Aug 05	Sept 05	Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	March 06	TOTAL
MSPL Ph - I (K23,k24,k25,k26,k27)	486360	1398213	2391157	2749301.3	2500980	1769075	394466	759015	606611	740332	765305	408518	14969332.7
MSPL Ph - II (K-28)	141305	361314	538851	558973	519750	416922	118568	179109	146853	189499	216327	119424	3506894
MSPL Ph - III (k-33,k-34,k-35)	205463	584940	1438800	1737731.3	1465364	1143714	182083	451065	386751	498351	419206	178903	8692371
TOTAL	833127	2344466	4368808	5046005.3	4486093	3329711	695117	1389189	1140215	1428182	1400839	706844	27168597

NEG MACHINES

PH. Nos. / Month	April 05	May 05	June 05	July 05	Aug 05	Sept 05	Oct 05	Nov 05	Dec 05	Jan 06	Feb 06	March 06	TOTAL
MSPL Phase I (1X950),GR-11	71250	159413	348535	417648	349058	273551	63525	139388	126750	153361	135187	63093	2300758
MSPL Phase II (5X950,MSPL 2,3,4,5,6(GR 1,2,3,4,5))	422550	857550	1865935	2177737	1890419	1511614	392550	906000	855000	956940	880215	411385	13127895

MSPL Phase III (4X950,MSPL 7,8,9,10 (GR 7,8,9,10))	242550	600000	1307924	1576267	1273699	1016687	200550	513000	459000	559720	504251	207018	8460666
MSPL Phase IV (4X950 ,2X750,MSPL 11,12A,12B,14,15,16(GRH 21,22,23,24,18,25))	342495	868748	1529669	1765228	1497677	1210563	289328	562433	504765	623684	573575	317112	10085275
MSPL Phase V (5X750,MSPL 17,18,19,20,21 (GON 1,2,MAL 1,2,4))	228971	580590	1184363	1459714	1141361	886549	177221	352283	319208	420852	377104	191727	7319943
MSPL Phase VI (4X950,MSPL 22,23,24,25 (GR 12,13,14,15,))	177405	410820	1022517	1302990	1042762	724063	164160	304065	318765	443776	404525	157909	6473755
MSPL Phase VII (3X950,MSPL 26,27,28 (GR 18,19,20))	146261	308790	735679	607063	470822	553815	128329	269932	300015	370264	346879	133530	4371380
MSPL Phase VIII (2X950,MSPL 29,30 (GRH19,20))	147624	338892	620342	799117	669200	512063	132774	253452	239910	321558	301785	141632	4478349
RMMPL Ph - I (2X950,Ramagad 1,2 (GR6,17)	116663	270000	616063	737399	602850	483001	110250	280913	258750	324999	292904	118960	4212751
RMMPL Ph - II (1X750,Ramagad 3(GoN4))	64299	159666	295043	343974	277858	227767	53586	109182	91533	113792	71301	64020	1872021

Total	1960068	4554468	9526070	11187136	9215706	7399673	1712273	3690646	3473696	4288945.7 1	3887723.81	1806385.95	62702791
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NET UNIT GENERATED FOR THE YEAR 2005-06: 266335713 UNITS