

MONITORING REPORT FORM (CDM-MR)
Version 01 “In effect as of: 28/09/2010”

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MONITORING REPORT
Version 5.0 and Date 05/12/2011

Title: “ENERCON WIND FARMS IN KARNATAKA BUNDLED PROJECT – 30.40 MW”

Project Reference No: 1291

Monitoring Period - FROM 18/03/2010 TO 31/08/2010 (including first and last day)

SECTION A. General description of the project activity

A.1. Brief description of the project activity: >>

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Objective of the Project

The objective is development, design, engineering, procurement, finance, construction, operation and maintenance of Enercon Wind Farm (Chitradurga) Ltd of 8.8 MW and other wind power projects of 21.60 MW capacity (“Project”) in the Indian state of Karnataka to provide reliable, renewable power to the Karnataka state electricity grid which is part of the Southern regional electricity grid. The Project leads to reduced greenhouse gas emissions because it displaces electricity from fossil fuel based electricity generation plants.

The Project harnesses renewable resources in the region, and thereby displacing non-renewable natural resources thereby ultimately leading to sustainable economic and environmental development. Enercon (India) Limited (“Enercon”) is equipment supplier and the operations and maintenance contractor for the Project. The generated electricity is supplied to Karnataka Power Transmission Company Ltd (“KPTCL”)/ Bangalore Electricity Supply Company Ltd (“BESCOM”) / Hubli Electricity Supply Company Ltd (“HESCOM”) under long-term power purchase agreements (PPA). Enercon Wind Farm (Chitradurga) Ltd is owned by Enercon (India) Limited and Enercon GmbH and the rest of the projects are owned by Enercon’s customers. The details of the Projects are as under:

- | | |
|----------------------------------------------------|---------|
| 1. Enercon Wind Farms (Chitradurga) Ltd: | 8.80 MW |
| 2. Steelfab Offshore | 0.80 MW |
| 3. Dewanchand Ramsaran: | 0.80 MW |
| 4. Elpro International: | 0.80 MW |
| 5. Gautam Ladkat: | 0.80 MW |
| 6. Sameer Ladkat: | 0.80 MW |
| 7. Panama Business Centre: | 1.60 MW |
| 8. Balasahab Ladkat: | 1.60 MW |
| 9. Panama Infrastructure: | 1.60 MW |
| 10. MK Agrotech Private Ltd: | 1.60 MW |
| 11. Srinivas Sirigeri: | 0.80 MW |
| 12. Power Link System Private Limited ¹ | 0.80 MW |
| 13. Dempo Industries: | 0.80 MW |
| 14. Desai Brothers: | 0.80 MW |
| 15. Abhilash Garments & Estates (P) Ltd: | 0.80 MW |
| 16. Prasad Global Solutions: | 1.60 MW |
| 17. Siddaganga Oil Extractions Ltd.: | 1.60 MW |
| 18. Gangadhar Narsingdas Agarwal: | 4.00 MW |

¹ Ownership of one machine has been transferred from “RK Marbles” (as mentioned in the registered PDD) to “Power Link System Private Limited”. The proof of the same has been provided to the DOE.

The first machine under the project activity was commissioned on 29/03/2006 and the last machine under the project activity was commissioned on 29/12/2006. The expected operational lifetime of the project is for 20 years. The total emission reductions achieved under this monitoring period (18/03/2010 to 31/08/2010) is **28,114 tCO₂**.

A.2. Project Participants

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Name of Party ((host) indicates a host Party)	Private and/or public entity(ies) project participants (*) (as applicable)
Government of India (Host)	Enercon (India) Ltd
Government of Japan	Japan Carbon Finance

A.3. Location of the project activity:

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The Project is located in the State of Karnataka that forms part of the Southern regional electricity grid of India. Approximate distance of the project activity from Bangalore by road is 200 km. The nearest major railway station as well as airport is Bangalore. Geo-coordinates of individual machines in the project activity are given below:

S.No	Project Owner	Unique Identification No.	Loc No	Latitude			Longitude		
				Deg.	Min.	Sec.	Deg.	Min.	Sec.
1	Enercon Wind Farms (Chitradurga) Ltd	EWCLA-01	1	14	2	45.2	76	28	8.3
2		EWCLA-02	2	14	2	49.0	76	28	6.3
3		EWCLA-03	3	14	2	52.6	76	28	5.0
4		EWCLA-04	4	14	2	56.7	76	28	4.4
5		EWCLA-05	5	14	3	0.6	76	28	3.8
6		EWCLA-06	6	14	3	4.4	76	28	3.0
7		EWCLA-07	7	14	3	8.8	76	28	2.4
8		EWCLA-08	8	14	3	14.6	76	28	1.2
9		EWCLA-09	9	14	3	18.4	76	28	0.3
10		EWCLA-10	10	14	3	22.1	76	27	59.2
11		EWCLA-11	11	14	3	26.0	76	27	58.6
12	Steelfab Offshore	SFOGH2-01	71	13	57	3.6	76	25	4.9
13	Dewanchand Ramsaran	DRGH2-01	72	13	57	0	76	25	6.7
14	Elpro International	EILGH2-01	59	13	58	50.7	76	25	24.9
15	Gautam Ladkat	GLGH2-01	69	13	57	10.8	76	25	0.9
16	Sameer Ladkat	SLGH2-01	45	13	59	22.4	76	23	52.6
17	Panama Business Centre	PBCGH2-01	65	13	57	23.5	76	24	55
18		PBCGH2-02	66	13	57	20	76	24	54.6

19	Balasahab Ladkat	BMLGH2-01	67	13	57	16.3	76	24	55.9
20		BMLGH2-02	68	13	57	12.9	76	24	57.5
21	Panama Infrastructure:	PIPPGH2-01	43	13	59	28.2	76	23	46.2
22		PIPPGH2-02	44	13	59	28.5	76	23	50.8
23	MK Agrotech Private Ltd	MKAGH2-01	61	13	58	44.3	76	25	26.3
24		MKAGH2-02	62	13	58	40.9	76	25	28
25	Srinivas Sirigeri	SSHD-01	7	13	58	35.6	76	28	23.3
26	Power Link System Private Limited	PLSHD-01	5	13	58	26	76	28	23.2
27	Dempo Industries	DIPLHD-01	6	13	58	29.3	76	28	21.2
28	Desai Brothers	DBLHD-01	1	13	58	11.2	76	28	32.6
29	Abhilash Garments & Estates (P) Ltd	AGEGA-01	11	15	8	57.3	75	38	38.2
30	Prasad Global Solutions:	PGSGA-01	1	15	10	7.9	75	38	34.5
31		PGSGA-02	17	15	8	19.4	75	39	1.8
32	Siddaganga Oil Extractions Ltd	SOEGA-01	14	15	8	40.3	75	38	44.3
33		SOEGA-02	15	15	8	36.5	75	38	46.8
34	Gangadhar Narsingdas Agarwal	GNAGA-01	6	15	9	34.3	75	38	27.1
35		GNAGA-02	7	15	9	26.4	75	38	31.5
36		GNAGA-03	8	15	9	20.5	75	38	32.0
37		GNAGA-04	12	15	8	48.7	75	38	39.4
38		GNAGA-05	13	15	8	44.7	75	38	41.0

A.4. Technical description of the project

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The Project involves 38 wind energy converters (WECs) of Enercon make 800 kW E-48 with internal electrical lines connecting the Project with local evacuation facility. The WECs generates 3-phase power at 400V, which is stepped up to 33 KV. The Project can operate in the frequency range of 47.5–51.5 Hz and in the voltage range of 400 V \pm 12.5%. The other salient features of the state-of-art-technology are:

- Gearless Construction - Rotor & Generator Mounted on same shaft eliminating the Gearbox.
- Variable speed function – has the speed range of 18 to 33 RPM thereby ensuring optimum efficiency at all times.
- Variable Pitch functions ensuring maximum energy capture.
- Near Unity Power Factor at all times.
- Minimum drawl (less than 1% of kWh generated) of Reactive Power from the grid.
- No voltage peaks at any time.
- Operating range of the WEC with voltage fluctuation of -20 to +20%.
- Less Wear & Tear since the system eliminates mechanical brake, which are not needed due to low speed generator which runs at maximum speed of 33 rpm and uses Air Brakes.

- Three Independent Braking Systems.
- Generator achieving rated output at only 33 rpm.
- Incorporates lightning protection system, which includes blades.
- Starts Generation of power at wind speed of 3 m/s.

Enercon (India) Limited has secured and facilitated the technology transfer for wind based renewable energy generation from Enercon GmbH, has established a manufacturing plant at Daman in India, where along with other components the "Synchronous Generators" using "Vacuum Impregnation" technology are manufactured.

A.5. Title, reference and version of the baseline and monitoring methodology applied to the project activity:

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The approved consolidated baseline and monitoring methodology **ACM0002 Version 6.0** (19 May 2006) has been used. The titles of these baseline and monitoring methodologies are "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" and "Consolidated monitoring methodology for grid-connected electricity generation from renewable sources.

A.6. Registration date of the project activity:

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18/03/2010

A.7. Crediting period of the project activity and related information (start date and choice of crediting period):

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The length of the Crediting period of the project activity as per registered PDD is 10 years (Fixed). The crediting period start date is 18/03/2010 and length of crediting period is 10 years (from 18/03/2010 to 17/03/2020).

A.8. Name of responsible person(s)/entity(ies):

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Organization:	Enercon (India) Limited
Street/P.O.Box:	Enercon Tower, A-9, Veera Industrial Estate, Veera Desai Road,
Building:	
City:	Andheri (W),
State/Region:	Mumbai
Postfix/ZIP:	400053
Country:	India
Telephone:	+91-22-66924848
FAX:	+91-22-66921175
E-Mail:	yogesh.mehra@enerconindia.net
URL:	
Represented by:	
Title:	Managing Director
Salutation:	Mr.
Last Name:	Mehra
Middle Name:	
First Name:	Yogesh
Department:	Corporate
Mobile:	+91-98200 40301
Direct FAX:	+91-22-66921175

Direct tel:	+91-22-66924848 extn. 7111
Personal E-Mail:	yogesh.mehra@enerconindia.net

Organization:	Japan Carbon Finance, Ltd.
Street/P.O.Box:	6 th Floor, 1-3 Kundankita, 4-chrome
Building:	Chiyoda-ku
City:	Tokyo
State/Region:	
Postfix/ZIP:	102-0073
Country:	Japan
Telephone:	+81 3 5212 8870
FAX:	+81 3 5212 8886
E-Mail:	jcf@jcarbon.co.jp
URL:	http://www.jcarbon.co.jp/
Represented by:	
Title:	Director General
Salutation:	Mr.
Last Name:	Toshio
Middle Name:	
First Name:	Matsuda
Department:	Carbon Finance Department

SECTION B. Implementation of the project activity

B.1. Implementation status of the project activity

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The first machine under the project activity was commissioned on 29/03/2006 and last machine under the project activity was commissioned on 29/12/2006. The project activity consists of 38 machines (800 kWh) of Enercon make E-48 totaling to a capacity of 30.4 MW. The commissioning date for all the machines included in the project activity is given in the table below.

S.No	Project Owner	Unique Identification No.	Loc No	Commissioning date
1	Enercon Wind Farms (Chitradurga) Ltd	EWCLA-01	1	06/05/2006
2		EWCLA-02	2	06/05/2006
3		EWCLA-03	3	06/05/2006
4		EWCLA-04	4	06/05/2006
5		EWCLA-05	5	06/05/2006
6		EWCLA-06	6	06/05/2006
7		EWCLA-07	7	31/03/2006
8		EWCLA-08	8	31/03/2006
9		EWCLA-09	9	31/03/2006
10		EWCLA-10	10	31/03/2006
11		EWCLA-11	11	31/03/2006
12	Steelfab Offshore	SFOGH2-01	71	31/03/2006
13	Dewanchand	DRGH2-01	72	31/03/2006

	Ramsaran			
14	Elpro International	EILGH2-01	59	31/03/2006
15	Gautam Ladkat	GLGH2-01	69	31/03/2006
16	Sameer Ladkat	SLGH2-01	45	31/03/2006
17	Panama Business Centre	PBCGH2-01	65	31/03/2006
18		PBCGH2-02	66	31/03/2006
19	Balasahab Ladkat	BMLGH2-01	67	31/03/2006
20		BMLGH2-02	68	31/03/2006
21	Panama Infrastructure:	PIPPGH2-01	43	31/03/2006
22		PIPPGH2-02	44	31/03/2006
23	MK Agrotech Private Ltd	MKAGH2-01	61	31/03/2006
24		MKAGH2-02	62	31/03/2006
25	Srinivas Sirigeri	SSHD-01	7	29/03/2006
26	Power Link System Private Limited	PLSHD-01	5	29/03/2006
27	Dempo Industries	DIPLHD-01	6	29/03/2006
28	Desai Brothers	DBLHD-01	1	29/03/2006
29	Abhilash Garments & Estates (P) Ltd	AGEGA-01	11	29/12/2006
30	Prasad Global Solutions:	PGSGA-01	1	29/12/2006
31		PGSGA-02	17	29/12/2006
32	Siddaganga Oil Extractions Ltd	SOEGA-01	14	31/03/2006
33		SOEGA-02	15	31/03/2006
34	Gangadhar Narsingdas Agarwal	GNAGA-01	6	29/12/2006
35		GNAGA-02	7	29/12/2006
36		GNAGA-03	8	29/12/2006
37		GNAGA-04	12	29/12/2006
38		GNAGA-05	13	29/12/2006

Enercon operation and maintenance activities are ISO 9001:2000 certified and all the events are recorded in the log book available at the project site. Referring to the data available it can be inferred that there have not been any major special events for any of the machines that are included in the project activity. As a part of regular maintenance the machines are stopped for mechanical and electrical maintenance for 16 to 18 hours annually and for visual inspection for 6 to 7 hours quarterly.

B.2. Revision of the monitoring plan

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Revision of monitoring plan has been successfully completed and approved by UNFCCC on 21/07/2011 for the project activity. The approved monitoring plan has been explained in section C of the monitoring report.

B.3. Request for deviation applied to this monitoring period

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Not Applicable

B.4. Notification or request of approval of changes

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The notification for changes was submitted to UNFCCC with respect to typological error in PDD regarding location and geo-coordinates of the project activity & change of one investor i.e. one WEC of R K Marble was transferred to Power Link System Private Limited. UNFCCC has approved the notification on 16/06/2011. The correct location & geo-coordinates of the project activity has been reflected in section A.3 of the Monitoring report. The change of investor has been also been incorporated in the Monitoring report.

SECTION C. Description of the monitoring system

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Approved monitoring methodology ACM0002 / Version 06 Sectoral Scope: 1, “Consolidated monitoring methodology for zero-emissions grid-connected electricity generation from renewable sources”, by CDM - Meth Panel is proposed to be used to monitor the emission reductions.

This approved monitoring methodology requires monitoring of the following:

- Electricity generation from the project activity; and
- Operating margin emission factor and build margin emission factor of the grid, where *ex post* determination of grid emission factor has been chosen

Since the baseline methodology is based on *ex ante* determination of the baseline, the monitoring of operating margin emission factor and build margin emission factor is not required.

There is dedicated main and check meters for each of the sub projects included in the project activity at 33 kV metering point. The feeders of 33 kV metering point are further connected to step up transformer at substation and subsequently to bulk meter at high voltage side of receiving substation. The bulk meters are connected to machines of the project activity and the machines commissioned by the other project developers. The subprojects included in the project activity are connected to following four substations where the bulk meters are located:

S. No.	Name of Customer	Capacity (MW)	Enercon Sub-station	State Utility Sub-station
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	8.8	Enercon Sub-station at Imangala	Aiamangala, 66/11 kV KPTCL sub-station
2	Steelfab Offshore	0.8	GIM-II Sub-station at Gownalli	Hiriyur, 220/66/11 kV KPTCL sub-station
3	Dewanchand Ramsaran	0.8		
4	Elpro International	0.8		
5	Gautam Ladkat	0.8		
6	Sameer Ladkat	0.8		
7	Panama Business Centre	1.6		
8	Balasahab Ladkat	1.6		
9	Panama Infrastructure	1.6		
10	MK Agrotech Private Ltd	1.6	EP-II Sub-station at Nandana Hosuru	Ramagiri, 66/11 kV KPTCL sub-station
11	Srinivas Sirigeri	0.8		
12	Dempo Industries	0.8		
13	Power Link Systems Pvt Ltd	0.8		
14	Desai Brothers	0.8	Gadag Sub-station at Banikoppa	Dambal, 110/33/11 kV KPTCL sub-station.
15	Siddganga Oil Extraction	1.6		
16	Abhilash Garments	0.8		
17	Prasad Global Solution	1.6		

18	Gangadhar Narsingdas Agarwal	40		
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Therefore in order to determine the net electricity supplied to the grid by the project at high voltage side of receiving substation, the state utility applies the transmission loss to the meter reading recorded at the 33 KV metering point. The transmission loss calculated by the state utility is endorsed / confirmed jointly by the representatives of Enercon and the state utility. The transmission loss applied to the project activity by the state utility is reflected in the JMR (Form B) for each sub project recorded at 33kV metering point. Net electricity supplied to the grid is calculated by applying transmission loss to the meter readings taken at 33 kV metering location for all the sub projects included in the project activity.

The procedure for calculation of transmission loss as given in the PPA is set-out below:

$$Z = \frac{(X1+X2+X3...+Xn)-Y}{(X1+X2+X3...+Xn)} \times 100$$

The procedure for calculation of transmission loss as given in the PPA is set-out below:

$$Z = \frac{(X1+X2+X3...+Xn)-Y}{(X1+X2+X3...+Xn)} \times 100$$

Z = Percentage transmission loss for export incurred in transmission line between the meters located at 33 kV metering point (including the machines of the project activity and other project developers) and the meters located at high voltage side (bulk meter: main and check) of receiving sub-station.

Summation of meter readings at 33 kV metering points for all the project developers connected to receiving substation (including the machines of the project activity and other project developers)=
(X1 + X2 + X3 ... + Xn)

Xi = Energy Export Reading (Xi) noted at energy meter installed at 33kV metering point where i vary from 1 to n which represents the meters connected to project activity and other project developers. X1, X2, X3,...Xn are the meters that are installed at 33kV metering point (including the machines of the project activity and other project developers) and further connected to the receiving substation by internally connected lines.

Y = Energy Export Reading at bulk meter installed at high voltage side of transformer of the receiving sub-station

The Export Reading Xi is adjusted for transmission loss that is determined by the state utility and is applied directly to the JMR (Form B) for each sub project included in the project activity taken at 33 kV metering point. This can be checked from the JMR signed jointly by the representatives of Enercon and the state utility.

Transmission Loss in Export (TE) = Transmission Loss (Z) * Energy Export at 33kV metering point (EGExport)

Empirical Formula for Energy Export after adjustment of transmission loss (Equation 1)

Net Energy Export for each of the sub project after adjustment of transmission loss = **EGexport – Transmission Loss (TE)**

The transmission loss in export is generally less than 5%. However in case of Energy Import, the state utility conservatively applies adjustment of 15% to the import values noted at 33 kV metering point.

Transmission Loss in Import (TI) = 15% * Energy Import at 33kV metering point (EGImport)

Empirical Formula for Energy Import after adjustment of transmission loss (Equation 2)

$$\begin{aligned}\text{Net Energy Import for each of the sub project after adjustment of transmission loss} &= \text{EGimport} \\ &+ 15\% * \text{EGimport} \\ &= 115\% * \text{EGimport}\end{aligned}$$

Therefore Energy Supplied to Grid for each of the sub project after adjustment of transmission loss is difference of equation 1 and 2 as given in the JMR (Form B) signed jointly by Enercon and the state utility.

$$\text{EGy (Sub project)} = \text{EGexport} - 115\% * \text{EGimport} - \text{Transmission Loss (TE)}$$

The Joint meter reading for each of the sub project noted at 33 KV metering location contains the following data:-

1. Electricity Export (EGexport)
2. Electricity Import (EGimport)
3. Transmission Loss (TE) between 33 kV metering point and high voltage side of receiving substation
4. Net Electricity supplied to the Grid [EGexport-115%*EGimport-TE]

JMR is signed by the representatives of Enercon and the state utility. The meter readings (both export and import), transmission loss and net electricity supplied to the grid are recorded in the JMR (33 KV metering point). Hence all these values are reproduced from the JMR for calculation of emission reductions.

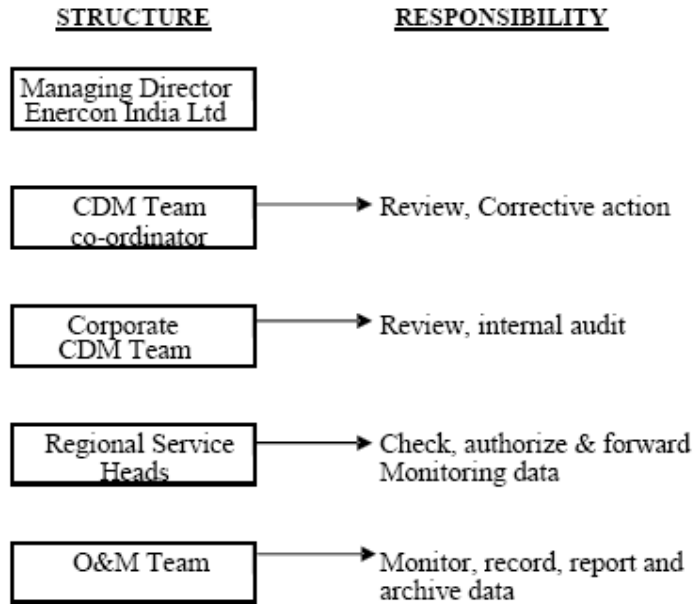
In addition to the JMR (Form B) at 33kV metering location for each of the sub project included in the project activity, the following documents are also be provided to the DoE for verification:

1. JMR (Form B) at high voltage side of receiving sub-station (bulk meters: main and check).
2. Transmission loss calculation endorsed / confirmed jointly by the representatives of Enercon and the state utility.

The net electricity supplied to the grid can be cross checked from the invoices for each of the sub project raised on the state utility for supply of net electricity supplied to the grid.

Net electricity Supplied to Grid for the project activity is summation of Net electricity Supplied to Grid for each of the sub project included in the project activity.

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



The detailed monitoring plan is described below:

- **Metering:** Electricity supplied to the grid is metered jointly by state utility and Enercon through dedicated main and check meters at 33 kV metering point for each of the sub project included in the project activity.

In addition to this there are main and check meters (Bulk meters) at high voltage side of receiving sub-station covering sub projects of the project activity and machines of other project developers. There are four receiving stations to which the sub projects included in the project activity are connected.

The schematic diagram shows location of meters for the project activity is attached as Appendix 1.

- **Metering Equipment:** Metering system for the project activity consists of main and check meters at 33kV metering point for each of the sub project included in the project activity and set(s) of main and check meters at high voltage side of receiving substation. All the meters are two-way trivector meters capable of recording import and export of electricity. The meters installed are capable of recording and storing half hourly readings of the electrical parameters for a minimum period of 35 days with digital output.
- **Meter Readings:** The electricity export and import to the grid is recorded by taking a Joint Meter Reading (JMR) in the presence of Officials from state Utility and Enercon (India) Limited at 33kV metering point for each of the sub project included in the project activity. The Joint meter reading contains the value of energy imported, exported, transmission loss and the net electricity exported to the grid during the recording period. This Joint meter reading is certified by the Executive engineer of the state utility and by Enercon Officials. These certified readings are then used by the state utility to prepare the tariff invoices. Thus net electricity supplied to the grid for each of the sub project included in the project activity can be crosschecked with the value mentioned in the invoices raised on the state utility by each of the sub project included in the project activity.
- **Inspection of Energy Meters:** All the main and check energy meters and all associated instruments, transformers installed at the Project are of 0.2% accuracy class. Each 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:** All the main and check meters are tested (and calibrated if found necessary) for accuracy on annual basis with reference to a portable standard meter. The portable standard meter is owned by KPTCL. The main and check meters shall be deemed to be working satisfactorily if the errors are within specifications for meters of 0.2 accuracy class. The consumption registered by the main meters alone hold good for the purpose of metering electricity supplied to the grid as long as the error in the main meters is within the permissible limits. All the meters are be tested / calibrated for accuracy annually.

If during the meter test checking,

- The main meter is found to be within the permissible limit of error and the corresponding check meter is beyond the permissible limits, then the meter reading will be as per the main meter as usual. The check meter shall, however, be calibrated immediately.
- The main meter is found to be beyond permissible limits of error, but the corresponding check meter is found to be within permissible of error, then the meter reading for the month up to the date and time of such test shall be as per the check meter. There will be a revision in the meter reading for the period from the previous calibration test up to the current test based on the readings of the check meter. The main meter shall be calibrated immediately and meter reading for the period thereafter till the next monthly meter reading shall be as per the calibrated main meter.
- Both the main meters and the corresponding check meters are found to be beyond the permissible limits of error, both the main meters shall be immediately calibrated and the correction applied to the reading registered by the main 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 main meter.
- If during any of the monthly meter readings, the variation between the main meter and the check meter is more than the permissible limit for meters of 0.2% accuracy class, all the meters shall be re-tested and calibrated immediately.



The schematic showing the location of meters for the project activity is given in Appendix 1:

Training and maintenance:

Training on the machine is an essential pre-requisite, to ensure necessary safety of man and machine. Further, in order to maximize the output from the Wind Energy Converters (WECs), it is extremely essential, that the engineers and technicians understand the machines and keep them in good health. In order to ensure, that Enercon's service staff is deft at handling technical snags on top of the turbine, the necessity of ensuring that they are capable of climbing the tower with absolute ease and comfort has been established. The Enercon Training Academy provides need-based training to meet the training requirements of Enercon projects. The training is contemporary, which results in imparting focused knowledge leading to value addition to the attitude and skills of all trainees. This ultimately leads to creativity in problem solving.

Calibration Details

The metering equipments were inspected & calibrated by state utility. Calibration details for the all the main and backup meters are provided below.

Project Owner	Meter Type	Meter Sr. no.	Accuracy class	Make	Calibration prior to monitoring period	Latest Calibration done	Due Calibration on
Enercon Wind Farms (Chitradurga) Ltd	Main Meter	5463842	0.2	L&T	31/03/2006	02/09/2010	01/09/2011
	Check Meter	5463855	0.2	L&T	31/03/2006	02/09/2010	01/09/2011
Steelfab Offshore	Main Meter	5437939	0.2	L&T	1/9/2008	27/02/2010	27/02/2011
	Check Meter	5437956	0.2	L&T	1/9/2008	27/02/2010	27/02/2011
Dewanchand Ramsaran	Main Meter	5389379	0.2	L&T	1/9/2008	27/02/2010	27/02/2011
	Check Meter	5389378	0.2	L&T	1/9/2008	27/02/2010	27/02/2011
Elpro International	Main Meter	5436130	0.2	L&T	21/07/2009	25/09/2010	25/09/2011
	Check Meter	5436135	0.2	L&T	21/07/2009	25/09/2010	25/09/2011
Gautam Ladkat	Main Meter	5389971	0.2	L&T	1/9/2008	27/02/2010	27/02/2011



	Check Meter	5389974	0.2	L&T	1/9/2008	27/02/2010	27/02/2011
Sameer Ladkat	Main Meter	5436122	0.2	L&T	24/07/2009	29/09/2010	29/09/2011
	Check Meter	5436121	0.2	L&T	24/07/2009	29/09/2010	29/09/2011
Panama Business Centre	Main Meter	5390229	0.2	L&T	27/02/2010	30/08/2010	30/08/2011
	Check Meter	5390230	0.2	L&T	27/02/2010	30/08/2010	30/08/2011
Balasahab Ladkat	Main Meter	05390421	0.2	L&T	26/12/2009	19/2/2010	19/2/2011
	Check Meter	05341085	0.2	L&T	26/12/2009	19/2/2010	19/2/2011
Panama Infrastructure	Main Meter	5389981	0.2	L&T	24/07/2009	28/09/2010	29/09/2011
	Check Meter	5389986	0.2	L&T	24/07/2009	28/09/2010	28/09/2011
MK Agrotech Private Ltd	Main Meter	5389904	0.2	L&T	21/07/2009	24/09/2010	24/09/2011
	Check Meter	5436140	0.2	L&T	21/07/2009	24/09/2010	24/09/2011
Srinivas Sirigeri	Main Meter	5463840	0.2	L&T	24/12/2009	16/06/2010	16/06/2011
	Check Meter	5462963	0.2	L&T	24/12/2009	16/06/2010	16/06/2011
Power Link System Private Limite	Main Meter	5437934	0.2	L&T	21/03/2006	16/06/2010	16/06/2011
	Check Meter	5462964	0.2	L&T	21/03/2006	16/06/2010	16/06/2011
Dempo Industries	Main Meter	5463847	0.2	L&T	24/12/2009	16/06/2010	16/06/2011
	Check Meter	5463838	0.2	L&T	24/12/2009	16/06/2010	16/06/2011
Desai Brothers	Main Meter	5437948	0.2	L&T	24/12/2009	16/06/2010	16/06/2011
	Check Meter	5463853	0.2	L&T	24/12/2009	16/06/2010	16/06/2011



Abhilash Garments & Estates (P) Ltd:	Main Meter	5463841	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
	Check Meter	6760772	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
Prasad Global Solutions	Main Meter	6607372	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
	Check Meter	5389381	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
Prasad Global Solutions	Main Meter	6675385	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
	Check Meter	6675392	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
Siddaganga Oil Extractions Ltd	Main Meter	5463849	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
	Check Meter	6605127	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
Gangadhar Narsingdas Agarwal	Main Meter	6675402	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
	Check Meter	6760764	0.2	L&T	5/2/2007	3/6/2010	3/6/2011
Gangadhar Narsingdas Agarwal	Main Meter	6675414	0.2	L&T	6/2/2007	3/6/2010	3/6/2011
	Check Meter	6675384	0.2	L&T	6/2/2007	3/6/2010	3/6/2011

The details of uploading sub-station for each WEC is provided below::

S. No.	Name of Customer	M/C Model	Type of M/C	No. of M/C	Capacity (MW)	Sub-stion
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	E-48	0.8	11	8.8	Aiamangala, 66/11 kV KPTCL sub-station
2	Steelfab Offshore	E-48	0.8	1	0.8	Hiriyur, 220/66/11 kV KPTCL sub-station
3	Dewanchand Ramsaran	E-48	0.8	1	0.8	
4	Elpro International	E-48	0.8	1	0.8	
5	Gautam Ladkat	E-48	0.8	1	0.8	
6	Sameer Ladkat	E-48	0.8	1	0.8	
7	Panama Business Centre	E-48	0.8	2	1.6	
8	Balasahab Ladkat	E-48	0.8	2	1.6	



9	Panama Infrastructure	E-48	0.8	2	1.6	Ramagiri, 66/11 kV KPTCL sub-station
10	MK Agrotech Private Ltd	E-48	0.8	2	1.6	
11	Srinivas Sirigeri	E-48	0.8	1	0.8	
12	Dempo Industries	E-48	0.8	1	0.8	
13	Power Link Systems Pvt Ltd	E-48	0.8	1	0.8	
14	Desai Brothers	E-48	0.8	1	0.8	Dambal, 110/33/11 kV KPTCL sub-station.
15	Siddganga Oil Extraction	E-48	0.8	2	1.6	
16	Abhilash Garments	E-48	0.8	1	0.8	
17	Prasad Global Solution	E-48	0.8	1	0.8	
18	Prasad Global Solution	E-48	0.8	1	0.8	
19	Gangadhar Narsingdas Agarwal	E-48	0.8	3	2.4	
20	Gangadhar Narsingdas Agarwal	E-48	0.8	2	1.6	

Calibration detail of the main and check meter at the substation are provided below:

S. No	Name of Substation	Meter RR. No	Main meter	Check meter	Calibration Test	
					2009	2010
1	Enercon Sub-station at Imangala	EWFA-01	05463842	05463855	13.08.2009	02.09.2010
2	EP-II Sub-station at Nandana Hosuru	EP2-01	02048061	02048064	08.06.2009	13.01.2010
		EP2-02	02048052	02048043		
3	GIM-II Sub-station at Gownalli	ELP-17	05271046	05389972	04.06.2009	23.04.2010
		ELP-41	05389983	05389985		
4	Gadag Sub-station at Banikoppa	Line I (GDG/TL&SS/WF/ELB/1 10LINE-I/39)	06607369	06606801	30.03.2009	25.05.2010
		Line II (GDG/TL&SS/WF/ELB/1 10LINE-II/39)	06605135	06607373		

The calibration frequency is not in conformance with the frequency mentioned in the registered PDD. However the calibration results do not show any error in the delayed calibration reports. Therefore as per the “Guidelines for assessing compliance with the calibration frequency requirements”, EB 52, Annex 60, version 01, the maximum permissible error of meters shall be applied to the meter readings for the period from the scheduled date of calibration up to the latest calibration test. However conservatively, we have applied the maximum permissible error to entire first monitoring period from 18/03/2010 to 31/08/2010 for all the meters irrespective of whether the calibration is delayed or not.

Since the latest test certificate shows that meters are operating within their accuracy class 0.2%. In accordance with Annex 60, EB 52 we have applied a correction factor of +0.2% for imports & transmission losses and -0.2% for exports for the entire monitoring period

The line diagrams showing all relevant monitoring points are appendix 1.

**SECTION D. Data and parameters**

>>

D.1. Data and parameters determined at registration and not monitored during the monitoring period, including default values and factors

Data / Parameter:	$EF_{OM,y}$						
Data unit:	tCO ₂ e/MWh						
Description:	Operating Margin Emission Factor of Southern Regional Electricity Grid						
Source of data used:	“CO ₂ Baseline Database for Indian Power Sector Version 1.1” published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO ₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in						
Value(s):	<table border="1"> <tr> <td>2002 – 03</td><td>0.9970</td></tr> <tr> <td>2003 – 04</td><td>1.0094</td></tr> <tr> <td>2004 – 05</td><td>1.0038</td></tr> </table>	2002 – 03	0.9970	2003 – 04	1.0094	2004 – 05	1.0038
2002 – 03	0.9970						
2003 – 04	1.0094						
2004 – 05	1.0038						
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions						
Additional comment:	None						

Data / Parameter:	$EF_{BM,y}$		
Data unit:	tCO ₂ e/MWh		
Description:	Build Margin Emission Factor of Southern Regional Electricity Grid		
Source of data used:	“CO ₂ Baseline Database for Indian Power Sector Version 1.1” published by the Central Electricity Authority, Ministry of Power, Government of India. The “CO ₂ Baseline Database for Indian Power Sector” is available at www.cea.nic.in		
Value(s):	<table border="1"> <tr> <td>2004 – 05</td><td>0.718</td></tr> </table>	2004 – 05	0.718
2004 – 05	0.718		
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions		
Additional comment:	None		

Data / Parameter:	$EF_{CM,y}$
Data unit:	tCO ₂ e/MWh
Description:	Combined Margin Emission Factor of Southern Regional Electricity Grid (year 2004-05)
Source of data used:	“CO ₂ Baseline Database for Indian Power Sector Version 1.1” published by the Central Electricity Authority, Ministry of Power, Government of India.



	The “CO2 Baseline Database for Indian Power Sector” is available at www.cea.nic.in
Value(s):	0.93204
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions
Additional comment:	None

Emission factor (EFy) of the grid is calculated as a combined margin (CM) Combined margin (CM), calculated as the weighted average of the operating margin (OM) and build margin (BM) factor. In case of wind power projects default weights of 0.75 for EF_{OM} and 0.25 for EF_{BM} are applicable as per ACM0002.

$$EF_y = w_{OM} * EF_{OM,y} + w_{BM} * EF_{BM,y}$$

$$= 0.93204 \text{ tCO}_2\text{e/MWh}$$

D.2. Data and parameters monitored

Data / Parameter:	EGy
Data unit:	MWh (Mega-watt hour)
Description:	Net electricity supplied to the grid by the Project
Measured /Calculated /Default:	Calculated by subtracting import & transmission loss value from Export value. Refer section C of the MR.
Source of data:	Electricity supplied to the grid as per Joint Meter Readings (Form B) taken at 33 kV metering point for each of the sub project included in the project activity.
Value(s) of monitored parameter:	30,164.633 MWh (for detail refer appendix 2)
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Calculated as per formulas better described under section C.
Measuring/ Reading/ Recording frequency:	Monthly
Calculation method (if applicable):	Monitoring: All the meters are two-way trivector meters capable of recording import and export of electricity and provide output in the form of net electricity supplied to the grid. The procedures for metering and meter reading is as per the provisions of the power purchase agreement except or otherwise explicitly stated in the monitoring plan. Metering system for the project activity consists of dedicated main and check meters for each of the sub project owner included in



the project activity at 33 kV metering location.

In addition to this Joint meter readings are also noted at main and check meters (bulk meters) located at the substations. The subprojects included in the project activity are connected to following four substations:

S. No.	Name of Customer	Capacity (MW)	Enercon Sub-station
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	8.8	Enercon Sub-station at Imangala
2	Steelfab Offshore	0.8	GIM-II Sub-station at Gownalli
3	Dewanchand Ramsaran	0.8	
4	Elpro International	0.8	
5	Gautam Ladkat	0.8	
6	Sameer Ladkat	0.8	
7	Panama Business Centre	1.6	
8	Balasahab Ladkat	1.6	
9	Panama Infrastructure	1.6	
10	MK Agrotech Private Ltd	1.6	
11	Srinivas Sirigeri	0.8	EP-II Sub-station at Nandana Hosuru
12	Dempo Industries	0.8	
13	Power Link Systems Pvt Ltd	0.8	
14	Desai Brothers	0.8	
15	Siddganga Oil Extraction	1.6	Gadag Sub-station at Banikoppa
16	Abhilash Garments	0.8	
17	Prasad Global Solution	1.6	
18	Gangadhar Narsingdas Agarwal	4.0	

The bulk meters are connected to the machines of the project activity and the machines commissioned by the other project developers. Therefore in order to determine the electricity supplied to the grid by the project activity at high voltage side of the substation, the state utility applies the transmission loss between 33 kV metering point and meter reading noted at high voltage side of the receiving substation to the meter reading recorded at the 33 KV metering point. The transmission loss calculated by the state utility is endorsed / confirmed jointly by the representatives of Enercon and the state utility. The transmission loss applied to the project activity by the state utility is reflected in the JMR (Form B) recorded at 33kV metering point.

Frequency of recording data: Monthly

Recording: The values of electricity supplied to the grid are sourced from JMR for the sub projects at 33 kV metering point.



	Responsibility: Joint responsibility of Enercon and state utility. Refer section C for an illustration of the provisions for measurement methods.
QA/QC procedures applied:	Refer section C for an illustration of the provisions for QA/QC procedures.

Data / Parameter:	EGexport
Data unit:	MWh (Mega-watt hour)
Description:	Electricity Export recorded at meters (main and check meters). All the subprojects included in the project activity have dedicated main and check meters at 33 kV metering point.
Measured /Calculated /Default:	Measured at Main & Check Meters
Source of data:	Electricity Export recorded at meters (main and check meters). All the subprojects included in the project activity have dedicated main and check meters at 33 kV metering point.
Value(s) of monitored parameter:	30,565.506 MWh after applying error corrections
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Accuracy Class-0.2 Serial Number of Main Meter: Refer section C of the MR Serial Number of Check Meter: Refer section C of the MR Calibration Frequency: Annually Date of Last Calibration: Refer section C of the MR Validity of Last Calibration: Refer section C of the MR
Measuring/ Reading/ Recording frequency:	Monthly
Calculation method (if applicable):	Monitoring: Electricity export to the grid is recorded by the meters (main and check meters) at 33kV point. Refer section C & D.2 for an illustration of the provisions for QA/QC procedures. Frequency of recording data: Monthly Recording: The values of electricity exports to the grid are sourced from JMR for the sub projects at 33 kV metering point. Responsibility: Joint responsibility of Enercon and state utility
QA/QC procedures applied:	Refer section C for an illustration of the provisions for QA/QC procedures.

Data / Parameter:	EGimport
Data unit:	MWh (Mega-watt hour)
Description:	Electricity Import recorded at the meters (main and check meters). All the subprojects included in the project activity have dedicated main and check meters at 33 kV metering point.
Measured /Calculated /Default:	Measured at Main & Check Meters



Source of data:	Electricity import from the grid as per joint meter reading for each of the sub project taken at 33kV metering point.
Value(s) of monitored parameter:	47.083 MWh (115% * EG _{import}) after applying error corrections
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Accuracy Class-0.2 Serial Number of Main Meter: Refer section C of the MR Serial Number of Check Meter: Refer section C of the MR Calibration Frequency: Annually Date of Last Calibration: Refer section C of the MR Validity of Last Calibration: Refer section C of the MR
Measuring/ Reading/ Recording frequency:	Monthly
Calculation method (if applicable):	Monitoring: Electricity import from the grid is recorded by meters (main and check meters) at 33kV metering point. Refer section C & D.2 for an illustration of the provisions for measurement methods. Frequency of recording data: Monthly Recording: The values of electricity import to the grid are sourced from JMR for the sub projects at 33 kV metering point. Responsibility: Joint responsibility of Enercon and state utility
QA/QC procedures applied:	Refer section C for an illustration of the provisions for QA/QC procedures.

Data / Parameter:	T_E
Data unit:	MWh (Mega-watt hour)
Description:	Transmission loss for export between the metering location at 33 kV metering point and the high voltage side of the substation to which the subproject is connected.
Measured /Calculated /Default:	Calculated as per the procedure mentioned in the PPA. Refer section C of the MR.
Source of data:	Transmission Loss for export is sourced from the joint meter reading (Form B) taken at 33kV metering point for all the sub projects included in the project activity.
Value(s) of monitored parameter:	353.790 MWh after applying error corrections
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emissions
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Calculated as per formulas better described under section C.
Measuring/ Reading/	Monthly



Recording frequency:	
Calculation method (if applicable):	<p>Monitoring: Transmission loss between metering location at 33 kV and the metering location at receiving substation is applied to the meter reading taken at meters connected at 33 KV point for the project activity.</p> <p>The Substation is connected to the machines of the project activity and the machines commissioned by the other project owners. Therefore transmission loss is applied by the state utility as reflected in the JMR (Form B) taken at 33kV point for all the sub projects included in the project activity. The JMR is signed by the representatives of Enercon and the state utility. Refer section C of MR.</p> <p>Frequency of recording data: Monthly</p> <p>Recording: The value of transmission loss is sourced from JMR for all the sub projects at 33 kV metering point.</p> <p>Responsibility: Joint responsibility of Enercon and state utility</p>
QA/QC procedures applied:	Refer section C for an illustration of the provisions for QA/QC procedures.

The data is stored in hard format and soft format by PP (Enercon) at the project site office. Joint meter reading is taken in the presence of the persons representing Enercon [Operation and Maintenance Contractor] and the state utility. The archive will be kept for the period up to two years after the completion of the crediting period.

SECTION E. Emission reductions calculation

E.1. Baseline emissions calculation

>>

The baseline is the kWh produced by the renewable generating unit multiplied by an emission coefficient (measured in kg CO₂e/kWh) calculated in a transparent and conservative manner as the weighted average emissions (in kg CO₂e/kWh) as described in registered PDD.

$$BE_y = EG_y * EF_y$$

Where,

BE is baseline emissions in year y, tCO₂e

EG_y is the net electricity supplied to the grid in year y and is applied directly from JMR certified by state utility. This value can also be cross checked from the invoice.

EF_y is the CO₂ emission factor of the grid (932.04 tCO₂e/GWh fixed ex-ante). Refer Appendix 3 for detail.

Emission reduction calculation for the period 01/04/2010 to 31/08/2010:

$$\text{Emission Reductions (ER)} = 30,164.633^2 \text{ (MWh)} * 932.04 \text{ (tCO}_2\text{/GWh)} / 10^6$$

² The project was registered on 18th March 2010. Joint Meter Reading (JMR) is taken 1st of every month and invoices are also prepared monthly. Therefore, the generation for the period 18th March 2010 to 31st March 2010 is forgone. The generation is taken for the period of 1/04/2010 to 31/08/2010 for the first monitoring period.



$$= 28,114 \text{ tCO}_2$$

E.2. Project emissions calculation

>>

The project activity is a renewable energy project which generates electricity using wind power. Hence, there are no project emissions.

E.3. Leakage calculation

>>

No leakage is considered from the project activity as per approved methodology ACM0002.

E.4. Emission reductions calculation / table

>>

The total emission reductions achieved during the monitoring period is **28,114 tCO₂**. The detailed calculation is provided in appendix 2.

Total baseline emissions: 28,114 tCO₂

Total project emissions: Zero

Total leakage: Zero

$$\begin{aligned} \text{Total Emission reductions, ER} &= \text{BE}_y - \text{PE}_y \\ &= 28,114 \text{ tCO}_2 \end{aligned}$$

E.5. Comparison of actual emission reductions with estimates in the CDM-PDD

>>

Item	Values applied in ex-ante calculation of the registered CDM-PDD	Actual values reached during the monitoring period
Emission reductions (tCO₂e)	29,913 (166 days equivalent of annually 65,774 emission reductions estimated in the registered PDD)	28,114

E.6. Remarks on difference from estimated value in the PDD

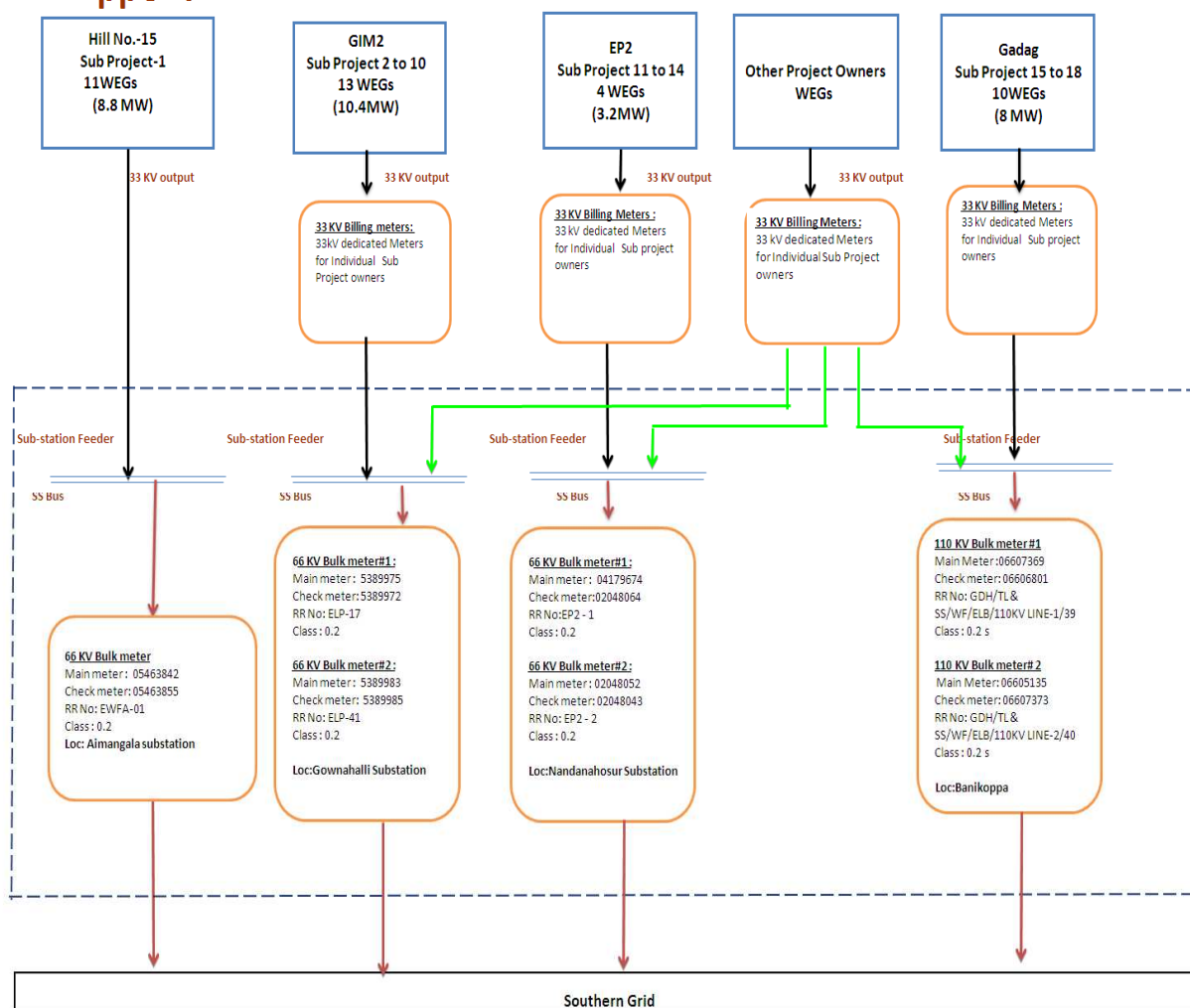
>

There is very minor change of 6.02% in the expected and annual emission reductions. The registered PDD also captures the change in PLF to the extent of +/-10% and therefore the change of 2.58% in PLF is within the range of sensitivity mentioned in the registered PDD.



Appendix 1: Line Diagram Showing Relevant Metering Points

Appendix 1





Appendix 2: Net Electricity Exported to Grid (EGy)

S No.	Name of Customer	No. of M/C	Month	Energy Exported (EGexport)	Energy Imported (115%*E Gimport)	Transmission loss (TE)	Net Energy (EGy)
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	11	Apr-10	598,800	5,520	-	593,280
2	Panama Business Centre	2		93,360	690	2,220	90,450
3	Balasahab Ladkat	2		106,320	828	2,528	102,964
4	Elpro International	1		59,460	690	1,414	57,356
5	Gautam Ladkat	1		44,280	414	1,053	42,813
6	Panama Infrastructure	2		81,840	690	1,946	79,204
7	Sameer Ladkat	1		46,800	552	1,113	45,135
8	Steelfab Offshore	1		59,100	483	1,405	57,212
9	MK Agrotech Private Ltd	2		133,200	690	3,167	129,343
10	Srinivas Sirigeri	1		38,640	552	650	37,438
11	Dempo Industries	1		39,960	552	673	38,735
12	Desai Brothers	1		54,360	13,869	915	39,576
13	Dewanchand Ramsaran	1		61,620	483	1,465	59,672
14	Abhilash Garments & Estates (P) Ltd	1		60240	690	1,405	58,145
15	Prasad Global Solutions	1		58980	552	1,376	57,052
	Prasad Global Solutions	1		57240	621	1,335	55,284
16	Gangadhar Narsingdas Agarwal	3		175650	863	4,097	170,691
	Gangadhar Narsingdas Agarwal	2		133440	828	3,113	129,499
17	Siddaganga Oil Extractions Ltd.	2		151080	552	3,524	147,004
18	Power Link System Private Limited	1		41100	552	692	39,856
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	11	May-10	1,919,400	2,760	-	1,916,640
2	Panama Business Centre	2		194,040	276	2,833	190,931



3	Balasaheb Ladkat	2		213,360	276	3,115	209,969
4	Elpro International	1		122,340	276	1,786	120,278
5	Gautam Ladkat	1		106,200	207	1,551	104,442
6	Panama Infrastructure	2		116,880	414	1,706	114,760
7	Sameer Ladkat	1		83,820	276	1,224	82,320
8	Steelfab Offshore	1		101,580	207	1,483	99,890
9	MK Agrotech Private Ltd	2		276,000	414	4,030	271,556
10	Srinivas Sirigeri	1		94,620	345	1,107	93,168
11	Dempo Industries	1		100,020	276	1,170	98,574
12	Desai Brothers	1		111,300	414	1,302	109,584
13	Dewanchand Ramsaran	1		97,500	207	1,424	95,869
14	Abhilash Garments & Estates (P) Ltd	1		121,380	759	3,199	117,422
15	Prasad Global Solutions	1		125,820	345	3,316	122,159
	Prasad Global Solutions	1		117,960	345	3,109	114,506
16	Gangadhar Narsingdas Agarwal	3		419,550	518	11,058	407,975
	Gangadhar Narsingdas Agarwal	2		269,280	552	7,098	261,630
17	Siddaganga Oil Extractions Ltd.	2		292,200	552	7,702	283,946
18	Power Link System Private Limited	1		97,320	276	1,139	95,905
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	11		2,582,400	690	-	2,581,710
2	Panama Business Centre	2		344,160	138	3,462	340,560
3	Balasaheb Ladkat	2		355,200	138	3,573	351,489
4	Elpro International	1	Jun-10	182,640	138	1,837	180,665
5	Gautam Ladkat	1		190,680	69	1,918	188,693
6	Panama Infrastructure	2		227,880	138	2,292	225,450
7	Sameer Ladkat	1		146,880	69	1,478	145,333



8	Steelfab Offshore	1		171,540	138	1,726	169,676
9	MK Agrotech Private Ltd	2		392,280	138	3,946	388,196
10	Srinivas Sirigeri	1		157,680	207	1,594	155,879
11	Dempo Industries	1		172,260	138	1,742	170,380
12	Desai Brothers	1		192,780	69	1,949	190,762
13	Dewachand Ramsaran	1		168,300	138	1,693	166,469
14	Abhilash Garments & Estates (P) Ltd	1		182,940	207	4,369	178,364
15	Prasad Global Solutions	1		167,100	69	3,991	163,040
	Prasad Global Solutions	1		157,500	69	3,762	153,669
16	Gangadhar Narsingdas Agarwal	3		542,100	173	12,947	528,981
	Gangadhar Narsingdas Agarwal	2		346,800	138	8,283	338,379
17	Siddaganga Oil Extractions Ltd.	2		359,040	138	8,575	350,327
18	Power Link System Private Limited	1		165,900	138	1,677	164,085
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	11	Jul-10	3,145,800	-	-	3,145,800
2	Panama Business Centre	2		419,520	-	6,423	413,097
3	Balasaheb Ladkat	2		434,040	-	6,645	427,395
4	Elpro International	1		199,740	69	3,058	196,613
5	Gautam Ladkat	1		238,620	69	3,653	234,898
6	Panama Infrastructure	2		286,800	-	4,391	282,409
7	Sameer Ladkat	1		178,620	-	2,735	175,885
8	Steelfab Offshore	1		200,400	-	3,068	197,332
9	MK Agrotech Private Ltd	2		402,840	-	6,167	396,673
10	Srinivas Sirigeri	1		194,220	138	1,851	192,231
11	Dempo Industries	1		211,620	69	2,017	209,534
12	Desai Brothers	1		234,420	276	2,234	231,910



13	Dewanchand Ramsaran	1	Aug-10	196,440	-	3,007	193,433
14	Abhilash Garments & Estates (P) Ltd	1		258,720	69	6,660	251,991
15	Prasad Global Solutions	1		224,040	-	5,767	218,273
	Prasad Global Solutions	1		194,280	69	5,001	189,210
16	Gangadhar Narsingdas Agarwal	3		647,250	173	16,662	630,416
	Gangadhar Narsingdas Agarwal	2		480,240	-	12,363	467,877
17	Siddaganga Oil Extractions Ltd.	2		485,400	-	12,496	472,904
18	Power Link System Private Limited	1		196,860	69	1,876	194,915
1	Enercon Wind Farms (Chitradurga) Pvt Ltd	11		2,579,400	690	-	2,578,710
2	Panama Business Centre	2		382,320	-	4,928	377,392
3	Balasahab Ladkat	2		377,880	138	4,871	372,871
4	Elpro International	1		184,260	-	2,375	181,885
5	Gautam Ladkat	1		203,460	69	2,623	200,768
6	Panama Infrastructure	2		244,080	138	3,146	240,796
7	Sameer Ladkat	1		157,680	69	2,032	155,579
8	Steelfab Offshore	1		185,880	69	2,396	183,415
9	MK Agrotech Private Ltd	2		355,920	138	4,588	351,194
10	Srinivas Sirigeri	1		158,280	138	1,244	156,898
11	Dempo Industries	1		178,260	138	1,401	176,721
12	Desai Brothers	1		213,840	69	1,681	212,090
13	Dewanchand Ramsaran	1		180,600	69	2,328	178,203
14	Abhilash Garments & Estates (P) Ltd	1		216,360	69	5,329	210,962
15	Prasad Global Solutions	1		187,500	138	4,618	182,744
	Prasad Global Solutions	1		163,800	69	4,035	159,696
16	Gangadhar Narsingdas Agarwal	3		566,850	-	13,962	552,888



	Gangadhar Narsingdas Agarwal	2		397,320	138	9,787	387,395
17	Siddaganga Oil Extractions Ltd.	2		407,880	138	10,047	397,695
18	Power Link System Private Limited	1		173,220	207	1,362	171,651
	Total			30,624,631	46,992	353,084	30,224,879
	Total (With Correction Factor)			30,565,506	47,083	353,790	30,164,633

History of the document

Version	Date	Nature of revision
01	EB 54, Annex 34 28 May 2010	Initial adoption.
Decision Class: Regulatory Document Type: Guideline, Form Business Function: Issuance		