MONITORING REPORT FORM (CDM-MR)
Version01 - in effect as of: 28/09/2010

CONTENTS

MONITORING REPORT
Version 1.0; Date: 20/09/2011

Title: "20 MW ENERCON WIND FARMS (SAI) PVT. LIMITED IN MAHARASHTRA"
Project Reference No: 3854
Monitoring Period - FROM 14/12/2010 TO 31/07/2011 (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, fina ce, construction, operation and maintenance of 20 MW Wind Electricity Generation Project ("Project") in the state of Maharashtra to provide reliable, renewable power to the NEWNE electricity grid of India.The Project will lead to reduction of GHG emissions as it will displace electri ity from fossil fuel based electricity generation plants.

The project is owned by Enercon wind farms (SAI) Pvt. ited. Enercon (India) Limited ("Enercon") is the operation and maintenance contractor for the Project. The genera d electricity is supplied to Maharashtra State Electricity Distribution Company Limited ("MSEDCL") un r a long-term power purchase agreement (PPA). The project activity involves installation of 25 number of E-48 machines (each having capacity of 800 kW) in Ahmed Nagar in the state of Maharashtra.

The first machine under the project activity was commissioned on 28 February, 2007 and last machine was commissioned on 17 March, 2009. The expected operational lifetime of the project is for 20 years. The total emission reductions achieved under this monitoring period (14 December, 2010 to 31 July, 2011) is 20, 188 tCO_2.

A.2. Project Participants

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Enercon (India) Limited

A.3. Location of the project activity:

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The site is located at a distance of 120 km from Pune road. The nearest railway station is at Pune. Project activity is installed at Panchpatta site of Ah ednagar District in the state of Maharashtra. The details of the geo-coordinates of individual machines have been given below:

S. No	WEG Loc. No.	Latitude			Longitude		
		Deg.	Min.	Sec.	Deg.	Min.	Sec.
1.	523	19	37	35.2	73	47	3
2.	524	19	37	38.9	73	47	1.6
3.	525	19	37	42.9	73	47	0.4
4.	526	19	37	46.6	73	46	58.8
5.	527	19	37	50.6	73	46	58.6
6.	79	19	44	52.7	73	50	13.1
7.	529	19	37	58.1	73	46	58.6
8.	530	19	38	2.8	73	47	0.8
9.	504	19	36	27.4	73	47	19.7
10.	506	19	36	31.3	73	47	19.8
11.	507	19	36	37.6	73	47	19.4
12.	521	19	37	28	73	47	5.8
13.	510	19	36	47.9	73	47	19.6
14.	512	19	36	55.8	73	47	20
15.	513	19	36	59.7	73	47	19.4
16.	514	19	37	3.5	73	47	18.3
17.	35	19	39	37.4	73	48	51.7
18.	36	19	39	42.2	73	48	52.2
19.	37	19	39	46.9	73	48	52.7
20.	38	19	39	51.3	73	48	51.8
21.	39	19	39	55.7	73	48	50.9
22.	516	19	37	10.6	73	47	15.7
23.	517	19	37	13.8	73	47	13.5
24.	518	19	37	17.6	73	47	11.7
25.	519	19	37	20.7	73	47	9.1

A.4. Technical description of the project

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The Project activity involves 25 wind energy converters (WECs) of Enercon make (800 kW E-48) with internal electrical lines connecting the Project with al 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 ± 12.5%. The er salient features of the state-of-art – technology are:

- Gearless Construction - Rotor & Generator Mounted on same shaft eliminating th Gearbox.
- Variable speed function – has the speed range of 18 to 33 RPM thereby ensuring o timum 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 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 th 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 monit ring methodology applied to the project activity:

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Title: *"Consolidated baseline and monitoring methodology for Grid-connected electricity generation from renewable sources"*

Reference: Approved consolidated baseline methodology ACM0002 (Version 11, EB 52)

A.6. Registration date of the project activity:

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14/12/2010

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 14/12/2010 and length of crediting period is 10 years. The monitoring period for the project activity has been considered as 14 December, 2010 to 31st July, 2011.

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

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Organization:	Enercon (India) Limited
Street/P. O. Box:	A-9, Veera Industrial Estate, Veera Desai Road, Andheri West)
Building:	Enercon Tower
City:	Mumbai
State/Region:	Maharashtra
Postfix/ZIP:	400 053
Country:	India
Telephone:	+91-22-66924848
FAX:	+91-22-67040473
E-Mail:	yogesh.mehra@enerconindia.net
URL:	
Represented by:	
Title:	Managing Director
Salutation:	Mr.

Last Name:	Mehra
Middle Name:	
First Name:	Yogesh
Department:	
Mobile:	
Direct FAX:	
Direct tel:	
Personal E-Mail:	

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 28 February, 2007 and last machine was commissioned on 17 March, 2009. The project activity consists of 25 WEGs (800 kW) of Enercon make E-48 models. The commissioning date for all the machines included in the project activity is given in the table below:

S. NO.	WEG Location no.	Date of Commissioning
1	523	17 March, 2009
2	524	26 February, 2009
3	525	26 February, 2009
4	526	11 February, 2009
5	527	11 February, 2009
6	79	22 May, 2008
7	529	26 February, 2009
8	530	17 March, 2009
9	504	17 March, 2009
10	506	26 February, 2009
11	507	11 February, 2009
12	521	4 December, 2008
13	510	4 December, 2008
14	512	4 December, 2008
15	513	13 September, 2008
16	514	13 September, 2008
17	35	28 February, 2007
18	36	28 February, 2007
19	37	28 February, 2007
20	38	28 February, 2007
21	39	28 February, 2007
22	516	13 September, 2008
23	517	24 September, 2008
24	518	4 December, 2008
25	519	4 December, 2008

Enercon operation and maintenance activities are ISO 9 1:2000 certified and all the events are recorded at the project site. Referring to the data available, it can be inferred that there have not been any major special event for any machines that are incl ed in the project activity. As a part of regular maintenance, the machines are stopped for mechanical a d 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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Not Applicable

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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Not Applicable

SECTION C. Description of the monitoring system

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Approved monitoring methodology ACM0002/ Version 11, 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 grid emission factor, the monitoring of operating margin emission factor and build margin emission factor is not required.

The following monitoring procedure has been followed:

All the machines of project activity (EWF SPL 01 to 25) are connected to 33 KV feeders (feeder number F2, F3, F4 and F6) in addition to the 23 machines of the other customers, with a total capacity of 38.4 MW (48 WEGs) at Panchpatta location.

The following table has provided the details of the machines of the project activity along with the machines connected from other customers to the same feeders:

Feeder number	Total number of WEGs and Capacity connected to the Feeders	EWF SPL WEGs connected to the respective Feeders	Name of the Sub-station
F 2	**7 (5.6 MW)**	**7**	33/ 132 kV Panchpatta substation
F 3	**17 (13.6 MW)**	**12**	
F 4	**11 (8.8 MW)**	**5**	
F 6	**13 (10.4 MW)**	**1**	

There is one main and one check meter at each 33 kV feeder point for recording the electricity supplied to the grid. These feeders are further connected to the 100 MVA, 33/ 132 kV transformer to step the feeder voltage from 33 kV to 132 kV. The detailed diagram of all the WEGs of the project activity along with other WEGs have been shown in Appendix 1 below.

In order to determine the net electricity supplied to the grid by the project activity, the following apportionment procedure is followed:

The electricity generation by each wind turbine is calculated by the following two - step procedures:

a) The first recording is carried out at the controller panel of each machine. The monitoring of the controller panel readings of all these wind turbines is done through a common monitoring station as a part of the central monitoring system (CMS).

In line with the above, $EG_{gross,\ y}$ is the electricity generated from an individual wind turbine measured at its panel. The summation of the total electricity generated from the wind turbines of the project proponent recorded from the individual panel meter (in MWh) is denoted as:

$$\sum_{y=0}^{n} EG_{gross,\ y}$$

where, n = *number of WEGs of SAI connected at common MSEDCL meter*

The summation of the total electricity generated from the other wind turbines connected to the common MSEDCL meter at the sub-station with Sai turbines is denoted as (in MWh)

$$\sum_{y=0}^{m} EG_{gross,\ y}$$

where, m = number of WEGs of other customers connected at the common MSEDCL meter

b) The second metering is carried out at the grid interconnection point (sub-station), where the Joint Reading is taken on monthly basis in the presence of the representatives of the Company (Enercon) & the state electricity utility (MSEDCL). This Joint Reading is used for the apportionment of the amount of electricity supplied by the individual customer to the grid against which the utility makes the payment to each customer including the project proponent. The JMR gives both the "export" ($EG_{JMR, export}$) and "import" ($EG_{JMR, import}$) of the electricity to/ from the NEWNE grid based on the common MSEDCL meter readings.

Based on the above two, the apportioning of electricity generated from the various wind turbines connected to the MSEDCL meter is done as shown below. This apportioned value is then used by the project proponent to raise invoice to MSEDCL.

EG_{export}, the electricity exported to the grid by the project activity is calculated as f lows:

$$EG_{export} = \frac{EG_{JMR, export} \times \sum_{y=0}^{n} EG_{gross, y}}{\left(\sum_{y=0}^{n} EG_{gross, y} + \sum_{y=0}^{m} EG_{gross, y}\right)}$$

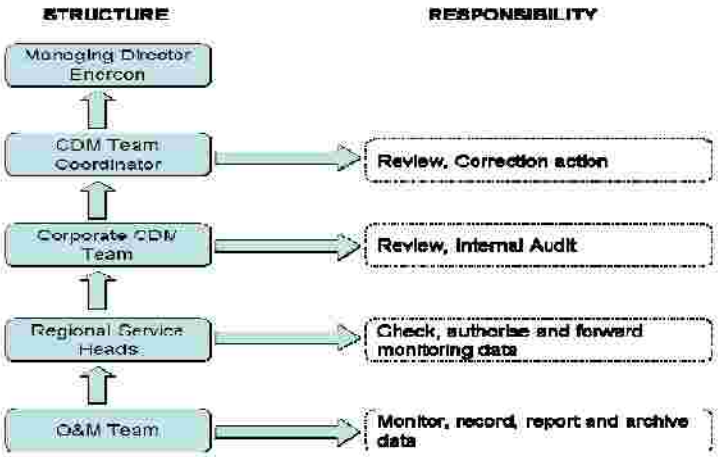
EG_{import}, the electricity drawn from the grid by the project act is calculated as follows:

$$EG_{import} = \frac{EG_{JMR, import} \times \sum_{y=0}^{n} EG_{gross, y}}{\left(\sum_{y=0}^{n} EG_{gross, y} + \sum_{y=0}^{m} EG_{gross, y}\right)}$$

Therefore, the net electricity supplied to the grid is calculated as follows:

EGy = EG export – EG import

The net electricity supplied to the grid can be sourced from the invoices raised on the state utility (i.e. Maharashtra State Electricity Distribution Co. Ltd. (M CL)) by each customer on monthly basis. This value can be further cross-checked by the cheques received by the customers from e State Utility. The Project is operated and managed by Enercon (India) Ltd. The operational and management structure implemented by Enercon is as follows:



Details of the monitoring equipments, QC/ QA procedures followed:

Metering Equipment: Metering system for the project activity consists of one main and one check meters of accuracy class of 0.2 at 33 kV metering poin of each feeder. All the meters are Tri-vector meters.

Meter Readings: The monthly meter readings (both main and check meters) are taken jointly by the parties each month. At the conclusion of each meter reading an appointed representative of MSEDCL and Enercon sign a Joint Reading Report as indicated by the main meter.

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: Main and check meters are tested for accuracy with refe ce to a portable standard meter. The portable standard meter is owned by MSEDCL. If during testing, both the Main and Check Meter are found within the permissible limit of or i.e. 0.2%, the energy computation will be as per the Main Meter. The consumption registered by the ain meters alone will hold good for the purpose of metering electricity supplied to the grid a g as the error in the main meters is within the permissible limits.

- The main meter readings are apportioned based upon the LCS meter readings (Panel reading) from the individual WTGs to compute net electricity supplied from in ividual WTGs. The LCS meter readings are archived electronically on continuo basis. Joint reading taken at MSEDCL substation is on monthly basis. Therefore, cumulative panel reading for each month is used for purpose of allocation of net electricity supplied to the grid from the project activity.

- The electricity generation value recorded at the LCS meter (panel reading) is cross verified by the energy calculated by inverting system installed in the WEGs. In case, there is any mismatch in the energy values recorded by the LCS meter and the energy values calculated by the inverting system, the machine will stop working and generate the error report.

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 e meter reading for the month up to the date and time of such test shall be as per the check m er. There will be a revision in the meter reading for the period from the previous calibration t t 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 eading 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 meters shall be immediately calibrated and the correction is applied to the reading registered by the main meter to arrive the correct reading of energy 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.

Training and maintenance:

In order to ensure that Enercon's staffs who are positioned to take care all the activities starting from project construction to operation and maintenance, Enercon Training Academy provides need based periodical training to meet the requirements of the project. The training is contemporary, which results in imparting focused knowledge leading to value addition to the attitude and skills of all the trainees. The training facility is located at Daman and is fully functional and equipped with qualified trainers, training equipments, classrooms and hostel facilities.

Calibration Details

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

Feeder No.	Meter Type	Meter Sr. no.	Accuracy class	Make	Calibration prior to monitoring period	Latest Calibration done	Calibration due on
F 2	Main Meter	4862979	0.2	Elster	7/12/2010	14/6/2011	14/6/2012
	Check Meter	4961781	0.2	Elster	7/12/2010	14/6/2011	14/6/2012
F 3	Main Meter	4862986	0.2	Elster	7/12/2010	14/6/2011	14/6/2012
	Check Meter	4862988	0.2	Elster	7/12/2010	14/6/2011	14/6/2012
F 4	Main Meter	4862984	0.2	Elster	28/7/2010	14/6/2011	14/6/2012
	Check Meter	5126137[1]	0.2	Elster	28/7/2010	14/6/2011	14/6/2012
F 6	Main Meter	4862987	0.2	Elster	28/07/2010	14/6/2011	14/6/2012
	Check Meter	4862982	0.2	Elster	28/7/2010	14/6/2011	14/6/2012

[1]The Check Meter for Feeder 4 has been changed. The old meter no. was 5031636, for which the calibration report is available dated 28 July, 2010.

The calibration frequency is in conformance with the frequency mentioned in the registered PDD. Calibration has been done on annual basis and the calibration results do not show any error in the calibration reports.

The line diagram showing all relevant monitoring points are in Appendix 1.

SECTION D. Data and parameters

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D.1. Data and parameters determined at registration and no monitored during the monitoring period, including default values and factors	
Data / Parameter:	$EF_{OM,y}$
Data unit:	tCO_2e/MWh
Description:	Operating Margin Emission Factor of Western Regional Electricity Grid
Source of data used:	"CO_2 Baseline Database for Indian Power Sector", version 2 published by the Central Electricity Authority, Ministry of Powe , Government of India. The "CO_2 Baseline Database for Indian Power Sector", version 2 is available atwww.cea.nic.in
Value(s) :	0.9985
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Additional comment:	None

Data / Parameter:	$EF_{BM,y}$
Data unit:	tCO_2e/MWh
Description:	Build Margin Emission Factor of Western Regional Electricity Grid
Source of data used:	"CO_2 Baseline Database for Indian Power Sector", version 2 published by the Central Electricity Authority, Ministry of Powe , Government of India. The "CO_2 Baseline Database for Indian Power Sector", version 2 is available at www.cea.nic.in
Value(s) :	0.6300
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Additional comment:	None

Data / Parameter:	$EF_{CM,y}$
Data unit:	tCO_2e/MWh
Description:	Combined Margin Emission Factor of Western Regional Electricity Grid
Source of data used:	"CO_2 Baseline Database for Indian Power Sector", version 2 published by the Central Electricity Authority, Ministry of Powe , Government of India. The "CO_2 Baseline Database for Indian Power Sector" is available at www.cea.nic.in
Value(s) :	0.90641
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Additional comment:	None

D.2. Data and parameters monitored	
Data / Parameter:	**EGy**
Data unit:	MWh (Mega-Watt hour)
Description:	Net electricity supplied to the grid by the machines of the Project
Measured /Calculated /Default:	Calculated
Source of data:	The net electricity supplied by the project activity can be checked from the invoices raised on the State Utility. This apportionment has been done based on the Joint Reading report as recorded by the representative of the Enercon and MSEDCL.
Value(s) of monitored parameter:	22, 273
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	
Measuring/ Reading/ Recording frequency: Calculation method (if applicable):	On Monthly basis Please refer to Section C for the apportionment procedure.
QA/QC procedures applied:	QA/QC procedures will be as implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA). The value of electricity supplied to the grid mentione in the invoices can be cross checked with the cheques received from the State Utility.

	The data (electricity supplied to the grid) will be archived electronically as well as on paper. The data will be kept for the period up to two years after the completion of the crediting d.

Data / Parameter:	**$EG_{JMR,Export}$**
Data unit:	MWh (Mega-Watt hour)
Description:	Electricity Export recorded at main meters connected to the feeders at the MSEDCL substation
Measured /Calculated /Default:	Measured
Source of data:	Electricity export as per the joint reading recorded by the Company representative (Enercon) and State Utility.
Value(s) of monitored parameter:	-
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	The Meters are tri-vector meters of accuracy class 0.2. The details have been explained in the section C. This reading is jointly taken by the representatives of the Company (Enercon) and the state utility.
Measuring/ Reading/ Recording frequency:	On Monthly basis
Calculation method (if applicable): QA/QC procedures applied:	- QA/QC procedures will be as implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA). The calibration of the meters is done once in a year to ensure the accuracy of the meters. The data will be archived electronically as well as on paper. The data will be kept for the period up to two years after the completion of the crediting period.

Data / Parameter:	**$EG_{JMR, Import}$**
Data unit:	MWh (Mega-Watt hour)
Description:	Electricity Import recorded at main meters connected to the feeders at the MSEDCL substation.
Measured /Calculated /Default:	Measured
Source of data:	Electricity import as per the joint reading recorded by the Company representative (Enercon) and State Utility.
Value(s) of monitored parameter:	-

Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	The Meters are tri-vector meters of accuracy class 0.2. The details have been explained in the section C. This reading is jointly taken by the representatives of the Company (Enercon) and the state utility.
Measuring/ Reading/ Recording frequency:	On Monthly basis
Calculation method (if applicable):	-
QA/QC procedures applied:	QA/QC procedures will be as implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA). The calibration of the meters are done once in a year ensure the accuracy of the meters. The data will be archived electronically as well as on paper. The data will be kept for the period up to two years after the ompletion of the crediting period.

Data / Parameter:	N S $EG_{gross, y}$ y=0
Data unit:	MWh (Mega – Watt hour)
Description:	Summation of $EG_{gross, y}$ is the electricity generated from wind turbines of the project activity measured through its panel
Measured /Calculated /Default:	Measured
Source of data:	Generation value from the WTG panels
Value(s) of monitored parameter:	-
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Generation data will be archived from central monitoring station that collects data from the WTG panels.
Measuring/ Reading/ Recording frequency:	On Monthly basis
Calculation method (if applicable):	-

QA/QC procedures applied:	QA/QC procedures will be as implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA). The data will be archived electronically as well as on paper. The data will be kept for the period up to two years after the ompletion of the crediting period.

Data / Parameter:	M S EG gross, y y=0
Data unit:	MWh (Mega – Watt hour)
Description:	Summation of $EG_{gross, y}$ is the electricity generated from individual wind turbines other than the project activity connected to ommon MSEDCL meter measured through its panel.
Measured /Calculated /Default:	Measured
Source of data:	Generation value from the WTG panels
Value(s) of monitored parameter:	-
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Generation data will be archived from central monitoring station that collects data from the WTG panels.
Measuring/ Reading/ Recording frequency:	On Monthly basis
Calculation method (if applicable):	-
QA/QC procedures applied:	QA/QC procedures will be as implemented by MSEDCL pursuant to the provisions of the Power Purchase Agreement (PPA). The data will be archived electronically as well as on paper. The data will be kept for the period up to two years after the ompletion of the crediting period.

Data / Parameter: Data unit:	**EG_{Export}** MWh (Mega-Watt hour)
Description:	Electricity exported by the project activity to the grid
Measured /Calculated /Default:	Calculated as per empirical formula given in section C
Source of data:	Calculated as per empirical formula given in section C
Value(s) of monitored parameter: Indicate what the data are used for (Baseline/ Project/	22, 294 Baseline Emission Calculations

Leakage emission calculations)	
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Calculated as per empirical formula given in section C
Measuring/ Reading/ Recording frequency:	On Monthly basis
Calculation method (if applicable):	-
QA/QC procedures applied:	The data will be archived electronically as well as on paper. The data will be kept for the period up to two years after the ompletion of the crediting period.

Data / Parameter:	**EG_{Import}**
Data unit:	MWh (Mega-Watt hour)
Description:	Electricity Import by the project activity from the grid
Measured /Calculated /Default:	Calculated as per empirical formula given in section C
Source of data:	Calculated as per empirical formula given in section C
Value(s) of monitored parameter:	20.79
Indicate what the data are used for (Baseline/ Project/ Leakage emission calculations)	Baseline Emission Calculations
Monitoring equipment (type, accuracy class, serial number, calibration frequency, date of last calibration, validity)	Calculated as per empirical formula given in section C
Measuring/ Reading/ Recording frequency:	On Monthly basis
Calculation method (if applicable):	-
QA/QC procedures applied:	The data will be archived electronically as well as on paper. T e data will be kept for the period up to two years after the ompletion of the crediting period.

SECTION E. Emission reductions calculation

E.1. Baseline emissions calculation

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As described in the registered PDD, the baseline emission (BEy) = $\mathbf{EG_y * EF_y}$

Where,

BE is baseline emissions in year y, tCO_2e

EGy is the net electricity supplied to the grid in year y and applied directly from the invoice.

EFy *is* the CO_2 emission factor of the grid (0.90641 tCO_2e/ MWh; fixed ex-ante).

Therefore, Baseline Emission calculation for the period of [2]14/12/2010 to 31/07/2011:

Baseline Emission (BEy) = 22, 273 (MWh)[3] * 0.90641 (tCO_2/MWh)

= **20, 188 tCO_2**

E.2. Project emissions calculation

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The project activity uses wind power to generate electricity and hence the emissions from the project activity have been taken as zero.

PEy = 0

E.3. Leakage calculation

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

Ly = 0

E.4. Emission reductions calculation / table

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The total emission reductions achieved during the moni ing period is **20, 188** tCO_2. The details have been provided below as well as in the Emission Reduction (ER) spread sheet.

Total baseline emissions: 20, 188 tCO_2
Total project emissions: Zero
Total leakage: Zero

Total Emission reductions (ERy) = BEy – PEy - Ly
= **20, 188 tCO_2**

[2] The crediting period start date is on 14 December, 2010, but PP has considered the generation from 1st January, 2011 for simplification, to estimate the emission reduction for the monitoring period under conservative approach.

[3]Net electricity supplied to the grid as discussed in the section C.

Month	Net Electricity supplied to Grid (MWh)	Baseline Emission Factor (EFy) (tCO_2e/MWh)	Baseline Emission (tCO_2e)	Project Emission (tCO_2e)	Leakage (tCO_2e)	Emission Reductions (ERy) (tCO_2e)
14/12/2010 - 31/07/2011	22, 273	0.90641	20, 188	0	0	20, 188
Total	22, 273	-	20, 188	0	0	20, 188

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

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Item	Values applied in ex-ante calculation of the registered CDM-PDD	Actual values reached during the monitoring period
Emission reductions (tCO_2e)	**19, 453** (seven months equivalent of annually emission reductions estimated in the registered PDD)	**20, 188**

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

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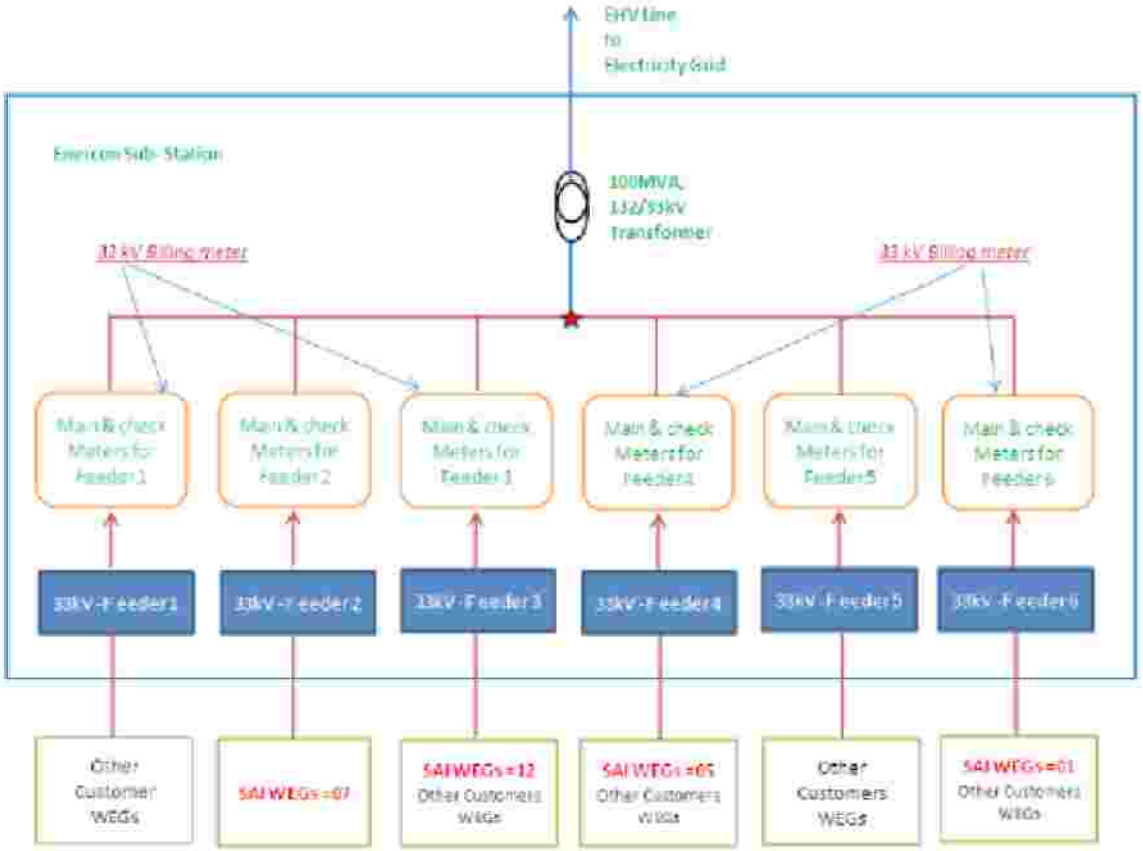
The Emission Reduction (ER) value in the monitoring pe is 3.78 % higher as compared to the value estimated in the PDD, which is due to the higher PLF observed at project site during the monitoring period.

Appendix 1: Line Diagram Showing Relevant Metering Points



History of the document

Version	Date	Nature of revision
01	EB 54, Annex 34 28 May 2010	Initial adoption.
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