

Bundled Wind Power Project in Tamil Nadu managed by Enercon India
Limited – II

MONITORING REPORT

Monitoring Period: 01/04/2006 to 07/10/2009

(Inclusive of both days)

Version: 2.0

Date: 08/1/2010

Enercon (India) Limited

Enercon Tower, A-9, Veera Industrial Estate, Veera Desai Road,

Andheri West - 400053

Mumbai (Maharashtra)

Project Summary:**Project:**

Bundled Wind Power project in Tamil Nadu managed by Enercon India Limited – II

Version: Version 2.0

Date: 8/1/2010

Standard Followed: VCS 2007.1

Project Participants:

Name of Party involved ((host) indicates a host Party)	Private and/or public entity (ies) project participants (*) (as applicable)	Kindly indicate if the Party involved wishes to be considered as project participant (Yes/No)
Government of India (Host)	Enercon (India) Ltd	No

Project Location

The project is located at Pushpathur site in Dindigull district and Chinnakkampalayam in Erode district of Tamil Nadu

Monitoring Periods

Start: April 2006 End: October 2009

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Annex 1: Contact Information on Participants in the Project Activity

A. Project Description:

The project under consideration is set up to produce clean power from the wind electric converters. The generated electricity is wheeled using the state transmission system for captive consumption. The Project leads to reduced greenhouse gas (GHG) emissions because it displaces electricity from fossil fuel based electricity generation plants. The project is helping in bridging the demand supply gap by using wind as a source of generating electrical energy.

The project activity consists of the 45 machines of Enercon make of 800 KW each, totaling to the capacity of 36 MW. The Project considered harnessed renewable resources in the region, thereby displacing non-renewable natural resources thereby ultimately leading to sustainable economic and environmental development. Enercon (India) Ltd (“Enercon” or “EIL”) is the equipment supplier and the operations and maintenance contractor for the Project.

SI NO.	Customer Name	HTHC No	Feeders	EB Substation
1	Premier Spinnings and Weaving Mills Pvt.Ltd.	D47	E-3	Melkaraipatti (110/22KV)
2	Premier Spinnings and Weaving Mills Pvt.Ltd.	D49	E-6	Melkaraipatti (110/22KV)
3	Premier Spinnings and Weaving Mills Pvt.Ltd.	D52	Viscose	Melkaraipatti (110/22KV)
4	Premier Spinnings and Weaving Mills Pvt .Ltd.	D54	E-3	Melkaraipatti (110/22KV)
5	Premier Spinnings and Weaving Mills Pvt.Ltd.	D79	E-6	Melkaraipatti (110/22KV)
6	Premier Spinnings and Weaving Mills Pvt.Ltd.	D80	E-6	Melkaraipatti (110/22KV)
7	Premier Spinnings and Weaving Mills Pvt.Ltd.	D81	E-3	Melkaraipatti (110/22KV)
8	Premier Spinnings and Weaving Mills Pvt .Ltd.	D82	E-2	Thalaiyoothu (110/22KV)
9	Premier Spinnings and Weaving Mills Pvt .Ltd.	D83	E-2	Thalaiyoothu (110/22KV)
10	Premier Spinnings and Weaving Mills Pvt .Ltd.	D84	E-2	Thalaiyoothu (110/22KV)
11	Premier Fine Yarns P Ltd	D26	E-1	Thalaiyoothu

				(110/22KV)
12	Premier Fine Yarns P Ltd	D27	GVG	Thalaiyoothu (110/22KV)
13	Premier Fine Yarns P Ltd	D28	Viscose	Thalaiyoothu (110/22KV)
14	Premier Fine Yarns P Ltd	D29	E-1	Thalaiyoothu (110/22KV)
15	Premier Fine Yarns P Ltd	D30	E-2	Thalaiyoothu (110/22KV)
16	Premier Fine Yarns P Ltd	D30	E-2	Thalaiyoothu (110/22KV)
17	Premier Fine Yarns P Ltd	D32	E-2	Thalaiyoothu (110/22KV)
18	Premier Fine Yarns P Ltd	D32	E-2	Thalaiyoothu (110/22KV)
19	Premier Fine Yarns P Ltd	D33	E-1	Thalaiyoothu (110/22KV)
20	Premier Fine Yarns P Ltd	D34	E-1	Thalaiyoothu (110/22KV)
21	Coimbatore Polytex Pvt.Ltd	D37	Viscose	Melkaraipatti (110/22KV)
22	Coimbatore Polytex Pvt.Ltd	D38	Viscose	Melkaraipatti (110/22KV)
23	Coimbatore Polytex Pvt.Ltd	D43	GVG	Melkaraipatti (110/22KV)
24	Coimbatore Polytex Pvt.Ltd	D43	GVG	Melkaraipatti (110/22KV)
25	Coimbatore Polytex Pvt.Ltd	D44	GVG	Melkaraipatti (110/22KV)
26	Coimbatore Polytex Pvt.Ltd	D45	GVG	Thalaiyoothu (110/22KV)
27	Coimbatore Polytex Pvt.Ltd	D68	E-2	Melkaraipatti (110/22KV)
28	Coimbatore Polytex Pvt.Ltd	D73	E-2	Melkaraipatti (110/22KV)
29	Coimbatore Polytex Pvt.Ltd	D74	E-2	Melkaraipatti (110/22KV)
30	Coimbatore Polytex Pvt.Ltd	D75	E-2	Melkaraipatti (110/22KV)
31	Coimbatore Twisters Pvt. Ltd.	D78	E-2	Melkaraipatti (110/22KV)
32	Bannari Amman Spinning Mills Ltd.	1067	E -3	Chinnaputhur (110/22 KV)
33	Bannari Amman Spinning Mills Ltd.	1068	E-3	Chinnaputhur (110/22 KV)

34	Bannari Amman Spinning Mills Ltd.	1069	E-3	Chinnaputhur (110/22 KV)
35	Bannari Amman Spinning Mills Ltd.	1070	E-7	Chinnaputhur (110/22 KV)
36	Bannari Amman Spinning Mills Ltd.	1070	E-7	Chinnaputhur (110/22 KV)
37	Bannari Amman Spinning Mills Ltd.	1071	E-7	Chinnaputhur (110/22 KV)
38	Bannari Amman Spinning Mills Ltd.	1072	E-7	Chinnaputhur (110/22 KV)
39	Bannari Amman Spinning Mills Ltd.	1072	E-7	Chinnaputhur (110/22 KV)
40	Bannari Amman Spinning Mills Ltd.	1073	E-7	Chinnaputhur (110/22 KV)
41	Bannari Amman Spinning Mills Ltd.	1077	E-3	Chinnaputhur (110/22 KV)
42	Bannari Amman Spinning Mills Ltd.	1077	E-3	Chinnaputhur (110/22 KV)
43	Bannari Amman Spinning Mills Ltd.	1086	E-3	Chinnaputhur (110/22 KV)
44	Bannari Amman Spinning Mills Ltd.	1106	E-7	Chinnaputhur (110/22 KV)
45	Bannari Amman Spinning Mills Ltd.	1106	E-7	Chinnaputhur (110/22 KV)

B. Project Performance:

The project has supplied 219.832 GWh of electricity to the grid in the monitoring period, which indicates that the project has performed reasonably during the monitoring period (April 2006 to October 2009). The details of the net electricity supplied to the grid for the monitoring period is detailed as follows:

Year	Net Electricity Supplied (kWh)
April 2006 to December 2006	17029920
January 2007 to December 2007	65892324
January 2008 to December 2008	63658560
January 2009 to October 2009	73251984
Net Electricity supplied to the grid in the given monitoring period (GWh)	219832788

There is no major breakdown in the project activity for the monitoring period of April 2006 to October 2009.

C. Project Location:

The project located at Pushpathur site in Dindigull district and Chinnakkampalayam in Erode district of Tamil Nadu

The location of the units is on the micrositing data to get optimum performance.

SI NO.	Customer Name	Feeders	EB Substation	Latitude			Longitude			UIN
				Deg	Minutes	Second	Deg	Minutes	Second	
1	Premier Spinnings and Weaving Mills Pvt.Ltd.	E-3	Melkaraipatti (110/22KV)	10.00	32.00	5.05	77.00	25.00	20.91	PSWMPLPU-09
2	Premier Spinnings and Weaving Mills Pvt.Ltd.	E-6	Melkaraipatti (110/22KV)	10.00	32.00	9.20	77.00	25.00	35.41	PSWMPLPU-08
3	Premier Spinnings and Weaving Mills Pvt.Ltd.	Viscose	Melkaraipatti (110/22KV)	10.00	32.00	24.92	77.00	25.00	1.08	PSWMPLPU-10
4	Premier Spinnings and Weaving Mills Pvt .Ltd.	E-3	Melkaraipatti (110/22KV)	10.00	34.00	22.31	77.00	25.00	37.47	PSWMPLPU-05
5	Premier Spinnings and Weaving Mills Pvt.Ltd.	E-6	Melkaraipatti (110/22KV)	10.00	34.00	49.80	77.00	26.00	35.98	PSWMPLPU-06
6	Premier Spinnings and Weaving Mills Pvt.Ltd.	E-6	Melkaraipatti (110/22KV)	10.00	34.00	57.15	77.00	26.00	52.68	PSWMPLPU-07

7	Premier Spinnings and Weaving Mills Pvt.Ltd.	E-3	Melkaraipatti (110/22KV)	10.00	34.00	35.66	77.00	24.00	6.33	PSWMPLPU-03
8	Premier Spinnings and Weaving Mills Pvt .Ltd.	E-2	Thalaiyoothu (110/22KV)	10.00	34.00	58.52	77.00	24.00	3.72	PSWMPLPU-02
9	Premier Spinnings and Weaving Mills Pvt .Ltd.	E-2	Thalaiyoothu (110/22KV)	10.00	34.00	34.42	77.00	23.00	41.60	PSWMPLPU-01
10	Premier Spinnings and Weaving Mills Pvt .Ltd.	E-2	Thalaiyoothu (110/22KV)	10.00	34.00	29.82	77.00	24.00	38.05	PSWMPLPU-04
11	Premier Fine Yarns P Ltd	E-1	Thalaiyoothu (110/22KV)	10.00	33.00	23.98	77.00	24.00	45.82	PMPLPU-03
12	Premier Fine Yarns P Ltd	GVG	Thalaiyoothu (110/22KV)	10.00	33.00	31.11	77.00	24.00	40.85	PMPLPU-04
13	Premier Fine Yarns P Ltd	Viscose	Thalaiyoothu (110/22KV)	10.00	33.00	6.07	77.00	25.00	30.66	PMPLPU-01
14	Premier Fine Yarns P Ltd	E-1	Thalaiyoothu (110/22KV)	10.00	33.00	11.92	77.00	25.00	23.14	PMPLPU-02
15	Premier Fine Yarns P Ltd	E-2	Thalaiyoothu (110/22KV)	10.00	33.00	43.81	77.00	25.00	35.03	PMPLPU-05
16	Premier Fine Yarns P Ltd	E-2	Thalaiyoothu (110/22KV)	10.00	33.00	56.76	77.00	25.00	39.05	PMPLPU-06
17	Premier Fine Yarns P Ltd	E-2	Thalaiyoothu (110/22KV)	10.00	33.00	51.10	77.00	25.00	13.65	PMPLPU-07

18	Premier Fine Yarns P Ltd	E-2	Thalaiyoothu (110/22KV)	10.00	33.00	54.39	77.00	25.00	4.11	PMPLPU-08
19	Premier Fine Yarns P Ltd	E-1	Thalaiyoothu (110/22KV)	10.00	33.00	55.90	77.00	24.00	49.46	PMPLPU-09
20	Premier Fine Yarns P Ltd	E-1	Thalaiyoothu (110/22KV)	10.00	34.00	15.28	77.00	24.00	60.00	PMPLPU-10
21	Coimbatore Polytex Pvt.Ltd	Viscose	Melkaraipatti (110/22KV)	10.00	34.00	32.85	77.00	25.00	45.31	CPPLPU-03
22	Coimbatore Polytex Pvt.Ltd	Viscose	Melkaraipatti (110/22KV)	10.00	34.00	35.89	77.00	25.00	26.63	CPPLPU-02
23	Coimbatore Polytex Pvt.Ltd	GVG	Melkaraipatti (110/22KV)	10.00	34.00	43.51	77.00	25.00	21.33	CPPLPU-01
24	Coimbatore Polytex Pvt.Ltd	GVG	Melkaraipatti (110/22KV)	10.00	34.00	51.46	77.00	25.00	45.95	CPPLPU-04
25	Coimbatore Polytex Pvt.Ltd	GVG	Melkaraipatti (110/22KV)	10.00	35.00	3.85	77.00	25.00	45.85	CPPLPU-05
26	Coimbatore Polytex Pvt.Ltd	GVG	Thalaiyoothu (110/22KV)	10.00	35.00	37.18	77.00	25.00	26.49	CPPLPU-06

27	Coimbatore Polytex Pvt.Ltd	E-2	Melkaraipatti (110/22KV)	10.00	35.00	44.64	77.00	25.00	33.42	CPPLPU-07
28	Coimbatore Polytex Pvt.Ltd	E-2	Melkaraipatti (110/22KV)	10.00	35.00	55.20	77.00	26.00	9.54	CPPLPU-10
29	Coimbatore Polytex Pvt.Ltd	E-2	Melkaraipatti (110/22KV)	10.00	36.00	2.31	77.00	25.00	32.83	CPPLPU-08
30	Coimbatore Polytex Pvt.Ltd	E-2	Melkaraipatti (110/22KV)	10.00	36.00	14.23	77.00	25.00	30.99	CPPLPU-09
31	Coimbatore Twisters Pvt. Ltd.	E-2	Melkaraipatti (110/22KV)	10.00	34.00	8.51	77.00	25.00	33.48	CTPLPU-01
32	Bannari Amman Spinning Mills Ltd.	E -3	Chinnaputhur (110/22 KV)	10.00	44.00	11.96	77.00	25.00	2.73	BASMLDH-01
33	Bannari Amman Spinning Mills Ltd.	E-3	Chinnaputhur (110/22 KV)	10.00	44.00	19.64	77.00	24.00	57.79	BASMLDH-02

34	Bannari Amman Spinning Mills Ltd.	E-3	Chinnaputhur (110/22 KV)	10.00	44.00	33.46	77.00	24.00	54.42	BASMLDH-03
35	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	44.00	50.65	77.00	24.00	35.47	BASMLDH-09
36	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	45.00	3.08	77.00	24.00	35.14	BASMLDH-10
37	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	45.00	13.14	77.00	24.00	30.85	BASMLDH-11
38	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	44.00	50.84	77.00	24.00	19.45	BASMLDH-13
39	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	44.00	57.94	77.00	24.00	15.10	BASMLDH-14

40	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	45.00	21.51	77.00	24.00	20.58	BASMLDH-12
41	Bannari Amman Spinning Mills Ltd.	E-3	Chinnaputhur (110/22 KV)	10.00	44.00	42.34	77.00	25.00	2.58	BASMLDH-04
42	Bannari Amman Spinning Mills Ltd.	E-3	Chinnaputhur (110/22 KV)	10.00	44.00	49.72	77.00	24.00	58.89	BSAMLDH-08
43	Bannari Amman Spinning Mills Ltd.	E-3	Chinnaputhur (110/22 KV)	10.00	45.00	2.42	77.00	24.00	53.92	BASMLDH-07
44	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	44.00	42.99	77.00	25.00	15.38	BASMLDH-05
45	Bannari Amman Spinning Mills Ltd.	E-7	Chinnaputhur (110/22 KV)	10.00	44.00	50.68	77.00	25.00	10.05	BASMLDH-06

D. Project Reference:

Title of the project	:	“Bundled Wind Power project in Tamil Nadu managed by Enercon India Limited – II”
Project activity scale	:	Large
Sectoral scope	:	1, Energy Industries (renewable/- non renewable sources)
Type and Category	:	“Consolidated baseline methodology for grid-connected electricity generation from renewable sources”
Approved baseline Methodology	:	ACM 0002 Version 10
Approved monitoring methodology	:	ACM 0002 Version 10

E. Monitoring Information:

The general conditions set out for metering, recording, meter readings, meter inspections, Test & Checking and communication are as per the agreement with state electricity board .

Metering: Net electricity supplied to grid will be measured through meter readings of the two-way export meter installed by TNEB. The installed meters measure the electricity export and electricity import for each WEG or group of WEGs of the project which are designated by unique identification no. i.e. HT SC No. Project activity has the dedicated metering system and there are no other WEGs connected to the joint meters of the project activity.

Meter Readings: The monthly meter reading is taken jointly by the parties (EIL personals and personals of TNEB) for the last month. At the conclusion of each meter reading an appointed representative of TNEB and Enercon sign a document indicating the number of Kilowatt-hours (kWH) indicated by the meter.

Inspection of Energy Meters: The two-way export meter and all associated instruments, transformers installed at the project are of 0.5 accuracy classes. The meter is jointly inspected and sealed on behalf of the parties and is not to be interfered with by either party except in the presence of the other party or its accredited representatives.

Meter Test Checking: The meter is tested for accuracy with reference to a portable standard meter. The portable standard meter is also owned by TNEB. The meter is deemed to be working satisfactorily if the errors are within specifications for meters of 0.5 accuracy classes. The consumption registered by the meter alone holds good for the

purpose of metering electricity supplied to the grid as long as the error in the meter is within the permissible limits.

If during the meter test checking, the meter is found to be beyond permissible limits of error, the meter shall be immediately calibrated and the correction applied to the reading registered by the meter to arrive the correct reading of energy supplied for metering electricity supplied to the grid for the period from the last month's meter reading up to the current test. Meter reading for the period thereafter till the next monthly reading shall be as per the calibrated meter.

Archiving of data: Data shall be archived for crediting period + 2 years.

F. Metering System:

A metering equipment is provided besides each WEG's, although other project proponents are also connected to the substation but individual metering of WEG's help in projecting accurate values of electricity exported. Since each WEG has unique billing meter which is installed and owned by TNEB, hence there is no need of apportioning.

Metering Equipment: Metering equipment is electronic trivector meter of accuracy class **0.5%** required for the project. Dedicated core of both CT's and PT's of required accuracy is made available by the EIL to TNEB.

The meter is tested for accuracy time by time as per TNEB guidelines at the time of installation.

If during the tests, the meter is found to be beyond the permissible limits of error, the meter shall be immediately calibrated and the correction applied to the reading registered by the meter to arrive the correct reading of energy supplied for billing purposes for the period from the last month's meter reading up to the current test. Billing for the period thereafter till the next monthly reading shall be as per the calibrated meter.

Calibration of instruments:

The meters installed at the wind farm are as per TNEB guidelines and accuracy level. The meters are checked for accuracy on a regular basis. TNEB meter testing is done by a separate division of electricity board, which takes care of meter testing in the event of any abnormality observed.

G. Monitoring Parameters:

The monitoring parameter is the electricity exported to the grid from the project and electricity imported from the grid to the project. Electricity exported to the grid is metered through the two ways export meter installed by TNEB at the high voltage side of the step up transformer installed at the project Site. There are 38 metering points for the project. The metering is done at the 22 kV bay by two-way export meter installed by

TNEB. At the conclusion of each meter reading an appointed representative of TNEB and Enercon sign a document indicating the number of Kilowatt-hours indicated by the meter.

Meter Details:

S. No.	Name of Customers	HTHC No.	Commissioning Date	No. of M/C	Capacity (MW)	Type	Meter No.	Calibration Date
1	Premier Spg & Wvg Mills Pvt Ltd	D47	21-Mar-07	10	8	ELSTER	04863734	18-Jun-09
2	Premier Spg & Wvg Mills Pvt Ltd	D49	21-Mar-07			ELSTER	04890022	18-Jun-09
3	Premier Spg & Wvg Mills Pvt Ltd	D52	26-Mar-07			ELSTER	04863759	18-Jun-09
4	Premier Spg & Wvg Mills Pvt Ltd	D54	26-Mar-07			ELSTER	04865534	18-Jun-09
5	Premier Spg & Wvg Mills Pvt Ltd	D79	25-Apr-07			ELSTER	04865507	17-Jun-09
6	Premier Spg & Wvg Mills Pvt Ltd	D80	25-Apr-07			ELSTER	TNB02400	17-Jun-09
7	Premier Spg & Wvg Mills Pvt Ltd	D81	25-Apr-07			ELSTER	04865535	18-Jun-09
8	Premier Spg & Wvg Mills Pvt Ltd	D82	9-May-07			ELSTER	04865504	17-Jun-09
9	Premier Spg & Wvg Mills Pvt Ltd	D83	9-May-07			ELSTER	04865503	17-Jun-09
10	Premier Spg & Wvg Mills Pvt Ltd	D84	11-May-07			ELSTER	04865505	17-Jun-09
11	Premier Fine Yarns Pvt Ltd	D26	26-Feb-07	10	8	ELSTER	04865399	17-Jun-09
12	Premier Fine Yarns Pvt Ltd	D27	26-Feb-07			ELSTER	04865401	17-Jun-09
13	Premier Fine Yarns Pvt Ltd	D28	26-Feb-07			ELSTER	04865402	17-Jun-09
14	Premier Fine Yarns Pvt Ltd	D29	26-Feb-07			ELSTER	04865403	17-Jun-09

15	Premier Fine Yarns Pvt Ltd	D30	27-Feb-07			ELSTER	04863758	17-Jun-09
16	Premier Fine Yarns Pvt Ltd	D30	27-Feb-07			ELSTER	04863758	17-Jun-09
17	Premier Fine Yarns Pvt Ltd	D32	7-Mar-07			ELSTER	04863757	17-Jun-09
18	Premier Fine Yarns Pvt Ltd	D32	7-Mar-07			ELSTER	04863757	17-Jun-09
19	Premier Fine Yarns Pvt Ltd	D33	7-Mar-07			ELSTER	04863762	17-Jun-09
20	Premier Fine Yarns Pvt Ltd	D34	7-Mar-07			ELSTER	04865400	17-Jun-09
21	Coimbatore Twisted (Premier Mills)	D37	14-Mar-07	1	0.8	ELSTER	04863761	18-Jun-09
22	Coimbatore Polytex (Premier Mills)	D38	14-Mar-07	10	8	ELSTER	04865383	18-Jun-09
23	Coimbatore Polytex (Premier Mills)	D43	21-Mar-07			ELSTER	04865533	18-Jun-09
24	Coimbatore Polytex (Premier Mills)	D43	21-Mar-07			ELSTER	04865533	18-Jun-09
25	Coimbatore Polytex (Premier Mills)	D44	21-Mar-07			ELSTER	04865526	18-Jun-09
26	Coimbatore Polytex (Premier Mills)	D45	21-Mar-07			ELSTER	04865528	18-Jun-09
27	Coimbatore Polytex (Premier Mills)	D68	29-Mar-07			ELSTER	04865501	18-Jun-09
28	Coimbatore Polytex (Premier Mills)	D73	30-Mar-07			ELSTER	04959599	18-Jun-09
29	Coimbatore Polytex (Premier Mills)	D74	30-Mar-07			ELSTER	04865530	18-Jun-09
30	Coimbatore Polytex (Premier Mills)	D75	30-Mar-07			ELSTER	04865531	18-Jun-09
31	Coimbatore Polytex (Premier Mills)	D78	16-Apr-07			ELSTER	04865500	18-Jun-09
32	Bannari Amman Spinning Mills	1067	17-Jan-06	14	11.2	ELSTER	04721986	22-Jun-09

33	Bannari Amman Spinning Mills	1068	17-Jan-06	45	36	ELSTER	TNB02327	22-Jun-09
34	Bannari Amman Spinning Mills	1069	17-Jan-06			ELSTER	04725673	22-Jun-09
35	Bannari Amman Spinning Mills	1070	17-Jan-06			ELSTER	04725674	22-Jun-09
36	Bannari Amman Spinning Mills	1070	17-Jan-06			ELSTER	04725674	22-Jun-09
37	Bannari Amman Spinning Mills	1071	17-Jan-06			ELSTER	02373937	22-Jun-09
38	Bannari Amman Spinning Mills	1072	17-Jan-06			ELSTER	04721860	22-Jun-09
39	Bannari Amman Spinning Mills	1072	17-Jan-06			ELSTER	04721860	22-Jun-09
40	Bannari Amman Spinning Mills	1073	17-Jan-06			ELSTER	04721859	22-Jun-09
41	Bannari Amman Spinning Mills	1077	1-Feb-06			ELSTER	04721982	22-Jun-09
42	Bannari Amman Spinning Mills	1077	1-Feb-06			ELSTER	04721982	22-Jun-09
43	Bannari Amman Spinning Mills	1086	8-Feb-06			ELSTER	04725696	22-Jun-09
44	Bannari Amman Spinning Mills	1106	8-Mar-06			ELSTER	04726631	22-Jun-09
45	Bannari Amman Spinning Mills	1106	8-Mar-06			ELSTER	04726631	22-Jun-09
Total				45	36			

MONITORING PARAMETERS

The monitoring parameter is given in the following table

Data / Parameter:	EG, Export
Data unit:	MWh/year (Mega-watt hour/year)
Description:	Electricity exported to the grid by the project activity in year y
Source of data to be used:	Electricity exported by the project activity to the grid as per JMR
Value of data	220319.800 MWh
Brief description of measurement methods and procedures to be applied:	The Energy generated at the wind farm will be metered and measured by TNEB on monthly basis at the sending end sub-station of the Wind Farm. The monitoring of 'electricity exported to the grid' would be as per the details provided in wheeling and banking agreement.
QA/QC procedures applied:	The calibration of metering equipments is subject to the requirements of EIL officials. The last calibration of billing meter was performed on 17.06.09, 18.06.09 & 22.06.2009. QA/QC procedures will be implemented pursuant to agreement with state electricity board.
Any comment:	The data is archived on paper as well as on electronic media; however the data will be kept for two years after the end of the crediting period or the last issuance of VCUs for this project activity, whichever occurs later.

Data / Parameter:	EG, import
Data unit:	MWh/year (Mega-watt hour/year)
Description:	Electricity imported from the grid
Source of data to be used:	Electricity imported by the project activity from the grid as per JMR.
Value of data	487.012 MWh
Brief description of measurement methods and procedures to be applied:	The Energy generated at the wind farm will be metered and measured by TNEB on monthly basis at the sending end sub-station of the Wind Farm. The monitoring of 'electricity exported to the grid' would be as per the details provided in wheeling and banking agreement.
QA/QC procedures applied:	The calibration of metering equipments is subject to the requirements of EIL officials. The last calibration of billing meter was performed on 17.06.09, 18.06.09 & 22.06.2009. QA/QC procedures will be implemented pursuant to agreement with state electricity board.
Any comment:	The data is archived on paper as well as on electronic media;

	however the data will be kept for two years after the end of the crediting period or the last issuance of VCUs for this project activity, whichever occurs later.
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Data / Parameter:	EG_y, net
Data unit:	MWh (Mega-watt hour)
Description:	Net electricity supplied to the grid by the Project
Source of data to be used:	Calculated from EG _{export} and EG _{import} as (EG _{export} – EG _{import})
Value of data applied for the purpose of calculating expected emission reductions	Net electricity is calculated as following: = 220319.800 – 487.012 MWh =219832.788 MWh
Description of measurement methods and procedures to be applied:	Net electricity supplied to the grid will be calculated by the two-way export Trivector meter. The Net electricity is recorded as following: (Net Electricity = Net Export – Net Import) The procedures for metering and meter reading will be as per the provisions of the wheeling and banking arrangement.
QA/QC procedures to be applied:	QA/QC procedures will be implemented pursuant to wheeling and banking agreement.
Any comment:	

Data / Parameter:	EG, Gross,y
Data unit:	MWh
Description:	Total electricity generation by the wind mills during the year y
Source of data to be used:	Controller attached with each WEC.
Value of data applied for the purpose of calculating expected emission reductions	222888.464 MWh (Details of panel generation is given in Panel generation excel sheet, which is sourced from Enercon website)
Description of measurement methods and procedures to be applied:	This data is the controller data for the monitoring period and can be verified from the website of Enercon (India) Limited.
QA/QC procedures to be applied:	The panel meters are auto calibrated so there is no need for any external agency calibration.
Any comment:	The data (Total electricity generation by the wind mills) will be archived on electronic media as well as on paper. The data will be kept for two years after the end of the crediting period or the last issuance of VERs for this project activity, whichever occurs later -Not used for emission reduction calculation

H. Emission Reduction Calculations:

The emission reduction 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:

$$ER_y = BE_y - PE_y - L_y$$

Project Emissions: The project activity uses wind power to generate electricity and hence the emissions from the project activity are taken as nil.

$$PE_y = 0$$

Leakage: Emissions Leakage on account of the project activity is ignored in accordance with ACM0002.

$$L_y = 0$$

Thus, $ER_y = BE_y$

i.e. the emission reductions are the baseline emissions in this project.

Baseline Emissions:

The baseline emissions (BE_y in tCO_2) are the product of the baseline emissions factor (EF_y in tCO_2/MWh) times the electricity supplied by the project activity to the grid (EG_y in MWh)

$$BE_y = EF_y * EG_y$$

Baseline emission factor (EF_y) has been calculated ex-ante and will not be updated during the crediting period of ten years. As per validated PD, $EF_y = 926.94 \text{ tCO}_2/GWh$ or $0.92694 \text{ tCO}_2/MWh$

Net electricity supplied to the grid and emission reductions by the project activity is calculated using below table:

Year	Electricity Generation (kWh)	Emission Factor (tCO_2/MWh)	Emission Reductions ($tCO_2e/year$)
April 2006 to December 2006	17,029,920	0.92694	15,785
January 2007 to December 2007	658,92,324	0.92694	61,078

January 2008 to December 2008	636,58,560	0.92694	59,007
January 2009 to October 2009	732,51,984	0.92694	67,900
Total VCU's for the monitoring period	219,832,788	0.92694	203770

I. Additionality Consideration:

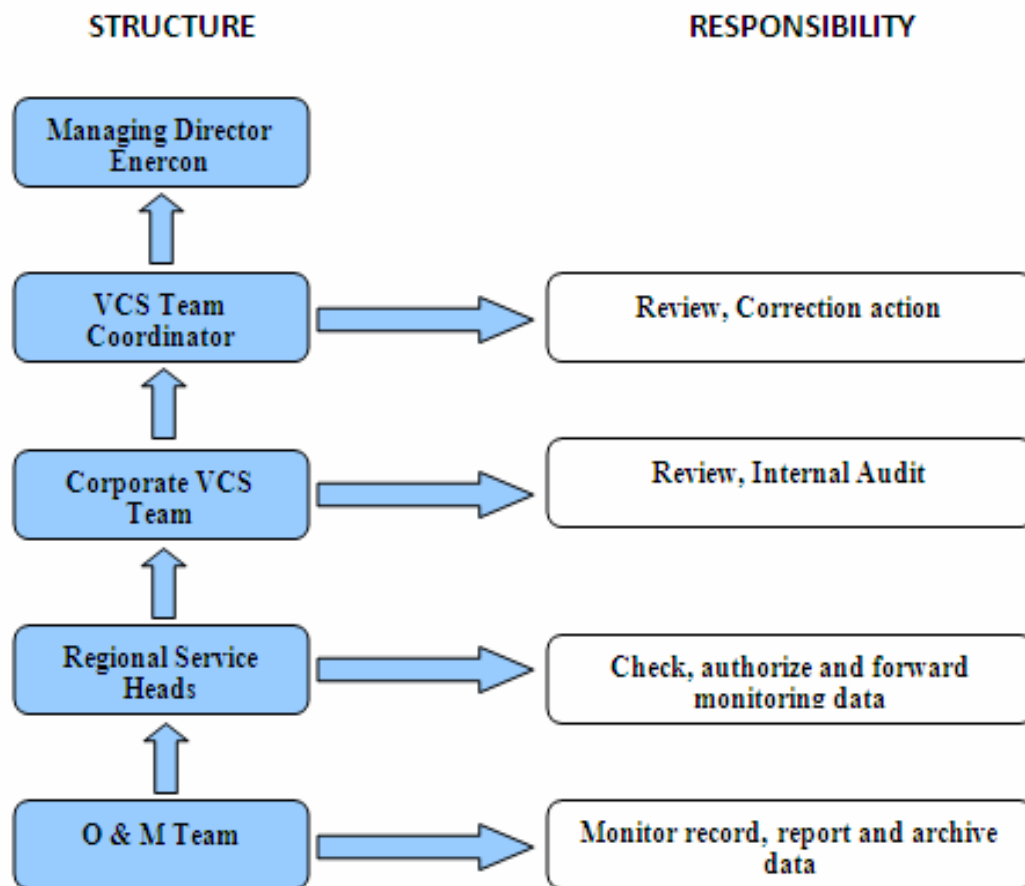
During the validation of the project activity under VCS 2007.1 a Forward Action Requested (FAR) has been raised. As per the FAR 'If the PLF of the project activity exceeds the range of sensitivity analysis (PLF 26.25%) the additionality of the project will be re-assessed during every crediting period, The VERs will be issued if the project is additional.' (Refer Annex 66, 67 of EB48)'For the crediting period of April 2006 to October 2009, the PLF of the project activity comes out to be within the sensitivity range of project additionality the PLF for different customers in the monitoring period are:

Name of the customers	PLF
Premier Spg & Wvg Mills Pvt Ltd	24.08%
Premier Fine Yarns Pvt Ltd	23.58%
Coimbatore Twisted (Premier Mills)	24.43%
Coimbatore Polytex (Premier Mills)	23.64%
Bannari Amman Spinning Mills	24.16%

The above table clearly shows that the actual PLF for the monitoring period of April 2006 to October 2009 falls within the sensitivity range, of project additionality i.e. 21.47% to 26.25%. This clearly shows that the project activity is additional for the prescribed monitoring period.

J. Roles and Responsibility:

The Project is operated and managed by Enercon (India) Ltd. The operational and management structure implemented by Enercon is as follows:



Annex 1: Contact Information on Participants in the Project Activity

Organization:	Enercon (India) Limited
Street/P.O.Box:	A-9, Veera Industrial Estate, Veera Desai Road, Andheri West
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