

# **MONITORING REPORT**

***Project title:*** “Bundled Wind Energy Power Projects (2004 Policy) in Rajasthan”

UNFCCC Reference No: **1166**

Registration date: **30<sup>th</sup> October 2008**

***Version:*** Version 1.0

***Date:*** 13 December 2009

## ***Monitoring Period***

Start date: 30<sup>th</sup> October 2008

End date: 30<sup>th</sup> November 2009

## ***Monitoring Information***

The electricity supplied to the grid will be metered at the 33/132/220 KV level at the RRVPN substation at Amarsagar. Representatives of RRVPN/Jodhpur Discom and Enercon will jointly take the main reading and sign the meter reading on the first day of every month. Simultaneously, the joint meter reading at the 33/132/220 KV level of the backup metering at Temderai substation will also be taken by representatives of RRVPN/Jodhpur Discom and Enercon.

The meters will jointly inspected/tested once in a year as per the terms of the PPA. Joint inspection and testing will also be carried out as and when difference in monthly meter readings exceeds the sum of maximum error as per accuracy class of main and back up meters.

## **Metering Equipment & Metering Arrangement Information**

The meters used are Trivector and the manufacturer is the Secure Meter. The meters are two-way meter and measure the electricity import and export and give the net electricity.

As per the Power Purchase Agreement entered into with the electricity distribution utility, there will be two meters, one main meter and one check meter. Both meters would be two-way export import meters that measure both export and import of electricity and provide net electricity exported to the grid. Accordingly, we have proposed that the net electricity exported to grid would be the sole monitoring parameter for the project.

In case the meters are found to operate outside the permissible limits, the meters will be either replaced immediately or calibrated. Error correction will be applied to the meter reading. Whenever a main meter goes defective; the consumption recorded by the backup meter will be referred. The details of the malfunctioning along with date and time and snaps shot parameters along with load survey will be retrieved from the main meter. The

exact nature of the malfunctioning will be determined after analyzing the data so retrieved and the consumption recorded by the main meter will be assessed accordingly.

If main as well as back up metering system becomes defective, the assessment of energy consumption for the outage period will be done from the backup meters by the concerned parties as mutually agreed or at the level of Metering Committee set up under the Metering Code.

The main and the backup metering systems will be sealed in presence of representatives of Enercon and RRVPN/Jodhpur Discom.

### ***Calculation for Emission Reductions***

As per methodology ACM0002, the emission reduction

$$\mathbf{ER_y = EF_y * EG_y \text{ ----- (1)}}$$

Where  $EG_y$  is the electricity supplied to the grid,  $EF_y$  is the  $CO_2$  emission factor of the grid.

Baseline emission factor ( $EF_y$ ) has been calculated ex-ante and will not be updated during the crediting period of ten years. As per PDD registered,  $EF_y = 873.87 \text{ tCO}_2/\text{GWh}$  or  $0.87387 \text{ tCO}_2/\text{MWh}$

**Monthly generation & CER's generation details for the period 01/11/08 to 30/11/09**

Month	Project Proponents	Export kWh	Import kWh	Net Generation kWh
Nov-08	CEPCO	740352	3146	737206
	Delta Enterprises	153323	652	152671
	Ushdev International	151067	642	150425
	Brindavan Agro Industries	100087	425	99662
	Amrit Bottlers Ltd.	49108	209	48899
	Brindavan Bottlers Ltd.	50781	216	50565
	Deedee Enterprises	45119	192	44927
	JN Investment	48065	204	47861
	Malani Impex Inc.	50315	214	50101
	Metalfab Hightech Private Limited	46954	200	46754
	Sankalp International	51178	217	50961
	SE Investment	51356	218	51138
Dec-08	CEPCO	876441	2994	873447
	Delta Enterprises	181106	618	180488
	Ushdev International	175235	598	174637
	Brindavan Agro Industries	118356	404	117952
	Amrit Bottlers Ltd.	54207	185	54022
	Brindavan Bottlers Ltd.	58839	201	58638
	Deedee Enterprises	57424	196	57228
	JN Investment	59060	202	58858
	Malani Impex Inc.	56933	194	56739

	Metalfab Hightech Private Limited	58201	199	58002
	Sankalp International	58313	199	58114
	SE Investment	58511	200	58311
Jan-09	CEPCO	1082350	1773	1080577
	Delta Enterprises	219584	360	219224
	Ushdev International	218530	358	218172
	Brindavan Agro Industries	149478	245	149233
	Amrit Bottlers Ltd.	74180	122	74058
	Brindavan Bottlers Ltd.	74549	122	74427
	Deedee Enterprises	68271	112	68159
	JN Investment	76061	125	75936
	Malani Impex Inc.	75488	124	75364
	Metalfab Hightech Private Limited	67264	110	67154
	Sankalp International	71990	118	71872
	SE Investment	76851	126	76725
Feb-09	CEPCO	704779	2289	702490
	Delta Enterprises	146491	476	146015
	Ushdev International	144664	470	144194
	Brindavan Agro Industries	90781	295	90486
	Amrit Bottlers Ltd.	51290	167	51123
	Brindavan Bottlers Ltd.	48398	157	48241
	Deedee Enterprises	47978	156	47822
	JN Investment	48852	159	48693
	Malani Impex Inc.	49550	161	49389

	Metalfab Hightech Private Limited	45709	148	45561
	Sankalp International	47322	154	47168
	SE Investment	51364	167	51197
Mar-09	CEPCO	1134611	1449	1133162
	Delta Enterprises	241752	308	241444
	Ushdev International	232691	297	232394
	Brindavan Agro Industries	156509	200	156309
	Amrit Bottlers Ltd.	73170	93	73077
	Brindavan Bottlers Ltd.	77362	99	77263
	Deedee Enterprises	78505	100	78405
	JN Investment	75959	97	75862
	Malani Impex Inc.	76726	98	76628
	Metalfab Hightech Private Limited	75244	96	75148
	Sankalp International	70562	90	70472
	SE Investment	81523	104	81419
Apr-09	CEPCO	1418085	2689	1415396
	Delta Enterprises	305977	580	305397
	Ushdev International	318062	603	317459
	Brindavan Agro Industries	201523	382	201141
	Amrit Bottlers Ltd.	103011	195	102816
	Brindavan Bottlers Ltd.	104302	198	104104
	Deedee Enterprises	103847	197	103650
	JN Investment	107730	204	107526
	Malani Impex Inc.	95370	181	95189

	Metalfab Hightech Private Limited	98454	187	98267
	Sankalp International	91010	173	90837
	SE Investment	111985	212	111773
May-09	CEPCO	2442767	826	2441941
	Delta Enterprises	518416	172	518244
	Ushdev International	556610	188	556422
	Brindavan Agro Industries	359568	122	359446
	Amrit Bottlers Ltd.	186999	63	186936
	Brindavan Bottlers Ltd.	192555	65	192490
	Deedee Enterprises	182408	62	182346
	JN Investment	183562	62	183500
	Malani Impex Inc.	184443	62	184381
	Metalfab Hightech Private Limited	170934	58	170876
	Sankalp International	175741	59	175682
	SE Investment	183904	62	183842
Jun-09	CEPCO	2194016	234	2193782
	Delta Enterprises	464624	50	464574
	Ushdev International	471426	50	471376
	Brindavan Agro Industries	304781	33	304748
	Amrit Bottlers Ltd.	151412	16	151396
	Brindavan Bottlers Ltd.	153123	16	153107
	Deedee Enterprises	155113	17	155096
	JN Investment	147576	16	147560
	Malani Impex Inc.	151155	16	151139

	Metalfab Hightech Private Limited	150299	16	150283
	Sankalp International	152657	16	152641
	SE Investment	150719	16	150703
Jul-09	CEPCO	1731011	1812	1729199
	Delta Enterprises	391320	410	390910
	Ushdev International	393235	412	392823
	Brindavan Agro Industries	240340	252	240088
	Amrit Bottlers Ltd.	97803	102	97701
	Brindavan Bottlers Ltd.	132078	138	131940
	Deedee Enterprises	132926	139	132787
	JN Investment	126948	133	126815
	Malani Impex Inc.	136017	142	135875
	Metalfab Hightech Private Limited	132421	139	132282
	Sankalp International	138330	145	138185
	SE Investment	134119	140	133979
Aug-09	CEPCO	2162685	522.00	2162163
	Delta Enterprises	489597	118.00	489479
	Ushdev International	499958	121.00	499837
	Brindavan Agro Industries	307446	74.00	307372
	Amrit Bottlers Ltd.	161955	39.00	161916
	Brindavan Bottlers Ltd.	166446	40.00	166406
	Deedee Enterprises	167396	40.00	167356
	JN Investment	165580	40.00	165540
	Malani Impex Inc.	166302	40.00	166262

	Metalfab Hightech Private Limited	165495	40.00	165455
	Sankalp International	158819	38.00	158781
	SE Investment	132695	32.00	132663
Sep-09	CEPCO	2037127	1003.00	2036124
	Delta Enterprises	429724	212.00	429512
	Ushdev International	455922	224.00	455698
	Brindavan Agro Industries	277171	136.00	277035
	Amrit Bottlers Ltd.	145858	72.00	145786
	Brindavan Bottlers Ltd.	143408	71.00	143337
	Deedee Enterprises	143682	71.00	143611
	JN Investment	152048	75.00	151973
	Malani Impex Inc.	145896	72.00	145824
	Metalfab Hightech Private Limited	146059	72.00	145987
	Sankalp International	152533	75.00	152458
	SE Investment	139314	69.00	139245
Oct-09	CEPCO	584964	4144.00	580820
	Delta Enterprises	127993	908.00	127085
	Ushdev International	130234	923.00	129311
	Brindavan Agro Industries	79929	566.00	79363
	Amrit Bottlers Ltd.	47006	333.00	46673
	Brindavan Bottlers Ltd.	43572	309.00	43263
	Deedee Enterprises	44838	318.00	44520
	JN Investment	37772	268.00	37504
	Malani Impex Inc.	18740	133.00	18607

	Metalfab Hightech Private Limited	43204	306.00	42898
	Sankalp International	43741	310.00	43431
	SE Investment	43206	306.00	42900
Nov-09	CEPCO	752088	4246.00	747842
	Delta Enterprises	137806	778.00	137028
	Ushdev International	152346	860.00	151486
	Brindavan Agro Industries	106605	602.00	106003
	Amrit Bottlers Ltd.	48321	272.00	48049
	Brindavan Bottlers Ltd.	50612	286.00	50326
	Deedee Enterprises	49343	279.00	49064
	JN Investment	49607	280.00	49327
	Malani Impex Inc.	47658	269.00	47389
	Metalfab Hightech Private Limited	48905	276.00	48629
	Sankalp International	49503	280.00	49223
	SE Investment	51118	289.00	50829
			<b>Net Generation(GWh)</b>	<b>38.13</b>
			<b>Total CERs</b>	<b>33,322</b>

\*Although the crediting period starts from 30<sup>th</sup> October 2008, the project proponent wishes to forego the generation for 2 days i.e. 30<sup>th</sup> October 2008 & 31<sup>st</sup> October 2008 for the purpose of simplicity in the calculation of Emission Reductions.

Accordingly:

Emission reduction calculation for the period 1<sup>st</sup> November 2008 to 30<sup>th</sup> November 2009:

$$ER = 38.13 \text{ (GWh)} * 873.87 \text{ (tCO}_2\text{/GWh)} = 33,322 \text{ tCO}_2$$

Total Emission Reductions for the period 1st November 2008 to 30<sup>th</sup> November 2009:

$$= \mathbf{33,322 \text{ tCO}_2}$$